

My goal is to be lean, and i want to stay lean forever. i was uninformed, on how hard it would be, i wish those thoughts weren't my only motivation, because it was not enough to rely on when times got hard.

I was more in the mood that, im going to do this, because I want to give it a try. My mission was to figure out what this "calorie in vs. calorie out" scheme was. i now see the industry as an ever changing vocabulary catch-all trap that keeps me wondering how ill keep up, once new terms come out for diets that are hard to explain how it could work better than the one i thought worked good before.

It just bothered me to find out that i would never be the best unless i stayed on top of it. after everything i learned, i felt worse than ever before, and i didnt feel like others were understanding what i learned.

I liked trying to find out which foods lead to weight loss or weight gain, and if there was a "certain order" that we could eat foods in that would lead to faster satiety, and appetite suppression, but i was getting confused because i also wanted to grow muscle fast.

i started to believe that it was circumstantial, but i still think habits can be pinpointed if tracked correctly. i swore against calorie counting. i blamed it for my problems, but i think people eat properly if they are given guidance about changing their efforts.

In high school, I got pizza everyday, but I switched to a plain chicken sandwich with ranch or hot sauce on the side. I never ate the fruits they provided. i liked the salad bar, but just for picking out the croutons.

Walking to my seat, i hated thinking about how people might compare me to others that were actually healthy. At the time, I didn't know what to think about kids that brought their lunch boxes. Now i think that is healthy. takes more effort, planning, and decisions. they have to put effort in.

in college, i had a 15 meal/week plan. i had food in my pantry, and minifridge, but i dont think i ate a single bit of it. Every morning when I wake up, I fix my hair, and I walk over to the cafeteria by myself. i liked my simple life.

Enough protein to sustain life, and have the rest be vegetables

Dont finish everyday with a big fat bowl of happy jelly, but let's see if this makes my back feel better

Science did indicate low fat vegetarian options. Low fat milk, less animal products

If you aren't eating any vegetables then go fuck yourself because you're not normal

We all live to the same ripe age of " whenever your body decides to poop out"

The that everyone gets sick and fills up the hospitals. The government will say, we told you so

Eating healthy is only a small part of building a healthy lifestyle

but I could not get in before 7am, and I would eat by myself (9/10 times).

Traditional morning, for breakfast: Orange juice and a yogurt packed with granola.

On the walk into the buffet. I (without skipping a day) would drink a full glass of water before picking out my food. I ate fairly clean diet regularly getting a hamburger full of toppings, and I never allowed myself to get ice cream.

For dessert, on my way out of the buffet, I liked stopping by the salad bar and getting a big scoop of cranberries to snack on while I walked out. Sometimes I would take a cookie to go. 7 days a week, I timed my day around [going to the gym immediately after dinner] Cafeteria closed at 7. That cookie became an "only because".

Full body everyday, starting at pull ups, going to the bench, dips, chest flies, and then through my routine, always finishing up with abs.

The workouts were fine, I saw growth. Some of my friends critiqued it, especially the ones that didn't workout, but it worked for me, i really enjoy it, and i still like doing it now. I mix up my workout routine every now and then, but I always look forward to doing a full body circuit. Jumping around.

Our campus gym closed at 10, and by the time I got through my 2 hour workout, it was closing it down. I was one of the last ones in there, always getting reminded by the staff, closing in 15 minutes, 10, 5. I walked back to my dorm that was only 5-6 minutes away, with tons of stairs right there near the dorms. I get down to the lobby of the dorms, checked in, and walked up 5 flights of stairs. Everyday, I never took that elevator, except for when i did laundry which was in the basement.

When I'd get up to my dorm, I'd change my shoes and go for my run after dark. Just running side walks, running the perimeter around campus, just trying to stay fit and healthy. I'd usually go for like a 3 mile run. I always went by myself, got back, went up the room, took a shower and got ready for bed. It often involved calling my parents for 15-20 minutes, sitting in the hall, so I didn't disturb my roommate, who liked to play video games. Getting to bed by 11ish.

I didn't really talk to my roommate at all, or my suitemates on the other side of the bathroom. Our hobbies just didn't line up, I was still a little shy and didn't feel comfortable talking to others. I was also judgemental of how i would appear based on the people i hung around.

Throughout the whole 2 years, I still wasn't very outgoing at making friends outside my little group. I just had my routine and stayed comfortable, but my roommate must have been more shy, he left the room for class and to get food, that was it, he was always in the room.

That idea of a dorm suitemate setup is so strange. You either get one you like or the complete opposite. Your school involvement in high school determines how you will get randomly paired. Which I think defines how your college experience will go. My roommate was no problem. we just didn't really talk, but the suitemates on the other side, i didn't know how to deal with them.

First few days, I walked over, knocked, introduced myself, and they thought I was "weird, or different" like okayyy, I guess ill never talk to you again, and I never talked to them again, but a couple weird things happened.

I was the only one contributing toilet paper, towards the end of the semester, i let it run a little low to see what they would do.

I placed the shower curtain and bath mat. The curtain was a single piece instead of the split two piece. Well SOMEONE thought it was necessary to always leave the curtain on the outside of the shower, so the floor and mat were always SOAKED... like how many times do i have to put it on the inside of the tub before you get the signal. Maybe they didn't want their feet

touching the same thing that the rest of us were.

At the end of the semester, I brought home all my stuff, and my mom was like “did you bring home the curtain and the mat”. NOOO i did not.

After breakfast each morning, when I got back to the dorm, I had a few supplements I wanted to take. I didn't buy protein powder yet, but I did get into creatine and another HCl concentrate that I hated so much so I never used it.

I hated the taste of creatine, and I was using a bunch of it. It used to be \$15 for a quart, now it's double that. I started by double scooping it, because someone made me think it would increase uptake to saturation point.

I started by mixing it with water, fyi don't do that, it tastes bad, so then i found out that i could put it in applesauce, to “mask” the flavor... thats BULLSHIT. It tastes bad their too. The creatine ruined the applesauce, i would never make someone do that, horrible idea. I think I did that for over a month, every single morning. Horrible idea, absolute punishment. I made myself eat it all, and went on with my day, usually had to wash it down with a drink.

I got out the door quickly for my 8am classes, then sat in the library, working on homework until my next class. Sometimes I would see someone i knew, but my priorities were not to do really good on homework, nor really good on tests. I just wanted to go to the gym. Multiple times a day, randomly throughout the week just to burn time.

I was making really good progress with my fitness goals, I was so proud to be 160 pounds, 5'11" fairly lean. I was 160 pounds in 8th grade, but I wanted to get thinner. I wanted my abs to be ingrained like what I saw on social media, but I also wanted the attention that other people at school had. Yet, I didn't hang around much to talk.

At some point in the next few months, school ended, I went on with my life, got out of the dorms, and the next semester came up. I got a set up at a townhouse and moved in with two dental/med school students! I probably should have spent more time around them, and matched my schedule and mindset to theirs, and that might have put me on the right track, but I didn't, so my question to myself is “was becoming a doctor that big of a goal of mine?”

I signed a 1 year contract. I enjoyed the first few months there. I had the freedom of living on my own. Living there was fine. It was a good set up. I felt pressure to meet expectations, but didn't comply. I spent most of my time at my friend Richie's apartment. I think it was an easy chance to escape the expectations of school/work priorities. If I went back to my townhouse, I figured life would be more strict.

I didn't want to live by those expectations. I wanted to set my own habits, and let my free personality come out. I resonate with this, and see my lack of learning, yet I still feel conflicted fighting between these two goals, so my life lesson is not to chase fitness goals the way I did. The time commitment rips away from any other goal.

At least for me, I let fitness take higher concern. I still don't like that I pursued this goal. I downloaded the calorie counting app. I was buying my own groceries and food, and I wasn't cooking meals. I liked it easy. I limited my calorie intake to 2000 calories a day.

I overestimated the calories in everything I ate. Some days I was, and other days “I thought I was”. Tracking everything was so unrealistic. I would forget snacks, and by the time i learned how to track snacks. My meal routine revolved around snacking.

Keeping myself away from food, and away from the thought of eating became a much bigger deal than counting calories. I was never informed that this food tracking had taken over my life, and nobody could tell me because I was the only one that knew my schedule.

I was *really aware* that eggs had 90 calories, and that vodka had 90 calories, and oatmeal had 160 calories, but I would get chic-fil-a sauce tubs for free, and forgot to track those. Remember that I overestimated.

It kind of scared me when I realized it actually did have calories, because I thought back to how many times I had it (but hey, its doesn't add up to that much in reality). Just something I had, no big deal, but that sauce was so-much-more of a treat. I truly didn't get it very often.

I drove back to my parents house every other weekend (it's a 4 hour drive). I'd leave KC Friday night, stay with my parents for the weekend and get back to KC on Sunday night with a bunch of food in freezer bags. So I have stayed very reliant. I need to take initiative on things that will help me earn my own independence.

My parents have saved me some money, and allowed me to take dozens of risks that should have stayed in savings to put me closer to furthering myself. I'm still learning the importance of moving to the next phase and proving that I can afford life on my own. The problem being that my parents endure the stress of intervening if anything goes wrong. I need to work harder, with smarter, more determined thought to give my parents a break.

If i dont, i'm being generous, and nice to everyone else, by giving coworkers no competition, and my parents a challenge that never gets easier, until the load gets taken off. My question is how much a burden is a child that relies on their parents at different phases in life? How much do they actually pay for me?

I was a frequent shopper in KC at Aldi's, going there for most of my food, I remember getting apples, and meats I don't remember buying much else.

I always needed and wanted a strict routine, I had at least one apple a day. One time I ran out, but I wanted one, thought I needed one, and I was hungry, so I'm looking through the fridge for something else healthy and sweet to replace the missing gap in my hunger.

I found an apple and convinced myself, I can just take one of John's, I'll go to the store later and buy my own and replace his. I buy reds, he likes greens, oh well, I took one, replaced it with a red one, he had to know I took one... but he never said anything about it. I guess I could have just bought an extra green as a single.

One of my other favorite things to eat was a peanut butter and honey sandwich. I tell you what, it tastes really good, but it is not healthy! AT ALL! (The only thing unhealthy about it, is having it EVERYDAY). I ate it everyday, sometimes twice a day, white bunny bread, jiffy peanut butter, and a bunch of honey! I did this a lot growing up when I was living with my parents. Coming home from high school, prepping my sandwich and a glass of milk, and sitting down to watch spongebob.

If anyone ever saw me prepping that sandwich, they ALWAYS had to comment. GEEZZ that's a lot of peanut butter, like so what, it tastes good. I thought it was fine, but people just liked to laugh, I got embarrassed but it's not the end of the world, it didn't impact me enough to make me stop doing it. They all said it was over an inch thick... i didn't think it was that much, but we also never got out a ruler... id say maybe a half inch. Still a lot more than moderation, but now looking back, it's a lotttt of calories (but it's filling, and leaves me full-filled for a long time).

I went for runs around the neighborhood, usually after dark. I would go into a nearby high school and run a lap around their track as part of my route. Nobody ever stopped me to stay. I couldn't but they finally started locking the gate.

I climbed the gate a couple times and told my self it's not like I'm hurting anyone.

Eventually i gave up, but during that time it was importantly for me to keep my routine going.

Around the time i stopped running, i was getting low energy from my dieting and counting calories. I have memories of this time frame being the “when everything started”,

During this point of time, i was at my highest feeling of freedom. Ask of my classes were online, covid happened. I thought of the choice to move back with my parents. I still had a 1 year contract to pay \$700 a month, kind of sucked, but what's \$4000 in a lifetime.

I wish i would have paid for the experience i could have had there in kc, rather than what i chose to do with my time at home.

[[[I probably would have grown to be a stronger, more independent person if I would have stayed out there, but the safety of home is enjoyable. The idea of being home was nice.

I really enjoyed where i loved and i knew it wouldn't last forever. So being there was worth it to me. This home has now become a spiritual place. More than just seeing myself happy there. Its like going to my favorite cure on top of the hill everyday. I have pointed out favorite trees, parking spot, barns, trails, the ways we have lived our lives around here, and the pieces to the story that we have walked past. I don't want to take for granted.

Emotions come up as I reminisce on the experiences i took for granted and past on. I dont know where my life would be if any of these memories would have turned out the way i thought they would. Yet, at that time, it was so important to me that these dreams would come to me now.

I wish i could distinguish between who i am now, and the person i would have been today, in the case that these future-pictures came true. Im happy with the thoughts that im having now, but it feels like im future casting again, and restarting the phase all over. Just with different ideas than what i had before.

I think it has to do with what im currently working on, or working towards. The projects that i've theorized, and put time/money into seem to have a direct influence on my thought projections.

Since im still on this path. Still uncommitted to a career, I wish i would have gone down a different path, i wish i would have done something completely different with all that time. In hopes that maybe i would have liked the spot i got placed.

Yet, i can still ignore all these past ideas, and momentarily believe that i'll be happiest if i do X. Everything will line up and be perfect if i do X. Then moments later, i wonder if i actually committed to that, would i be making the right decision for myself.]]]

I actually spend a few hours with a homeless man a couple weeks ago. What i learned was he has been perpetually spiralling in these thoughts. He had to be independent because he had nobody to rely on. He had no family to stay with anymore. He had no friends that would take him in.

As i listened to his story, he mentioned that the furthest he had ever walked was 20 miles in one day. Not to the next town, but in circles, hoping to find the conclusion. Hoping to find the answers to the questions that we may all be asking ourselves. He hoped desperately to find them. To the point of outward despair, unable to have a full length conversation with me, without letting me know that he's having these problems, and having these fears.

If only he/and or I, could completely differentiate ourselves from the situation we are in right now, and separate ourselves to a completely different spectrum of understanding the world. Maybe me/and him, would make progress on a tangible goal if we would reorient our

efforts/time.

Maybe instead of delaying my desires, impulsively thinking about what i could be doing instead. I could actually learn something. I could actually do something in the physical world. Out here where other people can see. Maybe it'll turn into something amazing.

I don't want to post and share the creative ideas I have. It's easier and more satisfying to simmer and let them be within myself. Putting effort into them wouldn't be my first choice. If I had to put effort in, I'd probably do something else with it.

I want what I do to be intentional, I want people to see my work in line with an end goal. I try to attach everything i've put effort in together to form one grand scheme goal, that makes everything worth while. Ridiculous i know. It's not realistic, or the way anyone's life will work. We have to inevitably make mistakes and move on from them. I think i just need a friendly reminder that i dont always have to get something from it, or do something with it. Sometimes it really was just a waste of time. Hard for me to sit with and accept those thoughts. I dont know if they are true.

I mean we live in a new world, with new inventions, nobody in history has ever been in this state of the world that we are in right now to give us facts about the reliance on if something will work. For some reason, nobody wants to, nor can anybody identify future relevance and importance based on past or current situations.

Internal hypothesization is a self problem, not something other people can or want to get involved with. I have some life lessons. Some ive learned in the last 10 days of working as a carpentry apprentice. I've been surprised by the number of times i've messed up, dozens more than what I would have predicted prior to starting. I never knew how frustrated people could get based on my own incompetence.

Clearly I was unprepared for the magnitude of expectations that were going to be thrown at me. Most mistakes were simple, yes, dumb mistakes, but day after day, I'm exhausted, and not listening very well.

Enough with the life lessons. I was discussing what I actually felt during my appetite failure. There must be a link between the brain and hunger hormones. Just like any drug, the overuse can cause a complete disappearance of neurotransmitter presence. In my unprofessional opinion, based on the phrase "burned out", these levels can drop below a threshold indicating "unmeasurable".

I believe that thoughts themselves can create and overcorrect for the presence of a chemical environment. By increasing the presence of, to a level above normal functioning, by the act of conscious thinking, we might experience a sense of unuse, if the hormones are overcorrected by thoughts, and reliant on the presence of thoughts, then the action of not thinking about could result in lack of.

As I choose to be non-compliant, in hopes to forget about these thoughts, and trade them out. The body has a hard time letting go of the previously built structures. Beyond just the brain/neurotransmitter relationship, there must be another relationship going on that involves the brain and another system, and a system that has routes without brain intervention.

What I experience is the most important concept to me. At times of overworking with a calorie intake too low, eating becomes very desirable. Even if I've told myself I didn't want to eat anymore. I would struggle to let myself eat more if I was feeling full. Except if i was hungry i should have found a way to eat until i knew it was time to stop. Knowing when to stop once I was

in this hunger-pocket was my personal problem

I've abused my eating routine, and I have abandoned structure. I don't have a reliable safe strategy to avoid binge eating. I don't even remember the first time I purposely overate. I just remember cutting my calories short, everyday, and continuing to come up with ways to cut my calories shorter.

I lived with a mindset that said, "live on as little as you can. See how close you can stay to nothing." During the time of my best performance when i had full control of my calorie intake. Never feeling weak, or stressed. I tried to cut a corner and rush.

I was eating a few snacks a day, and convinced that I could keep going. I tried to throw up my food one day, and it worked. It came easy. I just remember checking out the window to make sure nobody was coming home. I knew that i was doing something wrong, and I couldn't bare to know that someone might be watching/listening.

At this time my mindset was to try to lose weight even when I didn't overeat. I had the power over the situation because I had control. I could throw up without even finishing my meal. I could get up and leave without finishing. Its like I was learning how to never get full. I didn't want to have that feeling because I knew that was a pleasure, and I didn't want to have a crutch to get into.

I'm not a person to follow after. I didn't live the lifestyle i wanted.

One day i felt embarrassed after telling a friend that i wanted to try the speed world record for how much peanut butter i could eat. I never tried, but it's not the worst idea, based on all the ugly nights i had put myself through years down the road.

As my story continues, my eating behavior developed to overthinking. It's almost like all these days led to the thoughts i had years down the road, and bled into what my behavior became. Every google search i must have made, night out, meal avoided, or snack calorie counted, turned me into the chaotic figure i never expected i would have become.

Because of that world record video of a guy wolfing down a jar of peanut butter on youtube, i went somewhere in my mind i shouldn't have gone. I built behaviors that i regretted. Everyday i spend loaping, prefaced the mindset i had for years. I had no idea where my mind was going, or where my mind was taking me, but i went on a venture that felt like "I was being pulled through."

The image that comes to mind is being yanked my a rope around my waste, giving my arms and legs no control to change the direction that im going.



Somewhere in my mind, I thought this was okay, and i wanted it to be okay, so i kept trying it, seeing if i could get something from it. Hopefully, just maybe ill learn something from it before its all over.

I eventually learned and was able to attach my behavior to what people call an eating disorder. Since, it's not a normalized behavior, and it doesn't constitute healthy behaviors or results, its not a recommended approach. Moreso rather, a confide in mistakes being made, leading against the personal goals being pursued.

I had learned that if my stomach hurt from eating too much food, I could throw it up. That switched in my mind to: Whatever i eat, no matter how much i eat, i know i can throw it up and pretend like "i ate nothing". At least thats what my body would think.

I think i had originally learned the trick from a friend at a friend's apartment who "pulled trig" because he took a second dose of medicine he was only supposed to have one of that day.

I guess i took that idea. I wasn't really sure of what an eating disorder was. I mean i had heard of people having anorexia, and I've heard people use that as a derogatory name towards me when i was trying to lose weight, but one day I had found the word bulimic. I was like "oh shit", i think i have that.

I dont think there is much information of people disclosing their experiences online, so i never really knew the answer to what people are doing that have that. Nobody really described it the way i needed it to be. Nobody had mentioned the details of what i had experienced, so i didn't know if i was doing something worse, or if other people have fit into this same category.

I first started claiming I wanted to lose weight back in 8th grade.

Right to my face, in front of a group, i remember one person asking if i was anorexic. Worried. Like why are you trying to lose weight, wondering what was wrong with where i was, and wondering why i thought there was something wrong with the life that i was already living? Writing this is the first time i've thought of this, but what he onto something?

From what i've recently read about hospital nutrition, undernourishment is an indicator that a patient needs attention from a dietitian. As if it is abnormal. The nutrition care assessment is designed to refill diet deficiencies. Complications like further weight loss, and muscle loss are observed. Assuming there will be a disease diagnosis, then there will be a known corresponding cause.

Some likely causes are:

Reduced oral intake due to disease: Cancer (appetite suppression from cytokines, taste changes). Chronic illness/heart failure/ COPD/ kidney disease (early satiety, fatigue). Infections (fever, inflammation).

Malabsorption, GI dysfunction, Endocrine Disorders: Gastrointestinal disorders (Crohn's, ulcerative colitis, celiac disease). Pancreatic insufficiency (poor fat digestion). Bile/liver issue (poor nutrient absorption). Uncontrolled diabetes (especially type 1, leading to catabolism). Adrenal insufficiency. Pituitary disorders (affecting growth hormone and cortisol).

Medication side effects: Nausea/vomiting (chemotherapy, antibiotics, opioids). Taste alterations (metallic, bitter tastes). Anorexic effects (certain psychiatric medications).

Increased metabolic needs: Hypermetabolism (sepsis, burns, cancer). Fever/infection (calories burned faster than intake). Post-surgical Stress (body demands protein and energy for healing). Hyperthyroidism (causing weight loss and appetite changes).

Physical limitations: Difficulty chewing/swallowing (dysphagia). Dental problems. Fatigue/weakness (preventing meal preparation, feeding).

Socioeconomic and social factors: limited access to nutritious foods at home prior to admission. Poor social support. Mental health issues (depression, anxiety).

Malnutrition from prolonged Hospital Stay: Not eating enough because of hospital routines, fasting for tests. Inadequate hospital food intake

Neurological or psychiatric conditions: Stroke (affecting swallowing or appetite). Dementia causing forgetting to eat. Severe depression or anorexia nervosa.

Starvation worsens the illness and creates a feedback loop. Altered reward processing, restriction feels relieving, not unpleasant. Heightened anxiety circuitry. Reduced interoceptive awareness (difficulty sensing hunger/fullness). Rigid, obsessive thinking patterns.

Bradycardia, hypertension, risk of arrhythmias, cognitive slowing, poor concentration, emotional blunting, increased obsessionality. Muscle wasting, osteopenia/osteoporosis, stress fractures, loss of menstrual cycle (hypothalamic amenorrhea), low testosterone in males, thyroid suppression, infertility, low potassium, sodium, phosphate, risk of refeeding syndrome.

Perfectionism, high self-control, harm avoidance, difficulty with emotional expression, identity tied to achievement or "being good". Narrowed focus (food, numbers, rules). Social withdrawal feels protective, not lonely. These traits often pre-date the eating disorder.

Amygdala (fear center) becomes hypersensitive. Eating triggers panic-like responses. Restriction reduces anxiety→negative reinforcement. Taking away results in a positive effect. Brain begins to reward dopamine for not eating. Prefrontal cortex function declines. Black-and-white thinking intensifies. Flexibility and perspectives shrink.

Interoception is the collection of senses providing information to the organism about the internal state of the body.^{[1][2]} This can be both conscious and subconscious. It encompasses the brain's process of integrating signals relayed from the body into specific subregions—like the brainstem, thalamus, insula, somatosensory, and anterior cingulate cortex—allowing for a complex and highly accurate representation of the physiological state of the body.^{[3][4]} This is important for maintaining homeostatic conditions^[5] in the body and, potentially, facilitating self-awareness.

Starvation blunts hunger cues. Eating feels foreign, uncomfortable, or threatening. Even small meals cause panic. Leptin ↓ disrupts appetite regulation. Ghrelin ↑ hunger signaling becomes chaotic. Cortisol ↑ chronic stress state. Reduced glucose → impaired judgement.

Overtime: fear circuits calm, cognitive flexibility returns, hunger cues normalize, the loop weakens.

I grew up in an environment with a developed household, full of food. When I moved out, I started buying food with a “healthy” mindset. Even though I used to eat these foods all the time, I decided certain foods weren’t healthy anymore.

I was a big believer in low calorie foods. I thought absorption and bioavailability was the underlying secret to calories. Some of my go to zero calorie options were. Carrots. black coffee, flavored teas, zero-calorie sodas, cucumbers, cauliflower, low calorie pudding or Jello, celery with mustard, iceberg lettuce with hot sauce, microwaved onion, 0 calorie salad dressings (walden farms), watered down protein shakes, protein powder muffin.

I would not allow myself to have fatty meat, bread, potatoes, berries, fruit, nuts. I thought it all had either too much fat, or too much sugar. I now believe in foods with sustenance^.

I was depriving myself, I would be trying to study for hours, going through packs and packs of gum, trying to make it through the day without eating, because i felt like once i start eating. I was going to keep getting up to snack, and get more, and more, and more all day. I told myself if i’m going to make it through the day, and if i don’t i’ll be eating all day otherwise, and if im going to eat all day, I might as well eat zero calorie stuff, so then it won’t add up to so much.

I thought i could start by skipping meals every other day. P.S. It must have taken me 6+ months of calorie counting before getting malnourished. Before i started experiencing temptations and guilt swings.

I was becoming afraid of my calorie counter, knowing as i opened up the app, that i was already approaching 1500-2000. Sometimes I would be at 2000 calories by the end of lunch. So I told myself I guess I need to stay hungry until tomorrow. There was no day that I would purposefully allow myself to go over. 2000 became my max limit.

I would tell myself: I’m starving, but I don’t want to gain weight, and i cant have any more food now, because i know my parents will make food when i get home, so that just means i have to wait until 6PM to eat. It felt like the time was too far away.

THIS WAS ALWAYS GOING THROUGH MY MIND... and it’s bullshit, it’s wasn’t fair, why was i telling myself to lose more weight, or stay this thin. WHY WAS IT SO IMPORTANT TO ME. Why can’t i just let myself gain the weight.

I reminded myself everyday. “This isn’t working anymore. I need to find a way to make it stop.” I kept giving in, even though I tried slowly introducing calories, I had a new trick that meant i had to restrict calories in different time windows throughout the day.

Maybe the lack of consistency was the problem. I got really good at thinking back to everything i had ate that day, and the day before. I had no structured meals. No meal prep. No familiar meals. It was moreso about rounding up food, from whatever i could find throughout the day.

A thought that constantly went through my mind was “WELP, that was way too much. i blew the day, i had way too many calories... my day is done... and i cant mess up any worse”

During the time of having these thoughts, Im scavenging through the cabinets, fridges, and drawers. Looking at the sweets. MORE. Trying to decide between the low calorie options i can use to finish up my MEAL.

I thought it would be smart to buy emergency treats for times like this, but i ended up just having emergency moments in my schedule, where the clock is ticking, i need to get going. Its time to go in 5 minutes, and instead of being early anywhere, i filled that time with more

snacking. Eating until the last minute, and even carrying food out the door with me to my car

The smart choice was the last option. I resorted to stupidity. Irrationality. Impulse and easy temptation first. I walked around feeling like I had just sinned.

Let me finish with just one rice cake... okay now just one last cookie. Well... now that I've had one. I might as well have two.

I think back to what started adding up to so many calories. Well that was 200, I had 2, that's not too bad, then I had 50, and then I went back and got 200 more. Fuck.

Well, that added up quick. *I'm still hungry* just a little bit more, and I'll call it quits. I COMPLETELY give in every time to MORE. I walk myself through that scenario. Counting in my head. I'm miserable, I want to get rid of it, I tell myself that wasn't healthy. But I enjoyed all the food in the moment, and I'm going to make sure I enjoy the rest of the food I have the rest of the day.

My mindset would switch*

I started rummaging through, looking for the foods that would be least obviously missing in the back of the cabinets, drawers, and fridge, that nobody wanted to eat anyways. Taking one at a time. Eat eat chew chew swallow. Looking for the next one. Ravaging. Raving, reminiscing.

Throwing away the wrappers in my trash can, hiding all the evidence, bringing it all with me. Nothing in my schedule was that important, nothing at school I couldn't miss. Covid online classes, no job, no routine, no seriousness. No responsibilities.

This happened for months, and I to my knowledge nobody knew the depths of my weight loss story, I'm going to supplement superstore seeing great results, muscle is dropping slightly but body fat is in the single digits, finally down 6%, 5, 4, 3 percent body fat on the scanner, and my abs are still not showing as much as I want them to.

So I kept trying to get the weight down. I'm down to 140, 135, 130. The abs are almost all there. 127. That's as low as I got. My abs finally started showing without me needing to flex. I was looking in the mirror multiple times a day, stepping on the scale multiple times a day, and seeing fluctuations in the number, by up to 10 pounds throughout the day.

Waking up at 130, by mid afternoon up to 137. Water, food, etc. "fat I guess could come" I just wanted to get lean enough and proud enough to where I could get a picture of myself and post it. I was impressed with myself most mornings when I got up, there was just a little bit left to go. I had to try to get there.

The problem was that I had no tangible concept of my desired look. I had role models on social media, but the body I wanted was different, and my body was clearly different. I wanted something that was incomparable to what anyone else had. I didn't think I had enough muscle to look better, so the problem went on. No matter how much closer I got, I asked if I can get to this state of perfection?

My family finally started to turn outwardly, and voice something. That they knew something was going on, but it's not like they could stay home and babysit me. I refused to take help, they came up with options, but I said I could figure it out on my own, and I guess you could say I finally did, but it was not in the timeframe that everyone trying to help me expected. I took my time getting back to normal. At first I still had a goal to achieve. A mental promise that I would figure out, before I gave up, I needed to wrap my mind around weight loss. Everything from healthy food, calories, exercise, longevity, strength training, rugged discipline, flavors, and what it was like to be shredded. I had to get to a place where I could say, I did that. I had just hoped I could walk around forever, and say, I'm there. I've been here.

I've been this way for *this* long.

A part of my goal became getting through the day without anyone having to worry. Anyway i could appear fine despite having to visit with each one of these people.

One of the first signs that really scared my dad was when I showed that I could still do a squat, and i couldn't get back up. i did not have enough strength in my knees and legs.

I wanted to brush it off like it was no big deal, because I just didn't want myself to worry. I know I'm doing this to myself, but don't want to take the blame for it. I didn't want to feel sad about my situation, because it was the lifestyle I chose, and I didn't want to dislike it. No matter what anyone else thought, I chose to be happy.

What hurts more than anything is seeing the disappointment in someone's eyes when they finally look at you with intention, and instead of getting to imagine they think positively of me, hearing them outwardly express that they don't like the look i chose. Showing that they found out something deeper than anyone passing by seemed to.

My brother knew first, and didn't say anything. Then my mom found out months later, as she caught me coming back into the house late at night, and she was mad at my brother for not telling her.

Then my dad found out like a month after that, and now my mom is mad at my dad for not knowing or doing anything about it, and then we all had to defend each other.

At this point, i started describing why i would be coming in from being outside late. I was starting to have to be a little more strategic, trying to be quiet, run off, being quick, because that seemed necessary.

I was able to control myself during the day for the most part, but there were a few times i would wake up in the middle of the night starving and need to eat, thats when all my sketchy behavior would start. Eventually it started to seep into the day time, and I'd start disappearing during the daylight.

I thought i could start with just a little, well at like 1-2 o'clock in the morning, id be snacking, and it would turn into a binge on desserts and cookies, because if you are going to binge, why would you do it on anything healthy? Why would i fill myself up with more broccoli and cauliflower.

- Anyways i start eating, its the middle of the night, nobody is awake, its pitch dark and quiet everywhere in the house, i end up overeating, running out of the house.

- I kept this up for like a year, this happened day after day, month after month, and my body got weak.

I would go to my spot and my gag reflex became unresponsive, but i kept going until it gives in, but sometime it doesn't and i had already committed to overeating, and i had already been up for a half hour.

I was miserable after the binge, because my stomach was full and the food wasn't leaving. My diaphragm and abdominal muscle would be so weak and sore after trying for the past hour, and it just wouldn't be enough. I knew there was food still left in my stomach so i just had to keep going.

There was something weird about the mind during it, where it would not let you give up and be satisfied and stop until it was all out, and you could kind of tell when there was nothing left, especially when nothing is coming anymore.

I knew i had about an hour to two before the food drops from the stomach to the small

intestine, sometimes quicker, but i couldn't just stop, i would have to look up tricks to increase nausea, like drinking a raw egg, chucking water, or mixing baking soda sloshing it around in your stomach by running around or jumping to loosen it up.

After doing this for so long, i didn't make any progress, at this point im embarrassed

Maybe the best diet is 75/25 or even better 66/33

When i went back to kc to move out all my stuff, there was a loaf of white bunny bread that was hidden up in the shadows of one of the cabinets, and after MONTHS it was still good, no mold, no problems

one time i stood there for 2 hours. - I would be trying so hard, crying because i just want to be done. I dont want to do this anymore but i have to, its addicting and i cant stop, i just want my food, and i want to enjoy it, but i always make myself miserable and i dont know how to control it. I cant stop.

- I did it all year long, through all the seasons, middle of winter, snow on the ground, pouring down rain, hottest day of the summer. I didn't get to pick when my binge happened but when it did, i had to go. Not like i was planning it beforehand either, like hmmm if i eat now the timing is bad, if i wait another hour maybe it would work out better, no, it was just all about being in the moment and not knowing how to control your willpower.
- There was one time at a family event i had eaten too much, and couldnt stop and i had to get rid of it and they all wondered where i went for 2 hours. There was a time i was out on the river with family and ate too much and i could get rid of it. I had started my binge, finished my stomach off, full to the brim, but had nowhere to go. I felt stuck, I couldn't do anything about it, just had to allow it all to pass through and hope. I had to just hope it wouldn't all get absorbed because a binge seems to be around 10,000 calories.
- I dont know if you have thought about this at all while reading this, but that is a lot of food being wasted. Its expensive... addictions are expensive. Like my mom refers back to it sometimes and likes to remind me how expensive grocery bills were because he kept having to buy more food. The stomach expands a lot, and it can hold a lot of food, and the more you expand it, the more it can next time, and the harder it is to feel full each proceeding time. Another thing about binging is you really do eat until the end of your limits. You get to a mindset where the only thing that can stop you is hitting the limit of the stomach where you are so bloated that it can't hold anymore and food starts to stop at the lower esophageal sphincter, and it wont go down any further, full to the absolute brim. I kept eating because the foods i was eating were not fulfilling, and my stomach would be full, but i still had an uncontrollable appetite. Food starts to have very little flavor, like yeah it still tastes good, but you completely forget about that aspect, it all tastes like carbs. All melding together as if the flavor is bland, but i would just keep going. Sure i could have just went out and purged right away as soon as i thought i overate, but there was a risk/reward analysis, i can get the same results either way of being purging it all up, and absorb nothing. The only different in the timing is whether or not i get "this" much enjoyment, or "THIS" much enjoyment out of the eating beforehand,

really the only cost is the time invested during the eating a purging stage, and the cost of the food itself which is expensive, and the time you have to go to the grocery store and spend restocking, but that is the last thing going through your mind. You are addicted and you just want the fix.

- Throughout this whole process i was writing down my thoughts, my affirmations. I learned a lot, but there was one unique night and i don't know the date, i just remembered truly regretting every getting into this in the first place. Truly wanting to give up and call it quits, i thought this habit was a part of my identity, and i just didn't know what to do anymore, i sincerely apologized to myself and wanted to find a way out of it. I equate that to getting back into religion and searching for a higher power. - I reached a point where i knew i didn't do this all on my own, i needed help, and i needed to truly repent and give in, now theres still a lot of skepticism i have to certain religions but im thankful for whatever realization i had. I have this external motivation now to become a better version of myself because i truly felt like i hit rock bottom, at least thats what i told myself.
- My reputation at this point in my life wasn't the best, my brothers friends were asking if i was a drug dealer because of how gaunt i was. Yet, I was somewhat confident because i could show off my abs, but I was dressing like i shop at walmart, and that has really bee a part of the way i always dressed, but i had a lot of sharp facial features, and hair was thinning, bad acne, and i was in a constant brain fog. I have been told that i had a quick trigger, i was rude, and fast to get mad, and thats not the person i am. If you talk to me now, and before then, im calm and cool headed. I dont get angry, i never lash out. Im so calm tempered. I would never make fun of someone or hurt their feelings because i know how it feels. I knew i was starting from a low place and I just wanted to grow from there. I think it is a good foundation for the rest of my life, and although i regret going through it, i think it was very beneficial to my future and the way i look at life and choose my habits.
- Some of the things i regretted were losing two years of muscle growth, i was getting great gains at the start and i set myself back to ground 0. Now, finally getting back to where i started. I regret all the time i could have spent towards more beneficial things. Like learning, studyign, doing better in school, could have been participating more. I could have had more personal growth in that time period, could have spent that time building relationships, missed a lot of life experiences because i spent that time doing other deeds. I avoided events in fear, embarrassment of needing to explain and share to others. Problems with digestion over that time period, becoming infertile for a short time period, possible unknown damage to organs and muscles. The money I wasted away wasn't mine, the money I wasted was mine. The pain and hardship of suffering through it.
- There were a few thing that were happening to my body that i was the only one aware of, and still even though im going to try and explain it, im the only one that truly will know - There were signs my body was giving off that were signifying that this bigger organism "me" may not be alive for too much longer if i keep it up. Like organs were shutting down, muscles were not working. I already explained the weak legs, but the hair on the head was thinning, and i have thick hair now. I was getting bald hair spots on my leg. My nails were becoming frail. weak digestive system. Weak bladder. Low hormone production. Low libido. Low testosterone. Always low energy. Thinning hair, and losing hair. I would get these random

bald spots on the leg. Numbness in hands and legs, like when I kneeled down on my knee caps there was a numb tingling sensation. Dry hands. Lips and hands can easily chap and/or turn purple standing outside in the winter. Always cold, and often to the point where you can't warm up, almost like you are cold blooded. I would have the heat on full blast in my car and feel my burning skin, but on the inside, I was still cold. -

- Then there was a time when I was with my grandparents and they were passing the blood pressure/heart rate monitor around and I was sitting at 35 BPM. The worst part that upsets me the most is all day everyday, all i could think about was food. Like during any activity, walking to class, in class, sitting around, talking to people, your mind is like where is the food, and we know where it is, so you're just debating yourself, in your thoughts like why don't you get some.
- I was just being limited in so many areas of life, like the basic daily tasks were difficult.

Arrowhead at the lake gravel bar

- During this summer i had been studying for my dental admissions test, while in this low place, i was studying 6+ hours a day, had an episode almost every day in this stage of my life, but this test covers, algebra, biology, general chemistry, organic chemistry, perceptual ability, and reading comprehension. I spend a majority of my time studying biology and organic chemistry, and of course those were some of my better scores on the test, but i did average overall. The problem was i spent all this time studying, not working, making no money, and i studied for like 6 months total, 3 months full time over the summer. The week before the test, i was doing a recap, and i dont know if i can blame this on my eating disorder and the brains dysfunction and inability to create memories as easily, but i'm going to blame my malnourishment anyway, and when i tell you it seemed like i remembered nothing. It felt like I had studied all summer and could recall nothing from memory, it seemed all fresh. Like... I'm screwed, the tests felt easy while i was taking it, and the score didn't represent how I felt answering the questions but i have my biases. That was just a direct sign that I told people and myself that something was wrong, and I use that example when I'm explaining the importance of proper nutrition to others.
- One of the final wake up calls that helped me realized i need to change my ways was during one of my episodes where i chugged water, and that night i wasn't able to purge, i could get rid of any of the processed foods (high in salt) or the water, and it all got absorbed, the next few days, my skin was bloated all around my body, legs and ankles especially. I didn't understand what was happening and i was doing as much research as I could to find out what to do, calling a bunch of different hotlines, and nothing would help, there was no advice on this subject. I just had to ride it out. I just didn't want cells to rupture and burst from being so plump and diluted, that i ended up killing myself from flooding my body with water, disturbing the electrolyte imbalance or any other physiological disturbance. Sure it was scary, but apparently it wasn't enough to stop me. Its an addiction right, and life went on.

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- My habits and problems continued to arise. Seemed like this addiction was always causing me extra problems, stresses, and worries, and all of them were starting to become unnecessary and unavoidable if i would just stop. So a problem i had is anytime i was getting ready to leave the house, i started eating extra because i knew i wouldn't be around food for a couple hours. Well there was one instance during the school semester where i was home for the weekend and i was getting ready to head back to KC for one of my classes, and i decided to wait until monday morning to leave, i gave myself plenty of time to get to school and be early for class. As i was getting ready to leave, i decided i needed to eat a little more to prepare myself for the 4 hour drive, and it turned into a binge, and i had an episode. Now i'm running late, im speeding of course, in a 60, and i crest a hill, and right at the bottom of the hill there is a cop running radar. I'm 500 yards back, and i decide to slow down nonchalant from 73, down to 70, 65, and i get this county sheriff and guess who decides to pull out. I'm shaking, they speed up, they get right behind me, and flip on the lights, write me up for 13 over. Life lesson is if you see a cop and you're speeding slam on the breaks. Now maybe I would have been speeding either way, whether I left early or not, but getting my only speeding ticket ever, did not make my day any better. There were other incidents i had just coming home from school, or just short drives where i made a mistake, overate, and i'm in the middle of nowhere, and i just sneak off into a farmfield or abandoned area and get the job done. All these regretted memories of sneaking off, making stupid mistakes and putting myself in bad situations just because i had an addiction that i felt i had to take care of.

- I was really starting to notice how i was becoming and productivity was poor. Motivation to do an energy exerting activity was hard to come by. Like going up a flight of stairs was a task, and i tell you what... I took my sweet ole time walking the stairs, but I always made myself do it. Refused to take the elevator, anywhere I went. Then studying for a class or doing homework, anytime i got interrupted, like the website would be loading i would get up, and go walk around for food, or every 10 questions answered or every page gone through i would get up again. Like, it felt like I could never get anything done because I was always either spending all my time looking for food, eating food, or expelling the food.

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- So as life continued, the next school semester had started, i have new living arrangements, where one of my friend's from college had parents with a unique lifestyle where they hosted foreign exchange students. Well they had an extra room in their house, and the were moving across town, not too big of a deal, because they still let me live with them. It was a house about 30 minutes from campus, really nice house really nice neighborhood, and they only charged me \$200 a month to stay with them, and were willing to let me eat with them for dinner every night. Well little did they know i had this eating disorder, and to be honest, i dont know if they ever knew, but they had to of over time, but we never discussed it and make it clear. A few instances popped up, and a few interesting conversations where they had enough information to make an informed assumption.

- So there is a handful of stories to tell here. Kind of embarrassing, hopefully they never read it, but not the end of the world if they do... So a part of our daily routine and their

families habits was to cook dinner every night together, and have everyone sit together and eat what was prepared. Well, at this stage of my life, i had my strong opinions on what was healthy and what was not. One of the things i pretty much refused to eat was rice, or other high carb food sources. Just so happens that items like that are very abundant, easy to prepare, and a good filler material.

- I tried my best to be at dinner every night, and i rarely helped pick out the food, or helped cook, because there were so many people that wanted that job. It was a house full of different age ranges, the Mom, Dad, 2 foreign exchange students, their 20 year old son, 17 year old daughter, and their oldest 21 year old son who i was friends with, just so happened to not be living at home at this time period, long story, but he stopped by every once in a while. So anyways, most of these girls seemed to enjoy the cooking process and always did that together. They all had fun, taking portions, slicing things up, helping follow directions. They enjoyed it, and i didn't feel comfortable hanging out with them every night, although i stuck around to talk occassionally. They did the cooking
- I usually stuck around afterwards to clean dishes, which is fine. Tried to do it quite a bit, other times i was busy and went straight back to my room and did my own thing. Back to the specific foods that were prepared. It all tasted good yes, but there was too much carbs or oils for me, so i just got one small portion usually, ate, sat around and waited and talked, and tried to never be the first one to get out of my chair. I stuck around, but i'm surrounded by food, im looking at it, still hungry, and my plan is to go down stairs and eat the things i feel "comfortable" eating, rather than just filling up on the food at the table. I had a belief that no matter how much i ate for dinner, i was always going to eat my "required" foods downstairs that were my "safe" foods. I did that every night, trying to just eat my own stuff.
- They often asked me "why i wasn't eating more", and i'd have to bullshit excuse my way through it. Some nights the food was more acceptable to me than other nights. Sometimes i didn't want a single bite of it, but i still took a small portion. The reason for my avoidance was never because of the flavor though. It was literally all in my head, that this food doesn't "fit" my macros, or I'm already over my calories for the day, and i just cant do it.
- I also had this problem where if i was hungry, i could fight through that, but as soon as i got a taste of food when i was in my stable hungry mindset, my mind went ravenous. I would get a little taste of something good and crave food bad!! I would never be able to settle down my appetite no matter how fulfilling the food was, and i didn't want to eat all their food, because they just made enough for an extra 2 plates of leftovers for some lunches the next day.
- In this stage of my life, controlling my appetite was not an option. Thats truly what it felt like. I did not know how to stop eating when i got full, because the satiety signal seemed to be gone. I literally ate until i was miserable on any food i ate. There was no preventing it, so my only rational solution was to only eat low calorie "safe" foods that i had downstairs where my food was. So that if i did overeat, it was hard to digest, non fattening foods that would not make me gain weight.
- The reason i was able to have food downstairs is, "my lucky set up" i had a whole kitchenette that was considered mine. The stove, fridge, and all the cabinets downstairs were pretty much mine while i lives there. Completely finished basement, room to

myself, and an additional living room down there with the only TV in the house. So the family always came down there in the evening to play with the dogs (that they train and take to shows, and during the winter they played fetch with them in the house). We all had our own little spot in the living room, and the Dad also had his office downstairs since he worked at home. He wanted his office tucked away in the house because he was often on a zoom call for work. While his original location of the office was on the main level right next to the front door. Well if the mailman came, or anyone dropped something off, or just came home during the day. The dogs were a little obnoxious with their barking and that is clearly a little disruptive for work. Sooo he's down stairs, they all come down stairs frequently, thats what families do, there is no problem, except... for my problem.

- So id had that whole kitchenette and after dinner im going in and out from my room, to the living room to the kitchen, on my computer doing work in one place, talking to the family as they are sitting there, and constantly making more and more food throughout the night after dinner, or going into my fridge pulling out ready made food i had prepared earlier, or making more coffee every 30 minutes, and everything i did is very audible, and although i'm trying the absolute best i can to be silent, make sly movements, close doors quietly, if you are nearby, you just about have to know someone is up and moving around. Just so happens the only person it could be, is me, doing this every single night! -

- Yet, nobody ever really says anything, we all minded our own business, -

- Maybe that seemed like no big deal, does snacking all the time really give away my problem, probably not. Who cares if i was eating all throughout the night. Especially if it was just my food downstairs that i paid for, they dont know what i bought or what i had. Maybe i was constantly getting up for gum or just opening the fridge door to get one bite at a time. Maybe they thought i had a fast metabolism, and could eat that much. Well, i actually dont. Im not naturally skinny at all, but they didnt know me before i was skinny. Maybe if thats all they knew me as, thats all they could assume. Little did many people know how difficult it was for me to stay that skinny, but because i had been struggling through this for the past year now, and i built this reputation, i thought i had to stay this way for the rest of my life. I thought skinny was a part of my identity now. At least thats what i wanted it to be. Coming from being overweight growing up, and always receiving comments on my weight. I was fairly proud of the way i looked, and I knew difficult it was to maintain this "look". I knew all the work that went into it, and all of a sudden im getting compliments and positive attention in the gym and around campus.

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- im snacking, making coffee because i abused it, and drank it all day everyday as an appetite suppressant. I think I was having 10-15 tall cups a day. The biggest problem was the detrusor muscle around the bladder was too weak to completely empty my bladder so i never got to start from a clean slate after i went to the bathroom. Im assuming at least, based on the way i felt and how often i had to pee, that seemed to be the case, but i cant prove it to be true.

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- Now you are probably wondering how i could do that right before bed. Well, it was no problem sleeping at all, i was so tired by the end of the day, and the there is a unique

concept of how the caffeine attaches to receptors in the brain and how it wears off, that it just worked out. A problem with drinking that much coffee is its a diuretic. So i had to pee all day everyday, and throughout the night. Like every single hour. I had to of gone pee 15+ times a day, and 5-6 times a night, waking up just to go to the bathroom and then right back to bed.

- So every morning when my alarm went off, i had my routine, stretch, drink water, vitamins, weigh myself, i wanted to make sure i flexed in the mirror to increase my confidence. Id pick up a few weights and do a 5 minute full body workout, including curls shoulder raises, squats, and maybe some abs. Then id go out of the room, get my ice water prepped, and start prepping my meals for the day, and then i had like 5-6 things each 200 calories a piece-ish, and i wanted to eat them one at a time between, one between each class, and scatter my food throughout the day. My backpack would have a small bowl of oatmeal, one premier protein bar, a string cheese stick that they had upstairs in that fridge, a peanut butter sandwich with no jelly, or other topping, just plain, an apple, and maybe an occasional extra item. I thought i was set, i would get to school, and somedays my plan worked perfectly, i spaced it out, I never let my body get full, and i always had food. Other days id be driving to school, and eat all of it in the car ride. Other days i would get through my first class, and start walking to my next one, and eat it all then. It wasn't working, i knew it wasn't working, and it was a horrible idea, but i kept doing it, and i just want to say i dont recommend it. The body does not like when you give it food a little at a time. It wants to feel full and content. The body wants to eat once, relax, and get back to satisfaction. The body wants you to just eat, be content, and focus on other things in life. DONT let food take over your life, long story short, that sums it all up.
- I dont know what the method was behind any of my madness, but i was unintentionally experimenting with my body, trying to figure out what works for me. I was just going through the motions, trying to get through the day. I had all these affirmations that circled around the idea that "all I need to do is get through today, tomorrow will come, and in a year from now, things will be different and all better."
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- At this point, my body is going down hill, my metabolism is slowed way down, and i'm always cold, but i had a heated blanket, and a comfortable bed, so that put me right to sleep!
- Funny thing is, im not the only one that really liked "my" heated blanket. So the friend i met at UMKC, had transferred to Mizzou, and was living two hours away. So that was a big contributing factor for me to be able to live in the house at all, because he moved out. Well, every once in a while, he came back to his parents house, and i went back to my parents house in STL. While he was back home, he didn't want to sleep on the couch every time, so if he got the opportunity to sleep in my bed, he did. Now depending on the person, this is either a preference or personality difference where that might be frustrating, annoying, or not a big deal at all. Now the fact of using my bed isn't a problem. However, if you have ever used a heated blanket, you know that if you crank it up too high. It makes you sweat. Well, im not even okay with me sweating in bed, because i want it to be clean, so how am i supposed to feel comfortable with someone else using it. Just kind of a hygiene thing for me. Super nice guy, just some things were a

little off. Like in my kitchen, he used to like rummaging through the cabinets of my odd food choices and ingredients scattered and ask questions, take diet sodas, and small little candies, like i always kept mints or caramel candies. The money wasn't a big deal, but with my eating disorder, i was just uncomfortable. With a lot of what was going on in the house and how much i was trying to hide at the same time.

- Me and this friend mark, hung out quite a bit when he did come back home. I was always interested in getting out of the house if i could tag along, visit somewhere new, or try new things, and we got along great.
- There was just a couple of times i was sure he was like there might be a problem, like one time we went to the lake to go tubing, water skiing with his uncle, and i don't remember how the subject came up, but i don't think i was eating the food they brought, and as i was explaining, i mentioned that i get hungry and i've had like a 10,000 calorie binge before, and he was like hopefully not with my mom's food. My immediate reaction is like it just happened at my parents house once, but that calorie number may seem crazy, but it's the reality of the disorder. I've never actually tracked it, but i imagine it is very realistic, especially on junk food binges.
- I'm just trying to share some stories of the realism of what you can expect and learn from what is going on in someone's head and what they go through. I know a lot of this is not connected.
- Another time i was hanging out with mark as he was taking me around, i went to go workout with him at the campus rec center. We both work out, but never have together, well i'm down to sub 5% body fat at this point, and it's impressive, and i liked to show it off. That's one of the reasons i was addicted, i liked the way i looked, i didn't want to give that up and gain any fat. Well, we are working out, and the memory i remember the best is i'm set up doing preacher curls, and you can see every fiber of the bicep. You can see the definition and the separation. It's almost alien-like. He was impressed making comments in a busy gym. I'm getting attention that i've always wanted, and whether it was good or bad, i assumed it was good. There is no way of knowing how educated and informed other people are, but i got glances, and i liked seeing it myself.
- When i was back at home, i usually wore my shirt around the family, just kind of out of respect. There was only a few instances, maybe once a week they'd get a chance first thing in the morning or late at night when i was getting ready for bed, where i might go and get something in the upstairs kitchen and have to walk past people, or get into a conversation. However, it's almost selfish and demoralizing to others. In my eyes at least. If someone is purposely always walking around with their shirt off, because they know it looks impressive. It's almost cocky and arrogant, because you know while you are doing that, nobody else is that lean, and you know they never will be, and that same statement has to be going through both of our heads. So that scenario of seeing how lean i was and connecting a lot of the past facts they learned and witnessed, and the mom working in a nutrition field working with infants and talking to parents, she was educated for sure. I just never had a real conversation with them about it.
- I have a feeling the mom noticed that health problem because for christmas, she got me a small can of variety nuts "like the heart healthy stuff, you know!" I didn't eat them for the longest time, because i knew nuts were full of fats which i believed were high calorie, and i just avoided them. Finally i came around to them, and made them a part of the

daily routine and just had like 5 a day, and one day im half way through the jar, and have a binge and finished them off.

- I had all these things just coming up, around every corner, there was no escape. I'm assuming my relationship was just good enough with the family because i was a very nice genuine person that started conversations, that they didn't feel the need to call me out on my problems and try to force me to change.
- The whole family knew i had a problem. They saw it with the coffee, especially since the coffee maker was loud, and it was a single serving device, so you knew that "Tony is making coffee again...". Now with me going in and out of the kitchen. I dont know if they ever thought i was meal prepping for the next day, or just snacking, i always thought the latter.
- There was one time i had prepped a bunch of chicken, oatmeal, and had it sitting out on my counter just on a plate letting it cool off before i took it off the ceramic plate to put it in a plastic container. Well, as it was sitting out, i was in a different room doing homework possibly, or scrolling through my phone, and i had heard the dogs rustling around in the other room. They did that often and i knew something was up, but they acted like that often, wresting and growling, but this time it was in my kitchen. So, i dont remember if i got up right away, or got up later to check the food, but when i walked in the bowl of oatmeal was on the ground empty, and my plate of chicken was salvaged too off of the floor. The dogs ate it all! Like okayyy wow. You dogs are selfish! I think they were just standing there watching me when i walked into the kitchenette, just staring at me. Like, "hey that was good! Make us more!"
- No big deal, but i think that the friendship between me and the dogs was not as good after that. Lost a little bit of respect for them. Sometimes they would walk around the corner and peak at me while i was in my room, but they never seemed to walk in. I dont know what the deal was, maybe they were scared of me, i dont know, i refused to hit them because they weren't my dogs, but they gave me permission to because the dogs would jump up on you standing on their back legs and the family did not allow that. Sometimes id wave my hands around or try to dodge their jumps, but never really yelled at the dogs or made contact. hey would hang out around me when i was in the kitchen and almost beg for food, sometimes they'd be standing at my bedroom door when i woke up in the morning, but they would never walk into the bedroom. I have no idea why they thought it was off limits.
- Well the night always played out, 10-11 o'clock, everyone starts going to bed, and depending on the night i did too.
 - So of the nights i went to bed early, everything was fine, i just had to go to bed hungry, with an empty stomach, and wake up the next morning and figure things out. However, I hated, absolutely hated going to bed hungry. So my goal was to just eat enough where i could be comfortable, thats it. I just wanted to eat enough to feel satiated, go brush my teeth and get into bed. My shower was already done by this part of the night, i usually

had my workout done by 6 o'clock at this stage in my life, came home, took a shower, and went throughout my night. So I wasn't stressed about that. What I was worried about is getting enough motivation to walk into the bathroom and grab the tooth brush, and as soon as i did that I would be fine. I would know that means i need to go to bed, and i cant eat anymore. Yet, i couldn't do it, i just wanted one more bite, then another, and another, and i could never just stop and grab my tooth brush. I enjoyed eating too much and when i got to my ravenous mind state, i could not give it up. Sometimes it was fine and I was able to convince myself to just go to bed, other times I knew I had eaten too much already, and I had a goal. I knew my night was messed up, and i was just eating until they went to bed so then I could go do my deed.

- There were so many triggers that caused me to think this way, i cant even write them all down
- One was that I used to have to make sure i took a leak before i ate because if my bladder was full when i sat down to eat, and i finished my plate, my satiety signal would not be pure. I would be more prone to having an episode and that was one of my triggers i had to watch out for
 - ranging from i ate a couple of granola bars and it turned into a bunch, or i had a dessert, and i felt guilty so i had to get rid of it. Really end of story, i had something i felt guilty about, and i had to go get rid of it, but if i was going to do that, i was going to enjoy more food while i was at it. A few examples... they had cookie cake upstairs, and i thought i could have one bite, turned into a whole row. Or i gave up and just started slamming down PBJ sandwiches.

Another was just other deserts hidden throughout the house.

- I think I was being quiet and sneaky, nobody ever saw me in the middle of the night, nobody ever got up to check on me, or even bring up the fact during the day time. Except for the cookie cake, they did bring that one up, asked the question in front of everyone and we all just looked around, and nobody said a word. Another time the peanut butter was lower than expected, they just asked, and everyone looked around, nobody said anything.
- Actually the biggest time i got called out, was over some steaks. So i thought and was told the fridge was free range, unless it had a sticky note on it. A lot of things did, and i did not touch them. Well, one day there were like 4-5 big 1" thick steaks in the fridge, pre cooked, just sitting there. I didn't know what they were for, i expected they were for that nights dinner, so i waited a whole day. Didn't touch them, then the next day, i took one for lunch, took one for dinner that night when i got home. Then the next day, i did the same thing, i took one for breakfast and one for lunch. So i took 4. Like yeah i knew the problem, but it was so good and i didn't think it through. Well i got a text that night. Im at the gym, and comes through in our family group chat, something about "i cant believe you ate all the steak, that was \$70 worth of steak for our family dinner tonight, we were going to dice it up and put it in our dish, sorry girls i guess find your own things for dinner". Im like damnnnnn it. Okay so i send a message back apologizing and i was like "what can i do to make it up" and she said "nothing, its over, its done". I left the gym right away and only had one option. I needed to go buy dinner, and i had one place in mind. We had a unique pizzeria, called "Pizza 51" on 51st street. I got the 26" pizza and brought it home, and texted them im on my way, they were all surprised and excited to see a pizza that big. I didn't make up for the steak but i did try. I did not eat a single bite

of that pizza, its so greasy and ive had it before, back when i wasn't super health conscious. So just to describe, when you pick up a square cut slice, it literally drips oil all over the place, all over your hands, everywhere, so i know better, but they enjoyed it.

- You can start to see i was messing up a lot, and a lot of mistakes were starting to pop up on my part. However, even after all the food going missing, and the blame going to "me". I still dont know if they knew what the real problem was.
- So I wanted to get into the real give away. So just to reconnect what i was saying about waiting for everyone to go to bed while i kept eating, i was explaining how i felt guilty after eating specific foods and i needed to go get rid of it, usually waiting until i was miserable. Well id have to go run away in the middle of the night. I was explaining earlier that back when i was living with my parents, sometimes I had an eating episode in the middle of the night. Well, that happened here too. Anytime of the day, may have been 8am while i was getting ready for school, i felt like i needed to skip class because I needed to run off, going to "my spot" where I felt hidden. Being gone for however long it took, other times in the middle of the day, maybe middle of the night. Then like i said, all year long, no matter if there was snow on the ground, freezing temperatures. If i had to go, I had to go.
- Now sure i was able to go on a run, so what, no big deal, they never directly watched me at least from what i know. I ran my own schedule, nobody really knew when my classes were, or if classes were canceled, and i often went on a 3 mile run, or 6 mile walk, so how could someone possibly know what i was leaving the house for? The problem was if i ran off, in the middle of the night, i had to clearly open a door out of the house, to go outside, usually out of the walk out basement. Well, they put a security thing on all the doors so it signaled, and had a unique chime noise that ringed through the whole house that someone opened a door and either left or came in, sometimes the dogs would come running down stairs to greet me at the door when i came back in from my episode of running off, but nobody ever met me at that door.
- They had to of know though, like hmmm why would someone be doing this every so often what options do you have. Depends on how well they connected the dots. Maybe i was hanging out with friends in the middle of the night, but i doubt they thought of anything but the truth. Im really just glad they didnt say anything.
- Its good thing. Thats the last thing you want to experience when you are going through that. Its scary, walking back to the house with shame with the fear of visiting someone who is going to be extremely disappointed and you have no idea what they could possibly say, but you know its not going to help, you have this feeling that there is nothing good that could possibly come from it. Just that fear of talking to someone is a threat and if anyone ever said anything to me as i walk through that door, i would just break down from disappointment in myself.
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- So what could they have done is something I guess I could go into, and i've thought about it a little, but i never had a good idea. Right now is the only time I have actually written any ideas down. Something i needed was for all the processed carbs and sweets to be out of the house. I always knew in the back of my head that the only way i could

possibly enjoy those things is if i had a binge, and knew i could resort to an episode, but if it was all gone, i would only have satiety filling, healthy foods around the house. Processed foods are just too addicting, and flavorful, that its overpowering, it has a strong sensation on the tongue, and a strong dopamine release, why wouldn't we want that. So i knew where those foods always were, and i knew how to get a hold of them. First thing would be to get rid of them. Another thing is if you did know something, you can't talk to someone face to face about it, and you cant approach them after they come back, thats what my mom did one time, she chased me down the driveway and saw me in the act. It messes uo a relationship with them, it ruins trust a little bit and if you have a problem is makes you think of ways to be more sneaky. My mom walking up on me seeing me in the act is a negative memory i have deep in my mind associated with that person. Its a psychological downer chemical that we use have unintentionally correlated to them.

- So if you know what they are doing, the only thing you can do is act ignorant, saying something like "i know something is wrong, im not accusing you of anything, and i forgive everything you have done up until this point. Just please come up with some ways that l/we can help, and leave us a note. I know its going to be hard to say to our face, but we want to know what we can do to help." Something like that, but in that time, i dont know if i wanted to hear someone say "we care about you, tell me whats wrong", because there was no way i was telling anyone.
- Another thing you could do is share a personal experience of a hardship you went through, find a way to bring it up into a conversation, and dont just walk up to them and say "heres a story of how i struggled". Just bond with someone through something that you struggled with because it creates a bond. It brings people closer together when they get to hear secrets about you that you have never shared before. Now while you are sharing that story, also share what you did to get over it, or what helped you, and give them ideas.
- Now while i was running thoughts through my head, i was like what if someone left a sticky note out saying something referring to the topic, like "i know what you're doing, talk to me about what we can do to help". Well, i don't like the idea of that, it makes me nervous, scared, cringe, and i would not have liked receiving that. If im working hard to hide something, i dont want to talk about it for a reason.
- I just need someone i trust fully, i need someone anonymous to talk to so there are no repercussions if something bad happens. I just dont want someone i care about to talk to me about it, im afraid of what will happen afterwards, or if they will hold that against me, or give me a stigma i dont deserve. I dont want to be thought of negatively by people who care about me.
- Now there are options like that, but i needed to know it was anonymous, my dad came up with a list of people to approach, he called the school and asked fro resources, and i finally did stop into a counselor at my college, and it was during "walk in hours", i did so unannounced, and i just wanted to go in without saying my name, who i was affiliated with, i wanted to do nothing but talk and have a random person listen.
- The problem is, thats not how the system works. I walked into this lobby, gave a general description of what i would like to do, and they would not let me go in until i gave them my name, student number, address, basic credentials. I wanted to just leave so bad, but

i was like whatever screw it, the lady said that they dont give out the name, its just for protection in case something happens, so i filled it out went in, and i talked to this "therapist". I opened up to her fairly quickly, started crying, and then she started to ask the most generic questions like she was going through a list, and it had no context to what i had just told her, like wtf, why cant you treat me like an individual case, and why are you acting like a bot, i was getting pissed, sobered up real quick, and was answering her questions respectfully, but with a tone, that made the question sound stupid, fairly quickly, she's like "we have a specialist in what you are dealing with, and she just happens to be free, do you want me to get her", like yes please, thats who i came here to see in the first place anyways. So now they are both sitting in the room, i have to retell the story to both of them, and she talked and i have no memory of what the hell she said, but I recall I came out with a better reputation for her than the first lady. So a little background on the specialist, she had held a small group seminar on campus about a week prior and she said she recognized seeing me before, they had given out free food at that seminar to entice people to come, and she was very informed, but thats how i knew she existed in the first place.

- After that event was over, I guess you could say I was in a better mood, and trying to make progress to a "recovery". However, guess what, all the information i thought was "confidential" wasn't, i got an email from them saying whatever, here's a bunch of resources we recommend you reach out to, a bunch of other stuff, signifying that the data was used for statistics, the conversation was documented and associated with my name, like are you kidding me! It was no big deal and it wasn't going to be pursued or pushed any further unless I initiated it, which i didn't, but this is just an example that initiating opportunities for someone to make moves towards recovery themselves is beneficial. Saying that you care, compared to actually going out of your way to find information to prove that you care are completely different. Words only go so far.
- By this time, i was keeping an app updated on my phone since the last incident, sometimes it was every other day, getting better, and then only once a week, and then id get lucky and make it a whole month. Really seemed to be once a week for a while though.
- Over time it got better as i completely deleted the calorie counting app. Completely ignoring how much food i had eaten. Forgetting throughout the day of all the food i had already consumed. Loosening up slightly on what foods are "safe" and what are not. Solidifying my ideas on what is healthy and what is not. Locking in my beliefs on what i know to be true. Staying off of social media, and stop comparing myself to people who are progressed further than i am. Being completely in tune with my satiety signals, and only eating based on the way i feel and what i crave and what sounds good rather than forcing myself to only eat foods i thought were healthy. Cutting out all coffee, and artificially flavored carbonated sodas, and cutting out all processed carbs. A couple of times i overate slightly and i had to change my mindset to understand that this does not mean my day is ruined. I just need to stop now, and all is good. As long as all the food is healthy and their in no junk, the body will know how to handle it.
- I also had to have my specific go to foods when i was hungry i could eat a lot of, and that happened to be protein powder, eggs, and oatmeal, those were my go-to, if after a meal i

was still really hungry i let myself have as much as i wanted. Now it didn't work perfectly, i gained quite a bit of weight, but it allowed me to get passed the addiction. I had to give up on being skinny, and sacrifice a little bit of time in confidence after gaining weight, but i was able to get it back off and get back to a stable weight, where im happy to stay at. Now im a year past it. You learn that life moves on, we keep going, we all make mistakes, but you dont have to feel guilty about it. So what you messed up, youre the only one that knows you did. Its not that big of a deal, get back on track, and get over it. Forget about the mistake and dont let it weigh you down, life is too short to let negativity overwhelm you, so just be happy as much as you can and let confidence take over, because as long as you are fun to be around, people wont care how you look. Being an enjoyable person to spend time with means always staying positive, never commenting anything negative, and never bringing up anything negative about yourself. The truth is, that if words are coming out of your mouth, they better be positive, otherwise people do not want to hear it.

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- As summer was finishing up, going back to school
- These were my living situations
- Still messing up

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- Still had weird eating habits.
- Raw beans set me back
- At this point i had been writing down my thoughts for a while, and i had 2 books i was working on, this would technically be my 3rd. One was on nutrition, and i spent time learning what different foods do in the body. I was writing all this down for myself originally because i needed something to refer back to when i had an episode to get me back in the right mindset. I started to look at some of my physical problems i was seeing in the body. Systems were shutting down so i just wanted to know what healthy means because my main goal was to figure out this "why is it not just simply calories in vs calories out". I searched and i dug deep, i wrote down all my questions and then later went back and answered them, i got an extremely broad understanding of everything nutrition, finding out the consequences of what happens when we follow this diet, and identifying what is missing. Understanding how there are so many connected systems in the body, and using my degree in chemistry to actually know the right questions to ask. I

found out what is important and i did that for myself. I got up to 50 pages and was like wow this is useful, im going to continue, and this is my purpose, this is my passion project.

- Then my other book is on psychology and i wrote down my affirmation and found what the deeper meaning behind the quote was. I dug deep in my thoughts to understand what my insecurities were, and i found the underlying reason they were there. Paying close attention to all my regrets in life, identifying what happened, what i wish was different and giving myself a blueprint to look back on anytime i need a "pick me up". I reread it to give myself more confidence, reconnect with myself because i wrote it, think deeply and how to be introspective. I came up with formulas, advice and encouraging words to help me feel more comfortable approaching strangers. I go deep into what i believe the purpose of life may be, and how to treat others respectfully. I also use it to help me get back to a productive and motivated mindset, and i think it would help others too
- The reason i explained that was to not only promote myself, but also to explain i needed these personal projects to help get me out of my struggle. I needed a new addiction to replace the other, and i think that is extremely important to have something you can fixate your mind on. If you really start thinking about it, im sure you can find some things that you are addicted to right now also, whether it be TV, reading, working out, running, drinking, smoking, etc. Clearly some habits are more dangerous and harmful than others, but they are all hard to escape. I feel like its really just about finding healthy habits, and spending your time getting addicted to things you are proud of, like some people may be addicted to work, or spending time with their significant other or kids. I think those are good, and allow you to become a better version of yourself mindfully and set yourself up for a better future.
- Some of the things I want to improve and grow are confidence in my self-image. I want to be so positive minded that I'm more fun to be around. I want everyone im around to enjoy my company because im a positive source of energy. Another goal is to become more educated and informed on the world around me. I feel like i have a neutral opinion on a lot of things and i feel like i could actually have something to say if i was more informed on the subjects that other people talk about. Overall i really just want to get better at talking to people. I just want to have the confidence to be able to walk up to anyone and learn about what they know. I want to find a way to get past the small talk and get into the deep thoughts that people really care about. I think there are a couple things that hold me back and i want to fix those. I feel so clueless on what i need to fix, yet there is clearly something im unaware of. Theres a laundry list of things im already doing and a few things id like to start. Ex. Reading a few pages of a book every morning, working out, running, going on walks, listening to podcasts, audiobooks, stay in touch with more friends, delete social media apps, pray, practice mindfulness, more food diversity in my meals, write down and reread my goals, learn a new skill, volunteer, explore new places, sleep more, journal more, draw creatively, random acts of kindness, celebrate more often, add more humor, and starting every morning with a routine, so you know everyday has a guaranteed good start to the day. Now, what does all this do, i think it allows for deep reflection, and gives us a chance to fulfill the basic human desires of being able to contribute, being appreciated and desired by others, knowing yourself, and appreciating everything around you.

- Now i dont know what its like to be addicted to a drug, and have a chemical dependence on a external drug, but my addiction was around food. And there was no option to just cut it out, and go cold turkey. We need food, so its difficult, i dont know how to compare it to other addictions is all im saying, but i think some of the same problems apply, on feeling the need to get your dopamine release from a specific substance. I was addicted to the food itself, the flavor, and the action of putting food up to my mouth and eating. There was a time i learned i could try just chewing the food and spitting it out right before i swallowed, and sure seems like a good idea until you realize it doesn't make you as happy, swallowing the food is enjoyable, and its an important part of the dopamine release when eating.

- The truth is, now looking back at it, i may have accomplished nothing special if i had not gone through this hardship. Sure it took a lot of useless effort, but looking back i dont think i missed too much. I could have spent that time reading, progressing in my career, trying to be more confident, but i wasn't confident in the first place. I know i would not be the same right now, and i would probably still be shy. Now im not recommending it, but i am saying "dont be afraid of hardships", there is so much growth and learning experienced during that phase of my life. Its like accelerated learning and growth that i would have not gotten from any online or college course. I have truly grown as a person, and have skills I would not have without going through it.

- Some things I'm appreciative of are being confident and brave enough to walk into any business or any man in a suit and try to start a conversation and learn from him. Im appreciative that i was able to write two books with the knowledge i learned. I am grateful for the relationships i have built since then and how my story allows me to seem "human" and open up, and become closer to others because they see that it is a meaningful story, and they know that trust is built. Im grateful that im healthier than ever, and understand what it means to be healthy. I can now hopefully live a better quality of life, and hopefully extend my lifespan for years. I also have a more positive outlook on life, and have a true understanding of what my purpose and goals are - Some things im still not good at are

- This hardship was beneficial because i learned how to push myself though physically hard tasks. I learned how to push my mind to its limits when times get tough. I know how my body reacts to certain foods. I now know my satiety signals better than ever, and i know how to manage my hunger and prepare myself for a day without food, and i know how to control my stress and anger when my mind turns that way. Life is a lot better now than it could have been. Sure i was set back in a few areas, but in my eyes, i have excelled far beyond what i was capable of before experiencing that struggle -

Everything will work itself out just keep yourself busy and all your goals will be achieved in six months

The money is not a problem the money will come when you need it the time is not a problem just settle in idle

The work and the tasks are not that hard just find your motivation and find your energy levels

Look for the good in every situation tries to learn something from every conversation

Stop shiny objects syndrome and thinking about what you want to get done and actually be productive and do it

Read this when you feel yourself being unproductive

Wake up three hours before your obligation stretch make a protein shake two scoops drink a glass of water supply and proteins shakes go for your run come back to the house and take a shower and brush teeth and head to school now or early and get a free parking spot and walk to class and have a productive day

Would you rather have no responsibilities in the mindset that nothing matters or have the mindset that everything matters and have all the responsibility behind all your actions

We are all constantly doing our own research on things we care about or have problems with or are actually interested in so ask people what they like to do look up in their free time on phone

My problems

I used to be hungry all the time and all I can do is think about food

I used to be so stressed about losing weight that all I could think about was food

Are used to be so stressed about not having a good strong relationship with one person that I try to make myself better by losing weight

I used to have no motivation because I had no energy because I deprive myself of everything I need for a desire that is hard to obtain

Paper acknowledgements

- treat me with respect and you will get respect back
- If you ever have a question write it down or ask me and I'll help you figure it out
- Your parents are here to be your best friend, tell them everything
- If you have a problem come up with a solution otherwise you are just complaining
- Doing more than what people expect from you will make others admire you • No cursing
- Positive reinforcement always works better than punishment
- Giving a complement is the fastest way to make a friend
- A true friend will never put you down, they will always look past your negatives and try to help you grow
- Everyone has an opinion, people love giving advice

- Positive affirmations to yourself make it easier to avoid procrastination
- Stretch, exercise, and drink water every morning
- Let people talk about themselves
- Hype up the people around you
- Find your niche and be the 1%
- Strongest/shredded/smarter/athletic
- Take every situation slowly and think about the possible results
- Think about the life lesson you are supposed to learn
- Think about how to improve everything around you
- What is a problem you are experiencing rn
- Expand your mindset
- Always do more research
- Learn a hobby and master it
- Think about what you could have instead
- Only do things that truly make you happy
- Invest in it if it is truly worth your while
- always keep yourself accountable if you said you will do something
- Give yourself choices

Wow, how did i eat that much

You would go grocery shopping, come home and put it away and start meal prepping and realize you are hungry now and you start eating it, like a lot of it, like why cant i stop eating it. I know i need to save it for tomorrow
I dont want to waste food, and throw it away, so ill keep eating i guess, only to realize that im miserable now and purging it up later

I felt horrible after

How to help them, what to say, what to offer

Get all process carbs out of the house, because they are a trigger food

Getting to know your trigger food,

Realizing that you just need to know what your boundaries are and where are you draw the line on food, and if you think something is cheating on your strict diet, but you're really craving it hard, just let your body have it, and MoveOn after you get a taste, don't try and fill yourself up when all you want to do is eat one thing, just go eat the one thing, it's not that big a deal,'

Random lists of tasks i need to do everyday to be structured so i dont get any surprises and

i know what to expect

The day had to be structured

Meals in day

Apple first thing to eat everyday for breakfast

Drink plain ice water

Use flavored drinks as a treat

Make and prep a meal and don't eat anything afterwards

Eat only satisfying foods

You don't have to get a lot of protein just try to

No snacking

Dont let yourself get full

Eat only to satisfied

Look for the benefit in what your choices are

Snack on fruit not vegetables

All meals are full and diverse

Writing down eating tips and reminders for the day

Writing down things i want people to think about me

-
- Bachelors / MBA

A true friend will never put you down, they will always look past your negatives and try yo help you grow

Giving a complement is the fastest way to make a friend

if you have a problem come up with a solution otherwise you are just complaining The work

and the tasks are not that hard just find your motivation and find your energy levels a foolish

man devours everything he has

you become who you hang around with

know the whole plan before you start so you dont have to stop half way

think about how quickly the day is going by even if it isnt - be happy

are you happy with the direction your life is headed

How can you become the person you want people to see you as

Write down your thoughts and how you can improve

Determine massive lifelong goals and break it down into simpler goals that you can work towards faster and help you get there building from the ground up

Listen to and write down your own advice

What can I give up to exchange time to get closer to my goal

What is stopping me from achieving my goal right now

- time
- grades
- connections
- experiences

Don't care about physical possessions just that they are mentally capable of carrying
always see the good in every situation and let life just flow bc we cant change much

People love giving advice, just simply ask for their advice and follow with a question based on the subject you want to get advice about

there is a past you that is proud of how far youve come

think. about the lesson you are supposed to learn from this

Everything will work itself out just keep yourself busy and all your goals will be achieved in six months

The money is not a problem the money will come when you need it the time is not a problem just settle in idle

Look for the good in every situation tries to learn something from every conversation

Take charge of your own actions and don't blame others and be responsible for yourself

Increase your tolerance by forcing yourself into awkward situations

What are a couple of tasks I need to repeat every single day to reach my goal

exceed expectations and that's how you make yourself useful

people will only remember how you made them feel or what they thought of you

- literally nobody thinks on the same level that i do
- others have no motivation
- they don't have as deep of morals as i do
- they don't even think twice about an action
- nobody else cares what you are thinking about
- you are the only person replaying this scene in your head

drink water

stay off social media

write down important thoughts

stay ahead on homework

eat healthy

make a good first impression

wear matching clothes

Admit you are wrong

Try new experiences

Stay busy

Don't be afraid of failure

Try to change for the better

Nobody is perfect

GO DO IT NOW, DON'T WAIT

Address your weaknesses

Address your Strengths

Control Self doubt

Initiate conversation

winning is an intentional act

im gonna get shit done today

overthinking is pointless

Im not hungry im just bored

never eat something you dont want

only eat when your body is craving not when your mind is

my workout is something i look forward to

ive been fat and ive been shredded

- and id rather be skinny any day

i look better than i ever have before and better than everyone else

others arent even that much stronger

And im still getting better every day

if you never fail, are you even trying
the only thing i need to change is my mindset

i will not be defined by my past

- my past does not determine who i can become

i have been on the verge of my death bed

- i would go to bed and understand that if i didn't wake up i would know the reason why
- ive gotten to the point where i dont even look like im alive

you can think about food all you want as long as you don't eat it

Eat at least once a day

- protein shake
- oatmeal

- plain water
- flavored water
- carbonated diet soda
- high carb dessert
- fat source

optional

- meat
- eggs
- cheese
- yogurt
- cottage cheese
- veggies
- coffee

things to do every day

- take pills
- bowl of oatmeal
- protein shake
- stretch
- run
- use teeth whitener
- shower
- read 2 pages
- weigh yourself
- squat sit
- check weather
- tell google good morning
- burpees
- read affirmations
- deep breathing
- no eating for first 30 minutes
- flex show
- make your bed
- drink glass of water

things not to do

- dont hit snooze
- dont check phone
- do not drink coffee right away
- do not eat until you are full

optional time killer

- read spanish book
- read dental assistant book
- do sit ups
- do plank
- do push-ups
- do boxing
- watch youtube
- do pull ups
- watch tv

times to eat at

- 7
- 11
- 3
- 6

breakfast

- oatmeal
- eggs
- yogurt
- toast
- burrito

snack

- protein shake
- apple
- banana
- potato
- cheese
- popcorn

lunch

- Beans
- Chicken
- Hamburger
- Any veggies
- salad
- cottage cheese

dopamine release activity

- Eating
- shopping
- youtube
- netflix
- running
- workout
- stretch
- abs
- food prep
- skateboard
- meditate
- whiten teeth
- make coffee
- self reflection
- shower
- walk
- start a hobby
- do small tasks
- read spanish
- read dental assistant
- invest in your skills
- look at stock prices

Think about food while you eat it, how you are eating, how it tastes, enjoy each bite

Disconnect from feeling of guilt or shame while eating

You can think about food all you want as long as you dont eat it
The words in my head are more filling than the actual food

Actualization

- eat only when your body is craving not when your mind is
- Think through everything and understand the true meaning
- Everything happens for a reason
- Think about simple tasks and how everything in life could have led to this moment
- Personalize your story, make your life interesting

- when is enough enough
- Don't waste anything away
- Just don't punish yourself
- You did good today
- Try to keep the subject on the other person, people like talking about themselves
- I've been fat and shredded and I'd rather be skinny any day
- The pain will go away
- Overthinking is pointless
- Never tell anyone your weaknesses
- People don't actually know how to help
- I am the most knowledgeable for advice
- I just need to think it through
- Don't give away your secrets but write them all down
- We are all constantly doing our own research on things we care about or have problems with or are actually interested in so ask people what they like to do look up in their free time on phone
- My workout is something I look forward to
- Others see me as someone who is extremely fit and healthy
- i love fitness training
- eat to get rid of hunger not to be full
- Take your time to admire the little details and when you are bored look at the small efforts that went into the things around you
- We all are privileged, find your advantages over others
- Don't ignore things that don't affect you personally, think about how everything affects others
- there is no reason to try and persuade someone to like you
- Don't put things off to later, do it now
- Staying up late isn't worth it
- Get your day started early

small tasks lead to big actions

- My positive attitude will bring me success
- Try something new today
- That wasn't as bad as I thought •
- They are no different than I am • I
- don't care what other people think • I
- wake up motivated

Overthinking when to eat
Don't rely on motivation

Protein is not everything, and processed foods are not the only problem. Some of us count calories, and to me, that's a problem. I'm thinking of a strict diet.

I tried counting calories using tracking apps, but I did not like my results. I think that if i would have used tracking apps to count RDA nutrients instead, i might have gotten better results than i was looking for.

Im neither case is it okay to fixate on your goal. Its not even a guide. Its an accountability of, if you have to use it to encourage healthy eating, then this is a wise more reliable datapoint if your goal is to be healthy.

If all you want to do is lose weight, of course tracking the numbers will be fastest, but don't expect to win any arguments, it's not recommended.

The third option I see is to limit proportion size, but this also causes a

From what ive learned and read, it doesn't appear that there is enough available calories in the day, not to eat various health foods.

I don't count calories anymore because it brough havoc into my life. It wasnt sustainable. Thats all i can say. i would have much rather went through life not knowing what calories were.

I believed that there was status in losing weight. Now i look around and the world is full of thin people. Even if you're overweight that doesnt even stand out unless thats what im looking for.

staying thin when your body is trying to grow is too difficult to keep up with. Let those thoughts come, but don't commit to them, its an

I liked the story i was telling myself

once i was deep in the midst, i told myself, that "If you start today, you'll stop worrying and you'll just be happy that you're doing it". It's time to get better.

At least i was in control.

Just a little bit is not a problem. One bad meal choice, and one bad meal of the day does not mean that you blew the whole day.

It's never okay to give up on your healthy choices. You can reset now, and pretend like it never happened, it's over.

Moving on is the hardest part

Finding that balance of “okay, now stop, its okay to think about it, but you have to move on”

self-image
confidence,

push yourself into a hole. Cover yourself up, and say “my willpower is stuck down there, i can’t get out”

“So what! Its just one day of feeling hungry, you'll be fine tomorrow”.

I believed in emotional triggers so much that i connected my story to believe that one small snack led to a tipping point that turned me to bingeing.

I “triggered myself”

I resisted food all day

Of course i finally hit a tipping point

Excerpt from my writings:

Anytime you have an overeating episode, it will be easier to turn food into fat, since your body is burning less calories in the time frame, so you can’t burn as many calories as nutrients are getting absorbed. The food just has to go to fat, that you worked so hard to lose.

So don’t track the calories in the food you eat. The time it takes is not worth the benefit. Even though counting calories may put you at ease, knowing that you didn’t “eat too much”, distracts you from the natural joys of eating.

the constant calorie analysis leads to an unhealthy obsession

you begin to feel obligated to monitor every bite you take,

after my first meal, I had already told myself that was half of my calories for the day, so how do I make my next meal as low calorie as possible.

This made me think that enjoying food was a source of guilt.

if only I would have had this other food, I wouldn't feel so hungry right now.

I was worried that I ate too much, and was going to gain weight.

All I wanted was to get rid of the feeling of hunger,
but I loved the act of eating.

I believed that if all I ate was 0 calorie foods and drinks, my appetite would go away

Then I could eat whenever I wanted, and never gain weight

if I got lucky, I could suppress my appetite for 2 days,

but as soon as I tried to eat again, I would get ravenous!!! I would feel the need to every food around me = RIGHT NOW!!!

I let my body get really hungry, and these are the moments i made bad decisions with food. These moments made me sad, life sucked. I thought i was truly in a struggle.

As I got closer to indulgence, my hunger would get stronger than ever before, and it felt impossible to hold back my hunger any longer. In that moment I was absolutely starving!!! No longer did my lists matter,

i ignored my restrictions and rules

At this point in time, i had to panic

I didn't really have a great understanding of binge eating behavior.

As I got hungrier. My hunger led to worse decisions. Instead of rem

so I went straight to the bulk snacks I had, cheap, abundant, fast, easy to eat processed carbs.

Not only did they taste good, but they were so rewarding and addicting especially when I was malnourished. They were so accessible, and ready to eat out of the wrapper, but they increased my appetite for more, faster than they suppressed it.

Processed food is deceptive for how good it tastes because it makes us feel good, our mind thinks that it must therefore be beneficial. This physiological pleasure is a false indication that our actions could be leading towards anything beneficial for us in the future.

This level of importance we use to VALUE our options, makes us choose decisions based upon what chance that this will outcome, will result in the lowest chance of regret. Our choices do reflect this SAFE strategy, but a pleasure mindset is only advantageous for a short term situation. Immediate gratification does not involve planning, because it's a recognition that this will only be temporary.

If you want to consider long term advancement, then you have to consider “what is impacted by this decision next”, and “what is this choice going to do for your overall plan?”

It's clear which strategy we value more based upon our acted upon decisions. Your mindset, perspective, and opinions always show up in the involuntary choices that you make. So you have to intentionally train your mind to recognize long term health oriented choices.

This starts by finding a deep passion for a goal that you would do anything for. That internal commitment and dedication you have for achieving this goal are what strengthen self-discipline in your daily habits.

It's a state of believing that there is no time for weakness. There is too much to achieve between now and then, that I simply can't afford to be distracted. I don't want to get set back! Time and energy are just too important for me to spend on something that doesn't help me make progress.

That passion comes from saying that “NOTHING IS GOING TO STOP ME” because I know what I need to do. I don't need an easier way because I know this way works. I've tried the tricks, and used the shortcuts, but now I know they don't work. So I refuse to even consider that there could be another method, because I'd rather stay consistent rather than letting another trick hold me back again.

It's like I'm motivated by the realization that I fucked up, and I'm not going to let it happen again. I know more than just how to avoid it, but I now know how to channel those thoughts as my focus, so I never cheat myself again.

From these lessons learned, I know to give my body what it needs rather than what my mind wants. We all have an intuitive understanding between right and wrong. We were all taught how to eat healthy, but we keep letting freedom of choice, and freewill guide us towards pleasure.

This leads us to a mindset of “I want, I wish, I thought” rather than “I did, I'm doing, I'm done.” Which clearly shows hesitation and uncertainty. Don't ever second guess what you know you're supposed to do. Simple as that, do it right.

Even though the consequences haven't felt horrible yet, we all know that a healthy moral lifestyle is the ultimate goal of personal responsibility. This acceptance of self-restraint justifies respect that you can't get from trying. It's an act of admiration, only given to those who demonstrate leadership qualities like self-control, consistency, adaptive-intelligence, and situational mastery.

Anyone who earns that level of respect, trust, and influence, is NOT going to promote unhealthy techniques. You just don't get that level of respect from teaching people to do the wrong things. Advice is good, but not if they don't practice it themselves.

So DON'T ever let someone tell you to purposely cut calories, count calories, choose only low calorie foods, eliminate carbs/fats, use artificial sweeteners, skip meals, ignore hunger, or plan cheat meals, because none of these are sustainable for a long period of time.

You can be obese and still malnourished.

Being optimally healthy is all about having a sufficient vitamin, mineral, electrolyte, protein, carbohydrate, and fat intake. You can't get them all in one meal, and expect them to all get absorbed and distributed to every cell in the body in the same day. It takes time. It has to happen gradually as these nutrients diffuse through the system. They make it there eventually, but right now, not every cell is properly nourished.

So each cell there is a lacking nutrient, the cell is sending a signal to the greater system, saying "im missing vitamin X, but there is no language correlating to eat X food, until you become more self-aware, and realize "oh, I'm craving salt right now, how about we eat a healthy choice and not just chips". The feeling and craving you get are underlined by a billion smaller systems, asking you to do an action that should evolutionarily result in that problem being solved. However, your behaviors are not just your thoughts, your body is an ecosystem that needs nourishment, and you can't just pretend like your willpower for high energy sweet treats takes priority over the ecosystem that controls your longevity.

The health of every individual contributing cell is going to affect every other part of the system, and like we all know, if you remove or damage one part of the system, (just like taking away the pollinators) you force a chain of events that leads to the collapse of all existing life. You really do have to treat your body this way! Your daily actions determine where you are on the health spectrum. Every small decision you make adds up over time. Life is fragile, and that's why we need a diverse ecosystem.

A wide variety of species with different roles helps maintain balance and adaptability, and we are at a point in evolution that our body has already adapted over time, so we have maintain that, and keep those systems going. Now that unique biochemical pathways and mechanisms are put in place, we have to provide the variety that it grew up with.

Biodiverse ecosystems are less prone to the rapid spread of diseases. A variety of species can act as a buffer, preventing the dominance of a single host species that might be susceptible to specific diseases. That is possible because species within ecosystems carry genetic diversity that is crucial for adaptation, evolution, and the development of new traits. So by providing an abundant ecosystems a variety of food resources, supporting both cellular and microbiome populations. Diversity in these species will contribute to a more robust and reliable food supply for all the others to rely upon.

As a culture, we tend to overlook the small changes in our body until something significant happens. We only take care of ourselves when our health is bad, and we are weak, and aging. Then we use medicine to manipulate these pathways rather than just maintaining a healthy body our whole life. Each one of us is truly just lucky that medicine has evolved this far. Look at how lifespans have continued to increase over the last couple centuries. That's not because of our diets, food sources, and better genetics. Its better living conditions. Without the accessible health care, we would not be able to assume a guaranteed life of 80+ years old. That's unheard of, but the trends are going back down, in the opposite direction where children are dying before their parents because of the daily habits they have.

I'm no exception. The health of my body was on the edge of shutting down. I was extremely malnourished and one by one, systems were shutting down.

Starvation mode

It's a term called starvation mode where your body starts shutting down non-essential systems to conserve energy because you are malnourished. This happens if you restrict your diet for too long. Resulting in our organs and body system's degeneration, as cells individually die off and leave. This occurs when cells are not getting energy and are not getting used. Their response is to become obsolete, and isolate themselves from the system as they aren't needed anymore. Now remember that each one of these cells is connected to the system, whether it be organs, muscles, bones, or other systems. They are all made up of cells.

Your body's goal is to keep you alive for as long as possible. So in times of instability, the body simplifies parts not being used directly for survival, so the complex system doesn't have to worry about sending nutrients to them anymore.

If we aren't taking in enough calories or essential nutrients that our body would normally use, then we lose certain functions, cells start dying because they are not being provided with enough energy to continue living.

Some of the first bodily functions to GO AWAY in my body were having a weak digestive system, specifically noticing a weak bladder, and not being able to physically completely empty it. The bladder is a muscle, and it was not strong enough to contract all the way and empty itself.

Combined with low hormone production, idk about testosterone levels, but I was ALWAYS low energy! I was more irritable, and the smallest triggers stressed me out, and I was unable to mentally handle the smallest inconveniences, as they caused me to feel overwhelmed and mistreated. All internal self talk.

My resting heart rate was down to 35 BPM for a while. Just not moving as much, body was smaller, going from 180 pounds, down to 128, I assume there was less areas the body that blood had to be sent to. The heart was possibly getting smaller (since it is a muscle too). So with such a low blood flow, low iron, and other nutrients, I would feel dizzy and see darkness, every time I stood up.

With that, I was always cold. Often to the point where I couldn't warm up. I would have the heat on full blast in my car and I could feel my skin burning from the heat, but on the inside, I was still cold.

Standing in the cold, I could mentally get through it, but my skin, face, lips, and hands would turn purple. While at the same time getting a numb sensation I would deal with.

I had thinning hair, and even was losing hair, and I would get these random bald spots on the leg where hair was completely disappearing, possibly from rubbing it, and knocking them out, but I couldn't prove that to be true.

I was 20-22 during this downfall. I should not have ever experienced any of this. At this point in my life I was making significant changes to my lifestyle quickly!

I was purposely losing weight hoping to be thinner and get the shredder look, and was unaware on the consequences. The time it took for me to go from 180, healthy, constantly in the gym slightly overweight with a shadow of abs, to getting down to 128, was 1 year, according to pictures I look back at. After 1 year is when these health consequences really started to show up. With a majority of the weight coming off in the first 6 months.

Once I got to a smaller frame, it got more and more difficult to get the last stubborn fat to come off, as I fought and fought and fought to get as lean as all the people on social media. It felt impossible. My weight of 150 would have been a good stopping point, it was something to be proud of, but I was selfish, wanted the last few pounds, and risked it all for the shredded look.

It doesn't take long for the body to start giving up. I had no idea what I was getting myself into when I started. I didn't know any of this was possible. And I didn't realize it was a problem in the moment because it happened so gradually, I thought everything was normal. So for me to experience all of those bad things in such a short period of time, how can any of us truly know where we are on the spectrum from "healthy to unhealthy"?

Once I noticed one symptom, it seemed that all the rest started to appear one after another. It didn't even occur to me that anything was wrong until I noticed the first. None of us are indestructible, or an exception, I truly believe that a lot of people are closer to that edge of disaster than you might think.

You possibly believe that none of this could ever happen to you, and that was my original interpretation. This situation is unique, because I was forcefully causing malnourishment. Except nobody would ever do this on purpose, it only happens to those who are uninformed or get stuck in a value trap around false information.

The fact is that for every single one of us, our health is on a spectrum. All gradual and continuous, and as a population on a U-shaped curve, where there will be very few people who experience an abnormal situation, but there will always be a majority somewhere in between optimal health and poor health.

Who is to say that based on a processed food diet, you can't get this close to malnutrition? Cells need more than just calories, and processed foods don't offer much more than that.

The next sickness you get could put you into a place where you lose your appetite and get pushed over the edge to the point where your immune system becomes compromised and something bad happens. Nobody knows your situation as well as you do.

I admit that my decisions were somewhat consecutive, so I found the bottom of the scale quickly. While most of the population that I would refer to as being on the edge of disaster would have intermittent habits. However, I still believe that everything serious builds up over time.

The only way to truly know that you are healthy is to look at your daily food choices and how consistent you are across the month.

I promise unhealthy habits are not worth it. The journey downhill, along with the life at the bottom, and the journey back up to a healthy weight are miserable, and those words will never truly mean anything until you experience it yourself. If you're sick or hungry, all you're thinking about is survival. Like when I was at my thinnest, I used to wake up in the middle of the night to eat because I was hungry and felt like I was starving half to death.

Nutrient deficiencies are truly no joke, and can become a true threat to your quality of life, especially when you are still young and developing. Like the damage undernutrition causes to a growing fetus, and its mental development. One known cause is the lack of iodine leading to mental retardation, and this example was found to be the single leading cause of "preventable brain damage" in the world. Another fact is that if the baby is underweight and doesn't have enough fat, then it has a higher likelihood of having learning disabilities. These examples of damage to the developing brain are caused by directly affecting neural circuits or indirectly influencing children's experiences and behavior as they start to make decisions for themselves.

Facts like these are a caution to encourage people to change their actions. An example to initiate a change in behavior would be a new mother who is motivated to stop smoking and drinking when they have a child on the way, but that same individual can't be convinced to make the same exact changes when they are the only one at risk. So the question is, why can't people take initiative without external motivation?

Why is there more incentive to behave healthily when you are held responsible for someone else's well-being. Why do you take a problem more seriously when you are putting someone else at risk?

Accepting help from others

Nutrient deficiencies clearly affect how your brain works and may accelerate the rate at which your brain loses neurons, impairing your speech, coordination, and memory.

One of my biggest external motivators, was when I recognized that my memory truly was being affected by poor nutrition was during my preparation to take a 4 hour exam for my DAT (Dental Admissions Test). I had studied for 6 months, learning to recall basic concepts in biology, math, reading, and perceptual ability. A few weeks before test day, I had did a few last check overs, and it felt like I remembered nothing, I had to start cramming because all of my studying seemed to be forgotten. I was hurting my chances at a long-term career goal, because my goal to lose weight was taking priority over the health of my body.

What I learned from that experience is that you are in full control of your life, and you are the only one who knows when something is wrong. You can always hide your symptoms from your family and doctor, but you will never be able to beat your own struggles by yourself. You truly need help from the outside. You need an external viewpoint, and multiple people in your life acting as an influence to change your mindset and help you get through a problem you are experiencing. Without the encouragement from everyone around me offering help, and getting involved. I would not have made it out. So it's one of those embarrassing things that shows up, that just so happens to be the most important external motivations there are. This cant be neglected. They are the answer and the solution, that you just have to learn to accept as the facts over time as you face the hard truth, that this is the reality you placed yourself in.

You have to be honest with yourself and ignore the fear of judgment. You need to make your health your highest priority, and when your body starts to give you signs, it's important not to ignore the problems. These symptoms that manifest on the outside are signs that you need to fix something on the inside. Whether it be diseases or mental impairments, the body is trying to tell you that there is something wrong. So don't immediately start using medicine to hide these symptoms, because that is when you can start to accumulate chronic diseases, illnesses. When you use medications to mask these symptoms, it worsens and progresses to the next stage, so as you continue to push the issue down the road, it worsens.

If every organ and system in your body is connected, the organ or system that is the weakest link, and most vulnerable to damage will experience symptoms first. So many people us BMI as an indicator of health, but that seems unreliable to me, because there are so many other factors to consider about what you eat.

The body is complex, you have to do a comprehensive assessment to be able to determine where your health is at. We need medical checkups as humans to keep ourselves proper because we are fragile humans.

Even though research claims to understand the mechanism of aging overtime and damage that accumulates, I'd like to know if aging is necessary or just a function of our chromosomal technology.

Evolutionary theories, such as the antagonistic pleiotropy hypothesis, propose that certain genes that are beneficial early in life may have detrimental effects later in life, contributing to aging. For example, certain genes may be activated or deactivated at specific points in an organism's life, leading to age-related changes.

Others argue that aging is not specifically programmed but is a consequence of accumulated damage to cells and tissues over time. According to this view, aging is a result of wear and tear, the gradual accumulation of molecular and cellular damage, and a decline in repair mechanisms. The free radical theory of aging, for instance, suggests that oxidative damage caused by free radicals contributes to aging.

Although, current information doesn't tell us how to stop aging. We do know as a society, how NOT to accelerate the aging process, and that includes not smoking, drinking, being lazy, or eating unhealthy foods.

There is a reason we are supposed to eat healthy, and it's a lot more complicated than just weight management. The body is built from the food you eat, so if you think that you can trick the body into working with low calorie foods you're wrong.

Willpower does not magically give your food the nutrients it needs. Different foods have different molecules, you need all of them to get the entirety of them. Why do you think there are different colored flowers? Do you think it's because they all have the same DNA? Do they have the same proteins, polyphenols, carotenoids, flavanols, anthocyanins, betalains, chlorophyll?

Do they all target cellular components the same? How about antioxidant, anti-cancer properties? Anti-inflammatory, brain health, blood vessel function, eye protection, skin protection, heart health, liver detox, endurance and performance, blood pressure, wound healing, antibacterial, odor control, blood building management? What about each one's potency?

Food is even affecting your neurotransmitters. From the amino acids that make them, to the cofactors (vitamins and minerals) that help with the conversion, to blood sugar stability that affects dopamine and serotonin levels, to healthy fats that support dopamine and serotonin receptor function.

Imagine eating foods that created a loop. Craving → Quick fix → Crash → More craving. You're just perpetuating the continual reuse of it. Pathways created, are often designed for the repeatable use of. So if you aren't familiar with it, there won't be a desire to have it. A balanced diet is referring to the abundance of various options desirable.

Addictive behaviors are a function of human behavior. Actions are designed to be repeated. Changes are hard to make, but you aren't going to make the right decisions if all you do is say "stop using it", because addictions don't have to be bad. We just have to pick the next thing we want to get addicted to. Hopefully someone tells us that it's healthy.

The problem is that the grocery stores are saturated with unhealthy items. With **73 percent** of the U.S. food supply being ultra-processed choices, while at the same time are 52 percent cheaper than comparable healthy alternatives. You just can't get around it. The fact is, the middle class needs accessibility with their lifestyle.

Convenience is available, it's low effort, and easy to use. These statistics demonstrate a big influence in the decision making process of American shoppers who are already on a tight budget, and always on the go, living in a fast paced culture. We are being advertised to, manipulated by timelines, and targeted by big business who want our time and money.

In a way, ignorance means you are trapped. We fall for a product anytime we think it is a good deal, whether or not we want it again, we have had it before and it's there again. We become loyal to these brands because we begin to recognize their placement. As the familiarity increases, so does our preference and positive bias towards it.

If we had a good experience we will have it again. It's reliable, and now fits into our routines and habits. We know that if we keep picking it, we will get the same positive feeling as long as the product stays the same.

Many of us just assume that food is food, our choices are good enough. This item will be okay! This is the norm, because what even is a healthy item anyway? Are there some in the dairy aisle? Freezer aisle? Canned food Aisle? How about near the breads?

ARE WE SUPPOSED TO STAY BY THE FRESH foods?

Much of the public's confusion around nutrition stems from being underinformed or misinformed—often due to the influence of powerful industries. Large corporations invest heavily in product development and marketing, ensuring their items are visible and appealing. Meanwhile, healthier products often receive far less exposure, gradually being overshadowed or “morphed” into less distinguishable categories on grocery shelves. This deliberate blending of the healthy and unhealthy markets makes it increasingly difficult for consumers to make informed choices.

Politics and profit are deeply intertwined in this space. Laws and regulations that are meant to protect consumers can be manipulated when financial interests are involved. A striking example of this is the sugar industry's actions in the 1960s. According to a study published in JAMA Internal Medicine, industry executives funded research that downplayed the health risks of sugar while shifting blame to dietary fat (Kearns, Schmidt, & Glantz, 2016). This manipulated narrative influenced public health guidelines for decades—despite the fact that fat, especially healthy fats, plays a crucial role in satiety and overall health.

Citation (APA format):

Kearns, C. E., Schmidt, L. A., & Glantz, S. A. (2016). Sugar industry and coronary heart disease research: A historical analysis of internal industry documents. *JAMA Internal Medicine*, 176(11), 1680–1685. <https://doi.org/10.1001/jamainternmed.2016.5394>

Fats should not be criminalized because they are necessary for appetite regulation. A 2016 study published in *PLOS Medicine* says that lowering bad LDL cholesterol in the blood can help control blood glucose. We can do that by eating healthy fat sources, such as those found in plant oils, nuts, seeds, and certain types of fish.

Citation (APA style):

Imamura, F., Micha, R., Wu, J. H. Y., de Oliveira Otto, M. C., Otite, F. O., Abioye, A. I., & Mozaffarian, D. (2016). Effects of saturated fat, polyunsaturated fat, monounsaturated fat, and carbohydrate on glucose-insulin homeostasis: a systematic review and meta-analysis of randomized controlled feeding trials. *PLOS Medicine*, 13(7), e1002087. <https://doi.org/10.1371/journal.pmed.1002087>

Every cell membrane is made of a lipid bilayer. In animal tissue cholesterol is embedded in the cell wall along with phospholipids for strength and stability, acting as a molecular glue, keeping the structure cohesive yet flexible, without this the structure would be too fluid-like.

Cholesterol is the primary building block for hormones like cortisol, aldosterone, estrogen, testosterone, progesterone, DHEA, that pass through our body to turn on and off systems, by directly controlling gene expression, like a chemical messenger.

The truth is, cholesterol is not the enemy. The main determinant for heart disease risk is the type of lipoproteins (VLDL, LDL, HDL) that carry cholesterol around — not cholesterol itself.

LDL is not directly produced, it forms as a byproduct of VLDL, which are made by the liver to deliver triglycerides (fat) and cholesterol to your tissues, because your liver needs to send energy and building materials to yourselves. It's not about fat storage, if it's a lipoprotein, it has to be made by the liver.

Cholesterol is **not water-soluble**, so it can't float freely in blood. Instead it gets **esterified** (attached to fatty acids to make it nonpolar). This is available to get picked up by the blood. Where it can go to adrenal glands that need cholesterol to make steroid hormones which is only 10-15 cm away. Muscle cells which have receptors in active tissue, which may be 1-4 feet away. Skin cells may pull LDL for membrane turnover which could be 2-3 feet away. However, the brain makes its own cholesterol, so it doesn't use LDL, especially since LDL can't cross the Blood Brain Barrier anyways.

Cholesterol is unstable in the lipoprotein core without esters attached because the OH group tries to face water. Esters **removes the polar OH group** (replaces it with a fatty acid), making the whole molecule **completely hydrophobic, which** allows it to be **buried in the center** of LDL.

LDL is built **specifically** to *prevent* hydrophobic molecules like cholesteryl esters from escaping into the bloodstream. **LDL doesn't passively diffuse — it is secreted from the liver cell into the blood by a process called *exocytosis*.**

No gates, no passive leaking — this is an **active, directed export**. Specifically, VLDL (which later becomes LDL) is assembled in the **endoplasmic reticulum (ER)** and **Golgi apparatus** of hepatocytes (liver cells).

It's built piece by piece: triglycerides, cholesteryl esters, phospholipids, ApoB-100. The mature VLDL particle is placed inside a **transport vesicle** — a small bubble made of membrane. This vesicle buds off the Golgi apparatus and moves toward the cell membrane.

Once LDL binds to the receptor, the whole complex is pulled into the cell through **endocytosis** (it forms a vesicle inside the cell). Inside the cell, the vesicle fuses with a **lysosome**, an acidic compartment with enzymes.

VLDL is essential for energy delivery to muscles, heart, membranes, fat storage, and transportation of steroids, vitamin D, and bile acids. VLDL helps with efficient distribution when demand is high. VLDL gets too high when you overeat refined carbs and sugars.

LDL becomes problematic if it sticks around for too long. Meaning low receptor activity, poor clearance, or inflammation. LDL can get oxidized (a chemical reaction that occurs when LDL reacts with free radicals) when it stays in the blood for too long. Oxidized LDL (oxLDL) is more likely to stick to the walls of arteries and initiate the process of atherosclerosis.

Small, dense LDL particles are dangerous because they are more likely to penetrate the arterial wall and get trapped, leading to inflammation and plaque buildup. Large, buoyant LDL particles are less likely to cause atherosclerosis.

HDL is most active when cholesterol needs to be removed from tissues and artery walls. HDL rises and is the most abundant with healthy fat intake, after exercise, fasting, during low inflammation, or just when the body is metabolically healthy. HDL carries antioxidant enzymes, neutralizing oxidized lipids, therefore inhibiting inflammatory signalling.

Nascent HDL is made in the liver, and its main job is to transport cholesterol back to the liver. HDL circulates the blood looking for early atherosclerosis, areas of high cholesterol, or particles like VLDL or LDL.

Once cholesterol is returned to the liver, it gets recycled for bile acids, new lipoproteins, or cell membranes and hormones. The liver can even package up excess cholesterol and excrete it into bile, which gets eliminated in your stool. Just as the structure of cholesterol affects its transport, the structure of dietary fats affects how they're absorbed, used, and influence blood lipids.

The fats we eat don't just fuel us — they also shape the types of lipids circulating in our blood. These dietary fats, once absorbed, are reassembled into triglycerides, packed into lipoproteins like chylomicrons or VLDL, and directly influence cholesterol balance and cardiovascular health.

Saturated fats are bound through single bonds, so they stack well and are solid at room temp. Saturated fat is packed tightly so liver enzymes can rapidly convert it into triglycerides making it easily storable in **adipose tissue** (especially visceral fat). Overconsumption → leads to buildup in **liver** (fatty liver) or **arterial walls**. **Digests slowly, but doesn't trigger many hunger-suppressing hormones.**

Monounsaturated fat (MUFA) is less likely to be stored as fat; more likely to be **burned**. **Preferred energy source for liver and muscles. Enhances insulin sensitivity and fat oxidation. Stimulates GLP-1 and PYY (appetite-reducing hormones).**

Unsaturated fats are liquid at room temp, and have common double bonds, which lay in kinks, all in cis format (same direction). Cis-unsaturated fat are flexible and found in plant oils. Olive oil is 75% monounsaturated fatty acids, Olive oil, avocados, and almonds only have one double bond.

Polyunsaturated fat (PUFA) is stored sparingly; often used immediately in membranes or signaling. Precursors to eicosanoids, prostaglandins, and inflammation modulators. Rapidly taken up by the brain, retina, immune cells. Strongly activates satiety hormones, and may influence hypothalamic appetite control.

Polyunsaturated fat like sunflower oil, flaxseeds, walnuts, fatty fish have more than one double bond, but include Omega-3s and Omega-6s. **Omega 3 is preferentially used in neurons, not stored much. Omega 6 is stored in cell membranes, can compete with omega-3s.**

Trans fats have alternate facing double bonds making it a biological mixmatch. Trans fats are straight and rigid, making them stiffer and less permeable, causing membranes to become more vulnerable to damage, while also causing disruptions in cell signalling and cellular transport functions.

Trans fats are created through a process of adding hydrogen gas is added to unsaturated fatty acids like vegetable oils in the presence of a metal catalyst (usually nickel or platinum). Turning liquid into semi-solid fats like margarine or shortening. This extends the shelf life of processed foods because fat-processing enzymes (like desaturases or elongases) don't recognize trans fats properly.

Trans fats promote chronic inflammation in blood vessels, by inserting themselves as the wrong-shaped puzzle piece. Fitting just close enough to cause dysfunction. Trans fats jam the machinery, block normal processes, and linger too long in the tissues. Increasing LDL, lower HDL, increase inflammation and plaque formation, and increase the risk of heart disease, stroke, and type 2 diabetes.

The American Heart Association recommends limiting saturated fats – which are found in butter, cheese, red meat and other animal-based foods, and oils. Decades of sound science has proven it can raise your “bad” cholesterol and put you at higher risk for heart disease. Trans fats oils have been used as preservatives, but are now banned or restricted in many countries including the U.S.

A good guideline to follow is using unsaturated fats because they are good and liquid at room temperature, while saturated fats are solid. Saturated fat found in processed foods including snack foods, baked goods and processed meats, raises the bad (LDL) cholesterol in blood.

Fats slow the release of carbs into your bloodstream so they are dietarily used for satiety and to create the feeling of fullness. Fats dissolve and concentrate flavor and odor chemicals, so they also help you enjoy the taste of food!

Fats play a role in food appearance (a shiny or glossy look), aid in the browning process, adds to the texture (crispness, density, flakiness), absorb flavors, and transfer heat to food.

The false accusation of fats being the problem has changed the way the food industry advertised their food products. Businesses now cater towards the modern human preference, what we think we want, based upon what we've been told.

Fats delay gastric emptying, especially liquid oils → stomach stays full longer. Fat digestion releases **cholecystokinin (CCK)** → tells your brain to stop eating. MUFA & PUFA also increase **GLP-1 and PYY** → longer-term appetite suppression. **Texture & flavor** (from fats) enhance **psychological satisfaction**.

vitamins

Nutrients in the body drive it all: appetite, energy, mood, focus, reliance, recovery, and long-term health. Every feeling you have—hunger, joy, fatigue, sadness, inspiration—is rooted in chemistry.

ATP output drops when the body lacks key cofactors like B-vitamins, magnesium, or iron. These deficiencies impair core energy cycles—glycolysis, the Krebs cycle, and the electron transport chain. For example, iron deficiency reduces the oxygen-carrying capacity of red blood cells, limiting oxygen delivery to mitochondria and suppressing ATP production.

Nutrient transport across membranes is what determines what gets into the cell—and what the cell can actually do. The eight B vitamins and vitamin C dissolve in the watery environment of the intestine and **must use specific transporter proteins** on the cells lining the intestine (**enterocytes**) to pass through the gut wall and enter the bloodstream.

Most B-vitamins are inactive when absorbed and must be converted into coenzymes, which activate enzymes involved in energy production, neurotransmitter synthesis, DNA repair, and detoxification. Enzymes are often already present—just waiting for their vitamin cofactor. As soon as they get it, metabolism speeds up and symptoms like fatigue or brain fog often improve rapidly.

Enzymes in your cells are already present—they're just waiting for their vitamin cofactor. The moment they get it (e.g., B1, B2, B3, B6, B12), they resume full speed in making energy, neurotransmitters, or detoxifying waste.

Many symptoms (brain fog, fatigue, anxiety) are due to bottlenecks in metabolic pathways. Providing the rate-limiting vitamin **immediately unblocks the system**, allowing fast symptom relief.

Fat-soluble vitamins diffuse into enterocytes by slipping through the lipid bilayer, thanks to their nonpolar nature. Only small, nonpolar, uncharged molecules—like free fatty acids, cholesterol, and fat-soluble vitamins—can enter enterocytes via passive diffusion. Most other nutrients require specific transporters.

Each nutrient—depending on its size, charge, solubility, and function—uses a unique absorption pathway. These pathways are not fixed; they adapt based on the body's immediate needs, meal content, and systemic balance. Here's how they work, one by one:

Sodium has to be concentrated *outside* the enterocyte (in the intestinal lumen) for the gradient to work. And no, it's not just the sodium from food — the body actively pumps sodium out of the cell to maintain this gradient, regardless of how much sodium is in the food.

At the basolateral side of the enterocyte (facing the bloodstream), there is a protein called: Na^+/K^+ ATPase (sodium-potassium pump). It pumps 3 Na^+ out of the cell into the blood brings 2 K^+ in, uses ATP (active transport). This creates low sodium inside the enterocyte, and high sodium in the intestinal lumen (outside the cell). This gradient is the *fuel* that powers nutrient symporters.

With sodium now concentrated outside the enterocyte, the cell uses that energy to bring nutrients in. SGLT1 (sodium-glucose transporter) brings Na^+ + glucose into the cell together. Na^+ -amino acid transporters, bring Na^+ + amino acids in via co-transport. These symporters don't use ATP directly — they use the stored potential energy from sodium's gradient. It's like water behind a dam — sodium "wants" to rush in, and it drags nutrients in with it.

Some comes from food, yes — sodium in your diet ends up in the intestinal lumen, but even without food sodium, your body secretes sodium-rich fluids (via the pancreas, bile, and intestinal juices), which keeps circulating sodium in the lumen for absorption needs. Sodium is recycled — what isn't absorbed with nutrients gets reabsorbed later in the intestine or colon. The sodium gradient is maintained by the body — it's not dependent on how much sodium is in your last meal.

Fatty acids + Monoglycerides are absorbed through concentration gradient, so no energy needed for this passive diffusion (from micelles into enterocytes). It's supply-driven (so not actively adjusted by the body). The body absorbs almost all available fat regardless of need. ~95%+ of dietary fat is absorbed under normal conditions

Fat-soluble vitamins (A, D, E, K) require bile release + chylomicron formation for emulsification. For passive diffusion absorption is regulated indirectly by fat intake and bile availability; no direct upregulation of absorption, but deficiency increases receptor expression for some (e.g., vitamin D transporters). ~20–80%, depends on bile production, dietary fat, and gut health.

Glucose + Galactose are actively transported via SGLT1 (sodium-glucose co-transporter) and requires ATP indirectly (uses Na⁺ gradient). SGLT1 expression regulated by glucose levels and insulin/GLP-1. High glucose load increases SGLT1 expression; incretins (GLP-1, GIP) and insulin sensitivity modulate transporter function. ~98% absorbed, mostly in the jejunum.

Fructose is absorbed through facilitated diffusion via GLUT5. It's passive but uses a specific carrier protein. GLUT5 expression is modulated by intake. Frequent fructose intake upregulates GLUT5 expression; low use = downregulation.

Amino Acids require active transport (Na⁺-dependent symporters). There are multiple transporters for different amino acid classes. Multiple Na⁺-dependent transporters are upregulated by demand (e.g., starvation, exercise, injury). Some transporters increase expression when plasma AA levels are low or during muscle rebuilding. ~92–97% absorbed, mostly as amino acids or small peptides.

Dipeptides/Tripeptides require active transport via PEPT1 (H⁺-coupled transporter). Often absorbed faster than single amino acids. PEPT1 transporter is highly efficient and upregulated by protein load. High protein meals increase PEPT1 expression; also influenced by GI hormones (e.g., CCK).

Water-soluble vitamins (e.g., B12, C), require specific carrier proteins, some regulated by deficiency. B12 needs intrinsic factor (IF); vitamin C has saturable transporters (SVCT1/2), which are upregulated during deficiency. Absorption varies greatly — e.g., iron: 10–20%; B12: <2% unless bound to intrinsic factor.

Minerals require facilitated or active transport, often regulated and heavily dependent on need, form, and dietary context.

Water is absorbed by passive osmosis; regulated by solute gradients and hormones. Aldosterone and vasopressin (ADH) regulate electrolyte and water reabsorption; absorption responds to needs via osmotic pull.

Once absorbed into the enterocyte, fat-soluble vitamins (A, D, E, and K) are packaged with triglycerides and cholesterol into large particles called chylomicrons. These particles are too big to enter blood capillaries, which are selective and tightly sealed—designed to absorb small, water-soluble nutrients like glucose, amino acids, and B/C vitamins.

Instead, chylomicrons enter lacteals, the wide, leaky lymphatic vessels found inside the intestinal villi. Unlike blood vessels, lacteals easily take in large, oily structures like fats, immune cells, and cellular debris. From there, chylomicrons move through the lymphatic system—a separate, slow-moving fluid network that bypasses the liver and avoids triggering an immune response to dietary fats.

Lymph eventually drains back into the bloodstream through the thoracic duct near the subclavian vein. Unlike blood, which is pumped by the heart, lymph is moved by muscle contractions and valves, not pressure. Key advantage: This system allows fat and fat-soluble vitamins to circulate without overwhelming the immune system or being filtered too early.

Once in the bloodstream, fat-soluble vitamins are gradually delivered to tissues, where they enter specific cells and often bind to nuclear receptors, switching genes on or off. Their effects are subtle but essential—supporting vision (vitamin A), bone health (vitamin D), antioxidant defense (vitamin E), and blood clotting (vitamin K).

Unlike water-soluble vitamins, fat-soluble ones don't act immediately or exit in urine. They're stored in fat tissue and used over time, making them more potent, slower-acting, and more easily accumulated to excess.

Not all nutrients are absorbed the same way. Fat-soluble vitamins require a completely different system than water-soluble ones. The lymphatic system is an overlooked but essential pathway in digestion and health. Fat-soluble vitamins have a slower, more systemic impact—they don't act like quick-fix stimulants (e.g., caffeine); they rebuild, regulate, and protect.

They take longer to work, that's why deficiency symptoms are subtle, long-term, and serious. Processed foods, which lack these, lead to system-wide breakdown.

Unlike fat-soluble vitamins, water-soluble vitamins (B-complex and C) don't need packaging or lymphatic rerouting. They dissolve directly in the watery environment of the small intestine and use specialized transport proteins to enter intestinal cells. From there, they're absorbed straight into nearby blood capillaries, riding the portal vein to the liver and beyond.

These vitamins act quickly but temporarily. Most are not stored long-term in the body. Once absorbed, they travel freely in blood, perform critical coenzyme functions in energy production, neurotransmitter synthesis, and DNA repair — and are then excreted in urine if unused.

Because the body can't store most of them, regular intake is essential. Deficiency symptoms — like fatigue, poor memory, and mood swings — can appear within days or weeks.

Once absorbed, nutrients don't just float aimlessly in the bloodstream—they're put to work. Some embed into tissues, some activate enzymes, and others act as messengers. Their effects shape every dimension of your experience: growth, thought, energy, resilience, and emotion.

Take vitamin D, for example. It behaves like both a nutrient and a hormone. Ultraviolet rays from sunlight trigger its production in the skin—a unique feature among vitamins. Once activated, vitamin D enables the body to absorb and retain calcium and phosphorus, making it essential for strong bones and teeth. But it doesn't stop there. Vitamin D plays critical roles in reducing inflammation, regulating immune responses, and even helping prevent abnormal cell growth in tissues. It stores in fat and is released slowly, providing long-term support to foundational systems like skeletal strength and cellular defense.

Contrast that with vitamin B12, a water-soluble nutrient with a complex absorption pathway. It must first bind to protein in food, then be freed in the stomach, and finally pair with intrinsic factor before it can be absorbed in the small intestine. Once inside the body, B12 becomes vital for red blood cell formation, DNA synthesis, and nervous system integrity. Without it, cells struggle to divide, energy dips, and neurological symptoms can appear—sometimes subtly, sometimes severely.

Minerals are the body's electrical and structural anchors. The body uses manganese to produce energy, it plays a role in blood clotting, and it supports the immune system. Too little can result in weak bones in children, skin rashes in men, and mood changes in women. Too much can lead to tremors, muscle spasms, and other symptoms, but only with very high amounts. Foods like mussels, hazelnuts, brown rice, chickpeas, and spinach all provide manganese.

Copper helps the body make energy and produce connective tissues and blood vessels. Too little copper can lead to tiredness, patches of light skin, high cholesterol, and connective tissue disorders (this is rare.) Too much copper can result in liver damage, abdominal pain, nausea, and diarrhea. Too much copper can also reduce the absorption of zinc. Good sources include beef liver, oysters, potatoes, mushrooms, sesame seeds, and sunflower seeds. ([medicalnewstoday.com](https://www.medicalnewstoday.com))

Selenium is made up of over 24 selenoproteins, and it plays a crucial role in reproductive and thyroid health. As an antioxidant, it can also prevent cell damage. Too much selenium can cause garlic breath, diarrhea, skin rashes, brittle hair or nails, and other symptoms like irritability. Too little can result in heart disease, infertility in men, and arthritis. ([medicalnewstoday.com](https://www.medicalnewstoday.com))

Iron is crucial for the formation of red blood cells, which carry oxygen to all parts of the body. It also plays a role in forming connective tissue and creating hormones. Too little can result in anemia, including digestive issues, weakness, and difficulty thinking. Too much can lead to digestive problems, and very high levels can be fatal. Good sources include fortified cereals, beef liver, lentils, spinach, and tofu.

They recommend eating liver and organs because of how nutrient dense they are. Even though the liver may be what filters toxins, it's the fat that stores toxins.

Oxygen transfer in alveoli air sac. Oxygen is essential for ATP generation through oxidative phosphorylation, and therefore must be reliably delivered to all metabolically active cells in the body.

As metabolic activity continues carbon dioxide increases. CO₂ combines with water to form carbonic acid. This increase in acid lowers the pH. The lowered pH then decreases hemoglobins affinity for oxygen, meaning hemoglobin lets go of oxygen more easily. As a result, more oxygen is released at the site of the muscles and tissues that are highest in CO₂ proportions because they are burning fuel, and giving off CO₂ as a byproduct.

When the affinity of O₂ and CO₂ is compared, it is more about CO₂. Hemoglobin carries carbon dioxide in the form of carbamino haemoglobin (25% approx). This binding % totally depends on the partial pressure of CO₂. Once one CO₂ attaches there is a higher attraction for more to attach, and then at the drop off site, as the first one detaches, the sequence follows this dissociation curve

Hemoglobin is the protein in red blood cells that enables oxygen to attach and travel around the body. Red blood cells are renewed in the millions every day, so the body needs to break down old cells.

Red blood cells circulate in the bloodstream for around 120 days. As they age, their membranes become less flexible and more susceptible to damage, especially as they squeeze through narrow capillaries and splenic sinusoids.

The spleen acts like a quality control filter. Specialized immune cells called **macrophages** engulf old or damaged RBCs by **phagocytosis**. Once recognized, the macrophage extends its **pseudopods** (arms of its membrane) around the RBC. The cell is internalized into a bubble called a **phagosome**.

The **phagosome** fuses with a **lysosome** (an organelle full of digestive enzymes), forming a **phagolysosome**. Inside this chamber, **proteases** break down **globin** into amino acids for other proteins. **Heme oxygenase-1 (HO-1)** enzyme cleaves the **heme** group, releasing **iron** (Fe²⁺), sending to the **bone marrow** (via transferrin) to make new RBCs. Or stored in **ferritin** molecules for later use.

The rest of the heme ring is converted into **biliverdin** (a green pigment), then into **bilirubin** (a yellow pigment). **Unconjugated bilirubin** (not water-soluble) is sent to the **liver**, where it is **conjugated** (made water-soluble). It is then excreted into **bile**, passes into the intestines, and is eventually eliminated **in feces** (as stercobilin – brown pigment), or **in urine** (as urobilin – yellow pigment, gives urine its color).

Iron is crucial for the formation of red blood cells, which carry oxygen to all parts of the body. It also plays a role in forming connective tissue and creating hormones. Too little can result in anemia, including digestive issues, weakness, and difficulty thinking. Too much can lead to digestive problems, and very high levels can be fatal. Good sources include fortified cereals, beef liver, lentils, spinach, and tofu.

Holistic and detox-focused practitioners recommend eating liver and organs because of how nutrient dense they are. Claiming that even though the liver may be what filters the toxins, it's the fat that stores them.

Calcium is needed to form bones and teeth. It also supports the nervous system, cardiovascular health, and other functions. Too little can cause bones and teeth to weaken. Symptoms of a severe deficiency include tingling in the fingers and changes in heart rhythm, which can be life-threatening. Too much can lead to constipation, kidney stones, and reduced absorption of other minerals. Good sources include dairy products, tofu, legumes, and green, leafy vegetables. (ods.od.nih.gov)

Phosphorus is present in all body cells and contributes to the health of the bones and teeth. Too little phosphorus can lead to bone diseases, affect appetite, muscle strength, and coordination. It can also result in anemia, a higher risk of infection, burning or prickling sensations in the skin, and confusion. Too much in the diet is unlikely to cause health problems, however toxicity is possible from supplements, medications, and phosphorus metabolism problems. Good sources include dairy products, salmon, lentils, and cashews.

Magnesium contributes to muscle and nerve function. It helps regulate blood pressure and blood sugar levels, and it enables the body to produce proteins, bone, and DNA. Too little magnesium can eventually lead to weakness, nausea, tiredness, restless legs, sleep conditions, and other symptoms. Too much can result in digestive issues and eventually heart problems. Good sources of magnesium are nuts, spinach, and beans ([Medicalnewstoday.com](https://www.medicalnewstoday.com))

Zinc plays a role in the health of body cells, the immune system, wound healing, and the creation of proteins. Too little can lead to hair loss, skin sores, changes in taste or smell. Too much can lead to digestive problems and headaches. Dietary sources include oysters, beef, fortified breakfast cereals, and baked beans. ([Medicalnewstoday.com](https://www.medicalnewstoday.com))

Potassium is an electrolyte. It enables the kidneys, heart, muscles, and the nerves to work properly. Too little can lead to high blood pressure, stroke, and kidney stones. Too much may be harmful to people with kidney disease. Avocados, coconut water, bananas, dried fruit, squash, beans, and lentils are good sources of potassium.

Sodium is an electrolyte that helps maintain nerve and muscle function and regulate fluid levels in the body. Too little can lead to hyponatremia. Symptoms include lethargy, confusion, and fatigue. Too much can lead to high blood pressure, which increases the risk of cardiovascular disease and stroke. (medlineplus.gov)

Table salt, which is made up of sodium and chloride, is a popular condiment. However, most people consume too much sodium, as it already occurs naturally in most foods. Salt is used as a universal flavor improver because at low concentrations it will reduce bitterness, but increase sweet, sour and umami, which is desirable for sweet recipes. At higher concentrations it suppresses sweetness and enhances umami, which is good for savory foods.

Eating a lot of salt can cause your body to retain more water, which can show up on the scale as extra pounds, but we're not just talking about water weight here. High salt diets appear to be linked to higher body fat.

Hyponatremia is when there are low sodium levels in the blood. It can lead to lethargy, confusion, fatigue, muscle cramps, and other more harmful symptoms. Salty food reduces thirst and increases hunger.

Experts urge people not to add table salt to their diet. Current guidelines recommend consuming no more than 2,300 mg of sodium a day, or around one teaspoon. This recommendation includes both naturally-occurring sources, as well as salt a person adds to their food. People with high blood pressure or kidney disease should eat less.

Carnivorous animals can get salt from raw meat, but herbivorous animals need to seek salt out from sources other than plants

The average body has 4 oz of salt reserves, but we are always secreting it in sweat and urine, so we have to replenish it. Research shows that taking salt before a workout will increase blood volume, improve blood flow, and allow you to work out longer. A dose of salt before your workout replaces what your body will lose in sweat and reduces the risk of hyponatremia (low sodium).

Excess sodium makes the body retain water, which can cause bloating. According to the Centers for Disease Control and Prevention (CDC), about 90% of people in the United States consume too much sodium.

As the country started marketing low fat foods, it changed the taste, and they had to replace it with salt and sugar, to keep its palatability. Not surprisingly, the standard foods on an American diet are causing prolonged inflammation.

The foods that are generally considered bad for our health, including refined carbohydrates, such as white bread and pastries, french fries and other fried foods, soda and other sugar-sweetened beverages, processed meat (hot dogs, sausage), margarine, shortening, and lard. During the process of refining, all the nutrients (vitamins and minerals) are removed and white flour becomes acidic in nature.

A diet high in acidic foods like fast foods and other white flour products forces the body to pull calcium from bones which in turn affects bone density. Over-acidity is one of the primary causes of chronic inflammation, which may cause arthritis and other chronic illnesses.

The American diet has changed drastically since 1800 due to industrial and technological advances, geographic spread, urbanization, wars, cultural changes, as well as the globalization of fast food chains.

Food availability has changed the way we view and consume calories. Assuming that there has been a change in the population with that amount of people who have obesity, it suggests that there has been a corresponding shift in either lifestyle, food environments, or biological responses.

1916 – White Castle (founded in 1921) is often credited as the first fast food chain, standardizing food prep and cleanliness. **1940** – The **first McDonald's** was opened by the McDonald brothers in San Bernardino, California. **1955 – Ray Kroc** franchised McDonald's and helped launch it into national and global prominence. **1960s–70s** – The fast food industry exploded with brands like **Burger King, Taco Bell, Wendy's, and KFC** spreading across the U.S.

Pre-Industrial Era (Pre-1800s) most people grew or hunted their own food, or traded within small communities. Food was sold fresh at local markets; preservation was limited to methods like smoking, salting, fermenting, drying (e.g., jerky, salted cod) affected flavor and texture. **Ingredients** were simple, whole, locally-sourced: vegetables, grains, legumes, fresh or preserved meats, herbs. Seasonal and unprocessed — no synthetic ingredients.

Example meal:

→ *Stew of root vegetables, beans, salt-cured meat, and herbs grown nearby.*

Recipes had no exact measurements, passed down orally. Cooking was slow, using hearths and open flames. Focused on sustenance, not flavor variety or indulgence. **Sweeteners** were limited mostly to honey, fruit, or small amounts of sugar (expensive and rare). Meals were whole-food based, not labeled, but meals were high in fiber and low in refined carbs or fats.

Industrial Revolution (1800s) **railroads** revolutionized food transport. Perishable goods could now travel long distances. Cities could access fresh produce and meat from rural areas. Canning (1810s–1820s) was invented for military food storage. Allowed long-term shelf-stable food for civilians. Popular canned goods: beans, tomatoes, meats, and condensed milk. During the mid-1800s iceboxes and refrigerated railcars extended the life of perishable foods, allowing for the meatpacking industry (e.g., Chicago stockyards) to flourish.

Ingredients evolved to the start of processed flour, white sugar, canned goods, and industrial salt. Still mostly whole foods, but with emerging additives like baking powder, and early preservatives

Example meal:

→ *Biscuits made from milled white flour, canned condensed milk, and salt pork.*

Recipes entered print form (cookbooks became common). Processed ingredients added convenience. Urbanization meant more meals away from home — taverns, boarding houses, cafeterias. Canned and boxed foods began entering homes. Refined sugar and white flour became common pantry items. Recipes started including sugar as a norm, not just a treat. No nutritional labels yet, so consumers had no insight into proportion changes.

Early 20th Century (1900–1940s) grocery chains began emerging. A&P (Great Atlantic & Pacific Tea Company) became a national grocery chain. Stores offered dry goods, canned foods, and some fresh items. Roadside diners and drive-ins popped up. Early "quick service" restaurants served travelers (precursors to fast food).

Food processing innovations were the pasteurization of milk, mechanized baking and milling, and margarine as a butter alternative. **Ingredients expanded to industrially produced oils** (cottonseed, margarine). First synthetic flavors and colors (e.g., bright icing). Early versions of hydrogenated fats. Boxed cereals and canned soups gain popularity. Recipes often sponsored by food companies (e.g., Jell-O, Campbell's), and **started to emphasize** convenience and shelf-life.

Example meal:

→ *Casserole using canned soup, margarine, boxed noodles, and breadcrumbs.*

Before Fast Food (Pre-1920s–1950s) food was primarily seen as nourishment, tied closely to survival, routine, and family tradition. Meals were homemade, seasonal, and regionally based. Preparation took time and effort. Food was a labor of love, community, and necessity — not abundance or choice.

Local or homegrown — people often *knew* the farm, the butcher, or grew their own vegetables. Cooking wasn't optional — it was a responsibility. Meals were slow and tied to rituals: Sunday dinners, holidays, seasons. You could taste someone's heritage in their food — Sicilian stews, German breads, Appalachian preserves. Less waste due to preservation methods (fermenting, salting, canning) and economic respect for food. Food was something you *worked for*, not something that *worked for you*.

Key Innovations That Led to Fast Food were assembly-line food prep (borrowed from Henry Ford) introduced by McDonald's in the 1940s. **Mass refrigeration** in restaurants and stores could stock and serve cold items. **Pre-packaged meals** gained popularity in the 1940s and exploded post-WWII.

Rise of Fast Food (1940s–1970s) led to the common use of refined flours, sugars, and industrial seed oils, preservatives (e.g., sodium benzoate, BHA/BHT), processed meat products (e.g., hot dogs, lunch meat), high-fructose corn syrup emerges in the 1970s. Standardized and mass-produced, minimal fiber, vitamins, or whole ingredients.

Example meal:

→ *Burger bun (bleached flour + preservatives), processed cheese, ground beef with added nitrates, fries fried in hydrogenated oils, and a sugary cola.*

Perception of food became associated with speed, convenience, and consistency. A “meal” could be had in minutes. Branded foods and combos created expectations — fries, soda, and burgers became “normal.” Fast food evoked excitement, novelty, and modern life. Eating out became a treat. **Food became a symbol of freedom, modernity, and personal indulgence.**

McDonald’s “Speedee Service System” replaced short-order cooks. The drive-thru changed eating into a transaction. **Standardization** allowed for a burger that tasted the same across the country — comforting but detached from place. Ads began targeting kids (Happy Meals), suggesting food could be *fun* or *deserved*. Convenience became virtue — food in 5 minutes was better than food in 50. Less ritual, more reward: “You’ve earned this.” “Have it your way.” Food became about *efficiency*, not effort — a quick fix, not a relationship.

Supermarket & Processed Food Boom (1980s–2000s) is when processed and frozen meals became standard for convenience. **Sugar and sodium increased** dramatically across all categories—ketchup, bread, soups, salad dressing. Sugar was added not just for taste, but also for texture, shelf-life, and addictive palatability.

Shelf-stable, frozen, and microwavable became symbols of progress and independence. Food lost its temporal rhythm — strawberries in winter, 24/7 snacks, breakfast bars. Choice replaced tradition. Food became personal, portable, and highly marketed. Bright, attractive boxes shaped how kids and adults viewed what was “yummy.” Low fat, sugar-free, and “100-calorie packs” created a pseudo-science around food.

Home cooking became secondary — frozen meals and takeout filled the gap of time-starved households. **Emotionally, food** became convenient *and confusing*. People weren’t sure what “healthy” meant anymore. Food became *manipulated* — a product with claims, promises, and additives.

Cultural lens is that food is a performance — something you photograph, journal, “track,” or link to values (organic, vegan, keto). With a **paradox** showing an abundance of options = more anxiety. “Should I eat this?” is a daily question, not a celebration.

Marketing shifts as influencers replace dietitians. Brands lean into storytelling — “ancient grains,” “ancestral health,” “gut reset.” **Tech influence** calorie apps, smart scales, glucose monitors — eating is tracked like a science experiment.

Emotional conflict leads to guilt, control, shame, or purity becoming tied to meals. Food becomes a source of power — or punishment. The mindset on food is that it is *symbolic*. What you eat says who you are — clean, informed, disciplined... or not.

Modern Era (1980s–Today) ingredients surge in ultra-processed foods: emulsifiers, stabilizers, artificial sweeteners, synthetic flavors, fortified foods (vitamins/minerals added back in). “Healthy” marketing (e.g., low-fat, high-protein, gluten-free) — not always nutrient-dense. Organic and whole food re-introduction alongside mass processed foods.

Example meal (ultra-processed):

→ *Protein bar with 25 ingredients: soy protein isolate, sucralose, artificial flavors, palm oil, preservatives.*

Example meal (whole-food-based):

→ *Grain bowl with quinoa, roasted vegetables, tahini dressing, and fresh herbs.*

In 1900: average person consumed **2–4 tsp/day** (~20g). In 2020: average American consumes **17 tsp/day** (~70g), mostly from hidden sources. Food is branded by function (energy, detox, keto, mood-boosting). **Nutrition labels** introduced—sugar now explicitly listed, but *added sugar* wasn’t required until 2020 in the U.S. Ultra-processed food exploded: protein bars, sugary yogurts, low-fat snacks with hidden carbs. The “**health halo**” trend took off, adding vitamins/fiber to junk foods to make them seem healthy.

Digital & Wellness Era (2010s–Now) perception of food is a lifestyle choice. It’s not just about eating — it’s about identity, ethics, and performance. We **experience** instagram meals, diets-as-brands (keto, paleo), and “clean eating” redefine what food *means*. Our **emotional ties** conflicted, because food can feel healing, confusing, indulgent, or performative depending on the context.

Scarcity vs. Celebration. In the past, feasts were rare, symbolic, and community-driven. They celebrated harvests, weddings, or religious milestones. **Now**, celebratory foods are available daily. Birthday cake, pizza, chips, and soda aren't rare anymore—they're normal. Constant access blurs the emotional impact once tied to special foods.

Cooking as a Family Ritual vs. Individual Microwave Meals. In the past, preparing food was a family ritual. Everyone helped, stories were shared, and culture was passed down through recipes. **Now**, many people eat alone or grab quick, ready-made meals. Cooking feels like a chore, not a bonding experience, eroding cultural ties to food.

Trust in Nature vs. Trust in Industry. In the past, people trusted what grew from their soil and raised on their land. **Now**, trust is outsourced—to brands, labels, scientists. We check packaging for legitimacy. Even “natural” needs a barcode and certification.

Food as Identity Signaling vegan, keto, organic, paleo, gluten-free—food choices now signal values, tribes, or aspirations. The plate is a performance of self. Before, food identity was more about geography and tradition, not ideology.

Food as Pleasure vs. Food as Control. Food can still be pleasurable—but many feel guilt, track macros, count calories, or restrict “bad” foods. The pursuit of the “perfect body” has turned food into a battleground for self-discipline, especially post-1970s with the rise of diet culture.

So what’s the solution:

Cook one thing a week, from scratch. You don't need to be a chef. Pick one item—rice, roasted vegetables, a sauce—learn its flavors. Make it yours. This rebuilds agency and familiarity with food as an ingredient, not just a product.

Eat without screens or stress. Eating in silence or conversation slows you down. It gives the brain time to notice fullness and remember the experience. Even 10 mindful bites without distraction helps rebuild taste perception and satisfaction.

Learn one food story per month. Why do some cultures ferment cabbage? What's the history behind salt-preserved fish? Food isn't just fuel—it's anthropology, chemistry, and storytelling. Learning makes food feel richer than calories ever could.

Ask: "How will I feel *after* eating this?" This bypasses guilt and taps into personal awareness. Over time, you'll naturally gravitate toward meals that satisfy physically and emotionally, not just impulsively.

Treat grocery shopping as self-respect, not a chore. Every item is a vote: for your future body, for your mind, for your values. Even small swaps—like whole grain over refined, fresh over boxed—begin to retrain cravings at the neurological level.

Eat with someone—often. Food shared is food remembered. It slows time. It creates accountability, joy, and emotional nourishment beyond the nutrients themselves.

As foods became progressively more processed, they became more closely associated with abdominal obesity, hypertension, non-alcoholic fatty liver disease, insulin resistance, hyperinsulinemia, elevated triglycerides, low high-density lipoprotein (HDL), type 2 diabetes (T2D), gout, heart disease, stroke, cancer, polycystic ovarian syndrome, and Alzheimer's disease

There is an article that states that "the positive age of death trends in recent decades in combating heart disease, partly the consequence of the decline in smoking, will be reversed. Indeed, this will be the first generation where children die before their parents as a consequence of childhood obesity... It is clear people are overeating in relation to their energy needs, and that the cheapness, availability and heavy marketing of energy-dense foods makes this very easy to do. Coupled with an increasing reliance on snacks and ready-prepared meals, "abundance of choice" makes selecting 'healthy' foods even harder. Healthy eating messages are "drowned out" by the advertising budgets of large food companies."

It's not about picking between healthy or unhealthy, the market is so saturated that we are not able to pick between chips or no chips. We are forced to now pick between these 100s of chip options or these two brands of the same flavor, same thing goes for cakes, ice cream, and candies. With market leaders in the food industry – Coca Cola, and McDonald's, aiming advertisements for unhealthy food options, heavily at children.

Advertising processed foods as "healthy American essential breakfasts" ', which are really not healthy at all. Examples are cereal, pancakes, granola, biscuits, flavored coffee, toast, muffins, or anything with added sugar.

With the current American diet of fast food convenience, it's almost like having dessert for that meal. Even the details on the products are manipulative. Promoting “low fat” food products, which are usually filled with sugars to increase the palatability.

It's not just about your brand recognition, it's business based preference making. We're no longer choosing what we actually want; we're choosing what's been placed in front of us, in every aisle, screen, and ad. The illusion of choice masks a deeper manipulation: processed foods dominate not because they're better—but because they're more profitable, more shelf-stable, and more heavily marketed. Real food has no marketing budget. The food system doesn't just sell products—it sells **habit, desire, and dependence**.

Corporations shape taste, cravings, and even public policy. From funding nutrition research to lobbying food labeling laws, the industry often controls the very information we rely on to make "informed" decisions. Educational campaigns about whole foods are outspent thousands to one by flashy advertising for processed alternatives. We're taught to trust packaging over ingredients, and convenience over cooking. When profit drives the message, public health becomes collateral damage.

The pharmaceutical and corporate food companies do not have an incentive to teach you about nutrition. Pharmaceutical companies don't make money on healthy people, so why would they spend money on research for healthy foods? Why would they care about your health and well being? If you are still unhealthy, then you have to keep going back for more help. All each one of these large companies cares about is their next dollar. Where are they are going to continue to advertise and encourage you to buy? Never forget that in 2020, the pharma industry accounted for 75 percent of the total ad spending on TV.

Nothing advertised has truly ever been a staple in an athletes diet to aid them in their achievements or performance. The secret of dieting is really all about just getting back to the basics. There simply never was a trick.

As you imagine a healthy diet. Think about all the things humans ate before food production became commercialized (psst. Walk around the produce and coolers section at the grocery store). Now, ask yourself, “what do these food manufacturing/prep companies do to our food?”

Your body is made to digest the food itself, and now imagine allowing factories to chemically and mechanically breakdown the food for us. Your body does not know what is eaten when “so called food” enters the system. Now, look at a corn dog, and tell me what the source ingredients are to make this?

We are the matrix designed to complete this digestive circuit of the organic system. Designed by nature, just like any herbivore, carnivore, omnivore, scavenger, or opportunistic forager in the wild. But unlike animals who eat what they're biologically adapted to, we've overridden instinct with industry.

The digestive circuit — built over millennia to recognize textures, fibers, enzymes, and natural chemical cues — is now bombarded with emulsifiers, artificial flavors, binding agents, and restructured proteins. A corn dog isn't food; it's a construction. Batter made of bleached flour and sugar. Meat slurry reshaped and dyed. Oil that's been reused beyond recognition. It's not a meal — it's a product.

And when the body doesn't recognize a product as food, it doesn't metabolize it with precision — it stores, it inflames, it defends. You are not just what you eat. You are what your body can understand from what you eat. And we are now feeding it riddles it was never designed to solve.

In our inherent biological form, we are designed to use our complex systems of enzymes, acids, peristalsis, and metabolism to convert food to energy. However, the food is coming in so fast, with an abundant amount of available energy, and the body can't put it away. Once the calories enter the blood stream, it's a free for all, find a place to go, but we don't have a place for you.

When we eat a large variety of slow digesting foods, our bodies have time to use all of it. It's like the body has systems if we bring in one nutrient at a time. Take care of your body like you're inviting guests in—slowly, kindly, without rush. Let each bite feel welcomed, not hurried, and rushed back out the door. Make time for the moment, clean up the space to make it feel like a warm greeting. Set the table, and let your guests arrive early. Labor of love.

In my opinion, a pancake, pastry, white bread, pasta, and bagels, are almost the same as cookies, cake, and donuts. Foods made with refined white flour have a high glycemic index (GI), which means they can cause a faster and larger spike in blood sugar levels compared to healthy alternatives.

So the main problem with all of the “unhealthy” foods that we consume, is that they get absorbed really fast. So by eating only processed food our body gets more efficient at absorbing more next time all in hopes to bring in more of those micronutrients.

Fat is just a byproduct of the constant searching for the “just enough to stop looking”. Feeling full is not forever, but in terms of right now, satisfied.

As energy becomes more abundant and easier to find. We get lazy, and unmotivated not because we know that food is plentiful, but rather because it costs too much of these micronutrients to keep foraging and hunting for more. When we are not getting the amount we need with the effort we are putting in. Remember the old phrase of “there has got to be a better way”, right, well, you the brain and you the body, are not going to kill yourself burning up every last available nutrient while you happily dance it all away. Not when the returns are scarce, and the body is screaming for help.

You don't need to get more food when you're low energy. You don't need motivation to get up. You need to remember how important this healthy food is. Every next bite of that good shit will make you feel better. If instead you resist consistency, and chase after dopamine again. Your body will start to adapt so you spend less time moving everyday, you'll keep living, especially since food is so plentiful, but you'll start to do less.

Your daily expenditure will decrease so much, that you'll wonder why you don't have the motivation. Bing! It's to match the micro-nutrient availability that keeps re-occurring. You can't (shouldn't) work any harder than that resupply.

Deficiency is a common term for the overuse, and depletion of. For resources to come in the body we've got to... Bing! Eat them.

1. Fruits

- Apples
 - Bananas
 - Oranges
 - Strawberries
 - Raspberries
 - Blackberries
 - Blueberries
 - Grapes
 - Cherries
 - Kiwis
 - Pineapples
 - Mangoes
 - Peaches
 - Plums
 - Avocados
 - Papaya
 - Guava
 - Pomegranates
 - Lemons
 - Cantaloupe
 - Watermelon
 - Dragon fruit
-

2. Vegetables

- Spinach (cooked and raw)
- Broccoli (cooked and raw)
- Kale (cooked and raw)
- Carrots (raw and cooked)
- Brussels sprouts
- Cauliflower
- Asparagus
- Zucchini
- Sweet potatoes (baked or mashed)
- Green beans

- **Cabbage (green and red)**
 - **Tomatoes**
 - **Bell peppers (all colors)**
 - **Cucumbers**
 - **Beets**
 - **Peas (green and snow)**
 - **Onions (yellow, red, and white)**
 - **Garlic**
 - **Leeks**
 - **Radishes**
 - **Squash (summer and winter varieties)**
 - **Chard**
 - **Mustard greens**
 - **Arugula**
-

3. Whole Grains & Starches

- **Brown rice**
- **Oats (rolled, steel-cut, or quick)**
- **Quinoa**
- **Barley**
- **Buckwheat**
- **Farro**
- **Bulgur wheat**
- **Spelt**
- **Millet**
- **Sweet corn**
- **Whole wheat pasta**
- **Whole grain bread**
- **Whole grain crackers**
- **Sweet potatoes (also listed under vegetables)**
- **Potatoes (white, red, purple)**
- **Yams**
- **Polenta**
- **Taro**
- **Amaranth**
- **Rye bread**

- **Sorghum**
-

4. Legumes & Beans

- **Lentils (green, brown, red, yellow)**
 - **Chickpeas (garbanzo beans)**
 - **Black beans**
 - **Kidney beans**
 - **Pinto beans**
 - **Soybeans (edamame)**
 - **Mung beans**
 - **Lima beans**
 - **White beans (cannellini, great northern)**
 - **Black-eyed peas**
 - **Split peas**
 - **Fava beans**
 - **Peas (green, snow, and snap)**
-

5. Nuts & Seeds

- **Almonds**
- **Cashews**
- **Walnuts**
- **Pecans**
- **Brazil nuts**
- **Hazelnuts**
- **Macadamia nuts**
- **Pine nuts**
- **Pumpkin seeds**
- **Chia seeds**
- **Flaxseeds**
- **Hemp seeds**
- **Sunflower seeds**
- **Sesame seeds**
- **Peanuts**

- **Peanut butter (natural, unsweetened)**
-

6. Dairy & Dairy Alternatives

- **Milk (whole, skim, almond, oat, soy, etc.)**
 - **Yogurt (Greek, plain, non-fat, full-fat, plant-based)**
 - **Cheese (cheddar, mozzarella, parmesan, feta, goat cheese)**
 - **Cottage cheese**
 - **Ricotta cheese**
 - **Cream cheese**
 - **Kefir**
 - **Butter**
 - **Ghee**
 - **Non-dairy milk alternatives (almond, soy, oat, coconut, rice)**
 - **Tofu (firm, soft, silken)**
 - **Tempeh**
-

7. Meats, Fish, and Poultry

- **Chicken (breast, thighs, drumsticks)**
- **Turkey (breast, thighs, ground)**
- **Beef (lean cuts, ground)**
- **Pork (chops, loin, tenderloin)**
- **Lamb (loin, chops)**
- **Salmon (wild-caught or farmed)**
- **Tuna (fresh, canned)**
- **Mackerel**
- **Sardines (fresh, canned)**
- **Cod**
- **Halibut**
- **Trout**
- **Tilapia**
- **Swordfish**
- **Shrimp**
- **Scallops**
- **Oysters**

- **Clams**
 - **Squid**
 - **Crab**
 - **Duck**
-

8. Oils & Fats

- **Olive oil (extra virgin)**
 - **Coconut oil**
 - **Avocado oil**
 - **Butter (grass-fed, regular)**
 - **Ghee (clarified butter)**
 - **Canola oil**
 - **Sunflower oil**
 - **Peanut oil**
 - **Sesame oil**
 - **Walnut oil**
 - **Flaxseed oil**
 - **Hemp oil**
 - **Almond oil**
-

9. Herbs & Spices

- **Basil**
- **Oregano**
- **Thyme**
- **Rosemary**
- **Parsley**
- **Cilantro**
- **Mint**
- **Sage**
- **Chives**
- **Dill**
- **Ginger**
- **Turmeric**
- **Garlic**

- **Cumin**
 - **Coriander**
 - **Paprika**
 - **Cayenne pepper**
 - **Black pepper**
 - **Cinnamon**
 - **Nutmeg**
 - **Cloves**
 - **Cardamom**
 - **Allspice**
 - **Tarragon**
 - **Bay leaves**
 - **Fennel seeds**
 - **Chili flakes**
 - **Mustard seeds**
-

10. Beverages

- **Green tea**
 - **Black tea**
 - **Herbal teas (chamomile, peppermint, ginger)**
 - **Coffee (black, espresso, cold brew)**
 - **Fresh fruit juices (orange, apple, carrot, etc.)**
 - **Coconut water**
 - **Infused water (with lemon, mint, cucumber, etc.)**
 - **Smoothies (made from fruits, vegetables, and seeds)**
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11. Sweets & Desserts (in moderation)

- **Dark chocolate (70% or higher cocoa)**
- **Honey (raw, organic)**
- **Maple syrup**
- **Agave syrup**
- **Molasses**
- **Coconut sugar**
- **Granola bars (unsweetened, whole-grain)**

- **Fruit sorbets**
 - **Frozen yogurt**
 - **Fruit compotes**
 - **Homemade fruit-based desserts (like baked apples, baked peaches)**
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12. Miscellaneous

- **Seaweed (nori, wakame, kombu)**
- **Coconut flakes (unsweetened)**
- **Nutritional yeast**
- **Gelatin**
- **Arrowroot powder**
- **Tapioca flour**
- **Cocoa powder (unsweetened)**
- **Carob powder**
- **Almond flour**
- **Chickpea flour**
- **Rice flour**
- **Coconut flour**
- **Tapioca pearls**
- **Collagen peptides**

Micronutrients

- **B6**
- **B12**
- **Folate**
- **Magnesium**
- **Protein**
- **Vitamin D**
- **Potassium**
- **CoEnzyme Q10**
- **Vitamin K2**
- **Vitamin K1 (Phylloquinone)**
- **Flavonoids (Antioxidants)**
- **Glutathione**
- **Molybdenum**
- **Phytosterols**

- **B Vitamins**
- **Vitamin C**
- **Zinc**
- **Vitamin A**
- **Fiber**
- **Probiotics**
- **Magnesium**
- **Iodine**
- **Iron**
- **Collagen**
- **Chromium**
- **Copper**
- **Omega 3 fatty acids**
- **Fat Soluble Vitamins**
- **Phosphorus**
- **Biotin**
- **Selenium**
- **Calcium**
- **Vitamin E (Tocopherols & Tocotrienols)**
- **Choline**
- **Manganese**
- **Sulfur**
- **Chloride**
- **Inositol**
- **Lutein & Zeaxanthin (Carotenoids)**
- **Lycopene (Carotenoid)**
- **Beta-Carotene (Provitamin A carotenoid)**
- **Pantothenic Acid (Vitamin B5)**
- **Niacin (Vitamin B3)**
- **Riboflavin (Vitamin B2)**
- **Thiamine (Vitamin B1)**
- **Boron**
- **Vanadium**
- **Silicon**
- **Strontium**
- **Cobalt**
- **Nitrate**
- **Creatine**
- **Betaine (Trimethylglycine)**

- Carnitine
- Alpha-Lipoic Acid
- Pyrroloquinoline Quinone (PQQ)
- Taurine
- Astaxanthin (Carotenoid)
- Resveratrol (Polyphenol)
- Catechins (Polyphenols)

Brain & Nervous System

- **Omega-3 Fatty Acids (DHA & EPA)**
 - **Proportion:** About **250–500 mg per day** (for general health).
 - **Frequency:** Regular intake, ideally **3–4 times a week** from fatty fish or a daily supplement if needed.
 - This **increases membrane fluidity**, allowing easier insertion of ion channels
 - These structural changes in the membrane **enhance signal transduction** by facilitating the movement of **Na⁺, K⁺, and Ca²⁺** ions across the membrane and improving receptor function. This leads to better **cognitive function** and **neuroplasticity**.
 - Around **360–480 calories** from **salmon** or **140–210 calories** from **chia seeds** per week
 - **220–370 calories** from **mackerel**.
 - **74 calories** from **flaxseeds**.
 - **185 calories** from **walnuts**.
 - **800–1,100 calories** from **canned tuna**
 - **2,100–3,500 calories** from **eggs**.
- **B Vitamins (B6, B12, Folate)**
 - **Proportion:**
 - B6: **1.3–2.0 mg per day**
 - B12: **2.4 mcg per day**
 - Folate: **400 mcg per day**
 - **Frequency:** Daily, can be met with a varied diet of whole grains, eggs, and leafy greens.

- B6 facilitating the transfer of amino groups in **transamination** reactions
- Helping with proton transfer, swapping the amino group between **glutamate** and **alpha-ketoglutarate**.
- **Vitamin B12**, in the form of **methylcobalamin**, is required in the transfer of a **methyl group** (CH_3) from **homocysteine** to **methionine**.
- The **cobalt ion** in B12 interacts with the methyl group.
- This methylation reaction results in the production of **methionine**, which is important for **DNA synthesis**, **protein methylation**, and the synthesis of **SAM (S-adenosylmethionine)**, a key methyl donor in various biochemical pathways.
- Folate is converted to its active form, **tetrahydrofolate (THF)**. **THF carries one-carbon units in the form of methyl (CH_3), for reactions like purine synthesis and DNA synthesis.**
- **B6: About 1,050 calories** from bananas.
- **B12: About 60–90 calories** from salmon.
- **Folate: About 400–560 calories** from cooked spinach.
- **B6: 280–370 calories** from chicken or **1,050 calories** from potatoes.
- **B12: 100 calories** from tuna or **900–1,050 calories** from milk.
- **Folate: 1,200–1,680 calories** from avocados or **660–880 calories** from black beans.

- **Magnesium**

- **Proportion: 310–420 mg per day** (depending on age and gender).
- **Proportion: 310–420 mg per day** or **2,170–2,940 mg/week**.
- **Frequency:** Daily intake from foods like spinach, almonds, or a supplement if needed.
- **Magnesium** acts as a **cofactor** by coordinating with the **phosphate groups** of **ATP** to stabilize the molecule and prevent hydrolysis of ATP's phosphoanhydride bonds
- The **Mg²⁺** ion coordinates with the negatively charged **oxygen atoms** on the **phosphate groups** of ATP, **shielding the negative charges** and preventing the spontaneous breakdown of ATP into **ADP** and **inorganic phosphate**. This increases the **biological half-life** of ATP.

- During energy-consuming reactions, such as muscle contraction or active transport, the breakdown of ATP releases energy necessary for **active transport** and **protein synthesis**.
- **560–760 calories** from spinach.
- **1,600–2,080 calories** from almonds.
- **2,240–3,200 calories** from pumpkin seeds.
- **490–700 calories** from Swiss chard.
- **3,200–4,000 calories** from cashews
-

Hormonal Balance & Endocrine System

- **Iodine**

- **Proportion: 150 mcg per day** or **1,050 mcg/week**.
- **Frequency:** Daily intake through iodized salt, seaweed, dairy, and eggs.
- **Role:** Critical for thyroid function and hormone regulation.

- **Selenium**

- **Proportion: Weekly RDI: 55 mcg/day**, or **385 mcg/week**.
- **Frequency:** Regular intake, often found in nuts (Brazil nuts), seafood, and eggs.
- **Role:** Supports thyroid function and acts as an antioxidant.
- **185 calories** from Brazil nuts.
Turkey (cooked): 3 ounces provides about **35 mcg** and **150 calories**.
- **Cottage cheese:** 1 cup provides about **20 mcg** and **200 calories**.
- **300 calories** from tuna.
- **Sunflower seeds:** 1 ounce provides about **19 mcg** and **160 calories**.
- **Brown rice (cooked):** 1 cup provides about **19 mcg** and **215 calories**.

- **Zinc**

- **Proportion:** 8–11 mg per day or 56–77 mg/week.
- **Frequency:** Daily, from meat, shellfish, seeds, and legumes.
- **Proportion:** 8–11 mg per day.
- **Frequency:** Daily intake through meat, shellfish, seeds, and legumes.
- **Role:** Important for hormonal production and immune function.
- **160 calories** from oysters.
- **3,200–4,000 calories** from pumpkin seeds.
-

8. Skin, Hair & Nails

- **Biotin (Vitamin B7)**

- **Proportion:** 30 mcg per day or 210 mcg/week.
- **Frequency:** Can be obtained from eggs, nuts, and seeds. Regular daily intake supports hair and nail growth.
- **Role:** Supports healthy hair, skin, and nails.
- **1,470 calories** from eggs.
Raspberries: 1 cup provides about **0.6 mcg** and **60 calories**.
- **2,240–2,400 calories** from almonds.
- **Sweet potatoes** (cooked): 1 medium provides about **2.4 mcg** and **110 calories**.
Salmon (cooked): 3 ounces provides about **5 mcg** and **180 calories**.
- **Spinach** (cooked): 1 cup provides about **0.5 mcg** and **40 calories**.
-

- **Vitamin E**

- **Proportion:** 15 mg per day , or 105 mg/week.
- **Frequency:** Regular intake through nuts, seeds, vegetable oils, and leafy greens.

- **Role:** Acts as an antioxidant, protecting skin cells from oxidative stress.
- **2,240 calories** from almonds.
- **120–160 calories** from spinach.
- **Sunflower seeds:** 1 ounce provides about **7.4 mg** and **160 calories**.
- **Hazelnuts:** 1 ounce provides about **4.3 mg** and **180 calories**.
- **Olive oil:** 1 tablespoon provides about **1.9 mg** and **120 calories**.

- **Chromium**

- **Proportion:** **20-35 mcg per day** or **245 mcg/week**.
- **Frequency:** Found in meats, whole grains, and certain vegetables.
- **Role:** Helps with blood sugar regulation and insulin sensitivity.
- **605–660 calories** from broccoli.
- **300–400 calories** from grapes.
- **Potatoes** (with skin, baked): 1 medium provides about **20 mcg** and **150 calories**.

- **Phosphorus**

- **Proportion:** **700 mg per day**. or **4,900 mg/week**.
- **Frequency:** Found in foods like meat, dairy, nuts, and legumes.
- **Role:** Works with calcium to build and maintain bone structure.
- **980–1,120 calories** from chicken breast per week
- **1,540–2,200 calories** from cheese.
- **Salmon** (cooked): 3 ounces provides about **300 mg** and **180 calories**. **Weekly volume:** About **5–7 ounces**, providing **900–1,260 calories** per week.
- **Eggs:** 1 large egg provides about **95 mg** and **70 calories**.

- **Potassium**

- **Proportion: 2,500–3,000 mg per day** (for general heart health).
- **Molecule: Potassium Ions (K^+)**
- **Role:** Potassium ions maintain resting membrane potential in heart and muscle cells, supporting proper electrical conduction and heartbeat regulation.
- **945–1,260 calories** from bananas.
- **600–750 calories** from potatoes
- **10–12 tomatoes (250–300 calories)** per week.
- About **4–5 cups (160–200 calories)** of spinach per week.
- About **3–4 avocados (720–960 calories)** per week.
- **5–7 medium sweet potatoes (550–770 calories)** per week
- **Cantaloupe:** 1 cup provides about **400 mg** and **50 calories**.
- **Beets** (cooked): 1/2 cup provides about **260 mg** and **35 calories**.
- **Yogurt** (plain, low-fat): 1 cup provides about **573 mg** and **150 calories**.

The problem in today's society is that our culture buys and sells everything in bulk. We are afraid that the body is going to put on fat if we buy anything in addition to our purchase habits. There are foods we repurchase consistently, so if we start to buy more random stuff, then more food is going to go to waste. So the first step might be to buy foods in smaller portions.

This food re-focus is not as simple as be more mindful of your plate/ enjoy your food/ be happy/ eat more/ have more energy/ get more motivated/ and recreationally burn more calories. The answer is ...yes... of course whole foods, but look at that list.

Holy smokes, there is a lot of different foods that I've never ever bought. So if it's true that ill have more energy after having a little bit of "all the right types of food", then I'll be shocked to find out I spent this last portion of my life not having much of what's been out there.

Now wait... most modern fruits, vegetables, grains, and even animals have been selectively bred (a form of early genetic engineering through artificial selection) by humans for thousands of years. The majority of foods we consume today are significantly different from their ancestral, wild forms due to human intervention.

Foods Closest to Ancestral Wild Forms (least artificially bred). These items closely resemble their wild ancestors and have changed minimally due to human selection:

Fruits: Blackberries, Raspberries, Blueberries, Cranberries

Vegetables and Herbs: Garlic, Leeks, Onions, Chives, Seaweed

Nuts & Seeds: Brazil nuts, Pecans, Walnuts, Flaxseeds, Pine nuts

Meats, Fish, and Poultry: Wild-caught Salmon, Tuna, Sardines, Mackerel, Cod, Halibut, Trout. **Wild game meats:** (Deer, Turkey, Duck, etc.)

Miscellaneous: Honey, Herbs and spices (such as thyme, rosemary, oregano, sage, dill, mint, cilantro, and basil—all closely resemble their wild ancestors)

Foods Moderately Modified by Human Selection (some selective breeding but not dramatically changed). These foods retain significant resemblance to wild forms but have been moderately altered by humans:

Fruits: Apples (wild apples are smaller, more bitter, but recognizably similar). Grapes (wild grapes smaller, more tart). Cherries (wild cherries smaller, more tart). Plums. Avocados (wild avocados smaller, less flesh). Kiwis (minor selection for size/sweetness). Papaya

Vegetables: Carrots (wild carrots smaller, less sweet, but structurally similar). Asparagus. Beets. Squash (particularly winter squash closely related to wild gourds). Cucumbers (wild cucumbers smaller, bitter)

Legumes & Beans: Lentils. Chickpeas. Black beans, Kidney beans, Pinto beans (wild beans smaller, less digestible)

Nuts & Seeds: Almonds (wild almonds toxic, domesticated for edible variants). Pumpkin seeds (wild gourds seeds were bitter, but structurally similar)

Whole Grains & Starches: Oats (moderate selection for yield). Quinoa, Amaranth, Millet (similar to wild ancestors). Potatoes (wild potatoes toxic, smaller, domesticated significantly but structurally similar)

Foods Extensively Modified by Human Selection (dramatically changed from ancestral forms): These foods bear little resemblance to their wild ancestors and have been heavily bred for specific traits.

Fruits: Bananas (wild bananas full of seeds, minimal flesh). Oranges, Lemons (citrus fruits bred for sweetness and size). Peaches, Nectarines (wild peaches small, sour). Watermelon (wild watermelon bitter, minimal flesh). Pineapples, Mangoes (significantly larger, sweeter due to selection).

Vegetables: Broccoli, Cauliflower, Brussels sprouts, Cabbage, Kale (all extensively bred from wild mustard plant). **Corn (sweet corn)** (from tiny wild teosinte grass). **Tomatoes, Bell peppers** (significantly bred for sweetness and size)

Whole Grains & Starches: Wheat, Rye, Barley, Rice (dramatically selected for high yield). **Sweet potatoes, Yams** (enlarged roots through selection).

Dairy & Dairy Alternatives: Cows, goats, sheep milk and dairy products (animals selectively bred significantly). **Cheeses, yogurt, butter** (highly processed from heavily domesticated animals).

Meats, Fish, and Poultry (domesticated): Chicken, turkey, beef, pork, lamb (dramatically different from their wild ancestors). **Eggs from domesticated hens** (hens bred for high productivity).

Sweets & Desserts, Oils & Fats: Refined sugars, syrups, chocolate (processed heavily from natural sources). **Vegetable oils (canola, sunflower)** (dramatically bred and processed).

In the 1800s, the average American consumed 4 pounds of sugar a year. A little fun fact is that in 2009 this was now up to 57 pounds a day per person per year. The average American's diet is 60% ultra processed food. You can either have the cookie after every meal, or you can have 1 after you do something healthy.

Train your mind for tasks and rewards. Positive reinforcement is the most effective form of training future habits. In order to improve outcomes, you have to be intentional with a rigid rule. Not multiple. Just one.

1. Snack Rewards: Only allow yourself a small dessert (such as a cookie or square of dark chocolate) after you've eaten a serving of vegetables at dinner.

DO NOT make an extensive list of all conditions that must be completed. Maintaining a clear mind is more important than overcomplicating a simple goal. DO NOT try to make a big switch to becoming the “standard healthy”. One goal is enough. Anything more is a push for control and restriction.

Freedom is the tool that has to feel safe. Unless you stay comfortable, the plan fails. Staying on track without getting distracted by the shiny object will always be the hardest part. There is a faster, easier way, and there are chances to quit. Yet, the temptation for power will always overcome speed. A plan to start and fail is a weakness. Don't start if you already plan on taking shortcuts.

Scientists call these foods hyper-palatable because they're designed to deliver a combination that triggers powerful cravings (fat, sodium and sugar).

A historical analysis of food availability and estimated consumption data from 1800 to 2019 revealed a dramatic rise in the intake of processed and ultra-processed foods, increasing from less than 5% to over 60% of the average diet. During this time, consumption significantly increased for refined sugar, white and whole wheat flour, rice, poultry, eggs, vegetable oils, dairy products, polyunsaturated fats (particularly from industrial seed oils), and even fresh vegetables. In contrast, the consumption of saturated fats from traditional animal sources steadily declined, reflecting a major shift in dietary patterns driven by industrialization, agricultural policy, and food manufacturing trends.

Industrialization & Manufacturing has introduced Mass packaging & freshness technologies: In the 1920s, Laura Scudder pioneered wax-paper bag packaging and date labeling, enabling chips to stay fresh longer and be shipped nationally—an early turning point in commercial snack production

potatonewstoday.com+2ars.usda.gov+2fortunebusinessinsights.com+2en.wikipedia.org.

Mechanized production scale-up: Today, the U.S. potato processing industry uses highly automated facilities. Around **22% of the U.S. potato crop**—nearly 7.5 billion pounds annually—is turned into chips, generating over **\$7 billion in consumer spending** ars.usda.gov.

Swelling market value: The U.S. potato chips sector was worth about **\$10 billion in 2022–2023**, and forecasts predict annual growth of **4–5.7%**, potentially reaching \$14–15 billion by 2030 grandviewresearch.com.

Agricultural Policy & Potato Cultivation have been linked to processing demand: Policies and contracts ensure dependable potato supplies are available for high-volume processing—to make chips, fries, and flakes—rather than the secure use for fresh consumption.

Ultra-processed by design: Chips are textbook *ultra-processed* foods—highly engineered with added fats, salts, and flavorings, designed for addictive palatability. Today, such foods make up over **58%** of daily caloric intake in the U.S.

Snack culture & convenience: Busy lifestyles drive strong demand for ready-to-eat snacks. Potato chips are a prime example: no preparation needed, great shelf stability, and massive shelf presence in stores grandviewresearch.com.

Health-tailored diversification: Snack manufacturers bring out baked, low-fat, or alternative-oil chip varieties to align with emerging wellness trends—yet the core issue remains: they're still formulated for hyper-palatable, high-calorie snacking

When you are eating chips, your brain doesn't think that you got enough food. They require the pleasure of chewing and dissolve into such a small size.

Potato chips are *not* just fried potatoes with salt — they are highly engineered flavor experiences. Each chip is coated with a carefully designed **flavor powder** that combines real food extracts, synthetic compounds, fats, acids, and enhancers. Flavor chemistry ensures that every bite hits the same **sweet, salty, savory, and crunchy** sensory targets, every time.

How Flavor Chemistry Research Is Done for Chips

1. Chemical Breakdown (Lab Analysis).

- **Volatile Aroma Compounds** (smell): Identified using **GC-MS** - Ex: Butyric acid (cheesy), methional (baked potato), 2-acetylpyrazine (nutty/roasted)
- **Taste Compounds** (non-volatile): Measured with **HPLC** - Ex: MSG (umami), malic/citric acid (sourness), sugar (sweetness)
- **Lipid Interactions**: Chips are fried in oil, so flavor chemists study how **fat-soluble compounds** behave when coated on an oily surface.

2. Sensory Testing - Trained tasters evaluate

- Top notes (first impression): e.g. onion or cheese
- **Base notes** (lingering): e.g. roasted potato, salt
- **Balance**: Salt vs sour vs sweet vs fat
- **Off-flavors**: bitterness, cardboard (from oxidation)

3. Flavor development & Engineering - Simulating experiences by combining molecules:

- **Cheddar flavor**: Often created using: *Diacetyl* (buttery), *Butyric acid* (funky cheese), *Lactic acid* (tangy), *Yeast extract* (umami depth)
- **BBQ flavor**: *Smoke flavor* from guaiacol or hickory extract, *Molasses notes* using maltol, *Tanginess* from vinegar or malic acid, *Spice* from capsicum or paprika extract

What Is Flavor Made Of?

Flavor = **Taste + Smell + Trigeminal sensations**

- **Taste**: Sweet, sour, salty, bitter, umami — detected by taste buds
- **Smell (Aroma)**: Volatile organic compounds (VOCs) detected by the olfactory system
- **Trigeminal sensations**: Mouthfeel, heat (from chili), coolness (from mint), astringency (from tea)

How Flavor Chemistry Research Is Done

1. Chemical Analysis of Foods - Scientists use tools like:

- **GC-MS (Gas Chromatography–Mass Spectrometry)**: Breaks down a food's aroma compounds and identifies the individual molecules responsible for smell.
- **HPLC (High-Performance Liquid Chromatography)**: Used to separate and analyze non-volatile taste compounds (like amino acids, sugars, bitter compounds).

- **NMR (Nuclear Magnetic Resonance)**
For molecular structure of flavor compounds.

2. Sensory Testing (Human Panels): Even if the chemistry is known, humans have to verify the **perception** of flavor.

- **Trained panels:** Participants are trained to detect subtle notes (like citrus, earthy, metallic).
- **Consumer testing:** Measures acceptability/preferences in the real world.

3. Flavor Synthesis & Modeling: Once key flavor compounds are identified, chemists can:

- **Recreate flavor profiles** in the lab using combinations of natural or artificial compounds.
- **Stabilize flavors** so they survive heat, time, and packaging
- Create "**flavor precursors**" that release aroma only during cooking or chewing

Common Uses of Flavor Chemistry

- Designing **flavorings** for chips, beverages, candy, cereals
- Enhancing or masking certain notes (e.g. reducing bitterness, enhancing umami)
- **Replacing natural flavors** lost during processing (e.g. strawberry flavor after pasteurization)
- Developing **meat substitutes** and "clean label" formulations
- Studying how cooking, storage, and packaging affect flavor over time

Of course they taste amazing, that is undebatable. You are 100% right that processed desserts taste better than whole foods. It's impossible to debate that. Except, a health advocate can argue that those exact same processed foods that taste better, also have less variety of flavor. And generally all taste the same with small variances in the amount of butter, sugar, and artificial flavors to help you perceive the brand's product differently. While whole foods have a richer and more diverse range of flavors, without additives. They naturally taste that way and actually taste like that with their exposed unmasked flavor. Offering complex rich flavors that nourish the body.

Don't you see now that processed foods really are plain. They are designed to be neutral, so that everyone likes them, but what else do they provide rather than a little bit of immediate pleasure.

- **Empty calories**, which fill space but not nutritional needs
- **Metabolic confusion**, spiking blood sugar then crashing it
- **Artificial satiety**, making you feel full for a moment but hungry again soon after
- **Reward without effort**, bypassing the biological satisfaction that comes from chewing, digesting, and absorbing something nourishing
- **Craving loops**, reinforcing habits that lead to more snacking, more grazing, and less true fulfillment

In short, they give your brain a high but leave your body starving for real input.

That's not food. That's entertainment disguised as nourishment.

The problem is the unavoidable addiction hidden in the foods that we eat everyday. There is an addiction that can come from the act of eating. Any sensations in the body that you "learn to enjoy", can lead to cravings.

Once the brain knows that "this is good stuff!" It looks in the future to find more of where it is! So the brain reinforces the behavior by sending reminders (in conscious thought) on how to get more and where to do it. Once that becomes your focus, you'll go out of your way (even in a busy schedule) to get it. We remember the location, the reasoning on why we want it, and convince ourselves how important of a decision this was.

We want the brain to be happy, so we do it again. It finds ways to send more sugar up to the brain, forcing us to eat more. Once we act, and please the brain, we feel good, and we feel "alive", full of energy, RECHARGED, excited, grateful, appreciative, and intense with emotion!

Our brain can only feel energy if there are rushes of energy going down a neuron (action potentials are stronger in deeper rooted neurons). Now over 86 billion neurons and over 100 trillion connections, one of those 86 billion is going to be different than the rest. It's going to take higher priority and have more connections than the rest. THIS one takes initiative. THIS one takes charge. THIS one makes changes happen.

Some neurons can have as many as 10,000 connections. Receiving signals from branching dendrites = all firing in firing in harmony, simultaneously in tune with each other! Among those 86 billion neurons, firing 5-50 signals per second. There is going to be one that stands out among the rest. Your next behavior revolves around the common goal they decided on. That determination results in your time.

You go hours between eating. During that time, a lot of energy is going to get used, so your actions and thoughts have to be in accordance with one another. Actions show biological importance, so therefore high priority thoughts need to be prioritized. Dedication towards a pursuit, starts as a topic in the brain.

The brain makes up only **about 2% of your body weight**, but it uses roughly **20–25% of your total daily energy expenditure**. So it's the most essential organ in the body, that means it wants to do more than just exist, it wants to thrive, and it wants to prosper in abundance.

Clearly it has conscious control of the operating specimen. It's going to support the most efficient methods to bring in "valuables". No matter how convoluted the risk/reward evaluation strategy goes, the opportunities that bring in the most valuable resources are going to be justifiable.

In the context of business (money), living (ATP), the fuel that keeps an organization going, is well sought after, especially in competition amongst its peers. Whoever has the most coming in, can reinvest more back into the same places it's been putting it. Excessive incoming energy indicates that whatever the operating body is doing, needs to keep happening more. Keep reinvesting back into the same thing.

No matter how much money the system has, the idea will always be the same. Preserve energy, seek surplus, and justify every action by what it returns. There will always be a search for more. The more you bring in the closer you are to the feeling of striking gold. So we will therefore amplify the amount we search.

Going after easily accessible food or money is no different from one another. If you reach a cycle of consistently eating junk food, then the continuation of such eating will self propel the issue into excess.

Your appetite for more increases with what you have found. When you strike riches, you earn the right to want more. That's why regular check-ins, status updates, and self review become necessary. To keep efforts in alignment with the mission of the end goal.

Habits are a state of repetitive success that has been acquired. If your goal is not aligned with the habits you're building, then you're going to drift off course, and away from the original goal. Making it harder to fit the persona that aligns with your self-respect.

As fuel becomes the obvious operative, imperative distractions come in and try to take credit for contributing to the success of the plan. These factors are meant only for education purposes, and to track trends for research, not to aid in the day-to-day operations.

During the analysis stage of food choices. Calorie tracking can be utilized, but not intelligently by the user. Progress towards weight loss can for sure be made, but not in a healthy long-term manner. Options however, of food congruence, can be visualized over days and weeks. One aims at the scientific bodily process, which has nothing to do with behavior change. While the other brings attention to personal choices.

A man who tracks not what he eats, but the numerical fuel that his food represents, loses track of what is healthy and what is not. A human that sees food as food, as nothing but food, will see obvious trends in healthy choices vs not.

Appetite, satiety, hunger, and fullness are consistent across both, the objective is to understand how personal behaviors tie in with this interbodily feeling. No matter what you eat, you'll eventually feel full after a meal. What do you give that credit to? Calories? Macros? Volume? Feeling of fullness? Energy replenishment?

Intuitively there are biological feedback control mechanisms, but they connect back to the neurons that we have given meaning to. Food is more than just fuel for energy. It is a reward, with an esoteric self-determination that involves challenging pattern recognition. So we have to set the boundaries and eliminate scenario-based thinking. Our minds rely on this goal-completion mechanism to feel the finalization of a behavior, and until we know what it is (we who have begun to overthink eating), will never be able to repeat it.

Some mind traps i have fallen into in the past:

- Rechecking calorie app throughout the day
- List of options to pick from at each meal
- Foods to "Eat at least once a day"
- Setting times of the day to eat
- List of things to do everyday

Now what i think is more solvable:

- Everything i eat, must require effort in putting together. Im not giving myself permission to eat quick wrapper snacks from the fridge. Everything i eat needs to be thought out. No matter how Macro friendly it is. Make it with love. Not from a package.
- Not necessarily cooked, but tried as a healthy change to the monotony

As you can see, i used to overthink it. I wanted the situation to be perfect when i finished eating, so i could confidently connect the dots, that OK now this was the perfect time to stop eating. I've tried to adapt my definition of healthy to a "new found freedom", untied from any restrictions i may have placed on myself before.

Processed carbs are no longer eliminated, but built in, as a, well if I thought of putting that together myself, I can have it. Food deserves to be enjoyed, not because it leads towards our goals, but because we are making positive mental choices. Healthy choices. Healthy choices. Healthy choices. Healthy choices. Healthy choices. Healthy choices. Healthy choices. Letting that motto guide life, with no actual definitive examples on what must be present to “fit in” to this so-called healthy proclivity.

Examples of what i now try to avoid:

- Reaching for my regular restocked items in the fridge
- Thinking about going to the fridge just because im hungry

Examples of new ideas I've now included:

- Taking it a couple steps further, than i originally would
- As long as it's a healthy behavior, you can do it

That little bit of effort is all you need. Healthy alternatives to the neurons that you already use so heavily. Reliance is a hidden form of addictive behaviors. Constantly returning to a favorite food is a form of personal neglect because running on autopilot leads to post meal regret. Wishing you could have used that space for something new. Our bodies crave variety, and nuance. Food is an easy necessity to mix up.

We all keep dozens of stored nutrients on hand, and if you don't the grocery store will always have something new to try. The trick is to avoid overbuying and getting overly excited by all the new things available, once you start looking for them. It's easy to get overwhelmed, and bring back too much. In which case, it could lead to overeating (me), or wasted food.

You have to remember that the more freedom you allow, the more creativity you will see. There are so many alternative combinations. Taking the extra time to cut up a potato, avocado, tomato, and pour a little dressing over a meat and cheese bowl can make the meal that much more fulfilling afterwards.

Adding another ingredient to a meal you're making just shows that you care about the choices you're making. Having that freedom to be creative, just because you want to can BRIGHTEN up your day. Healthy habits just give you something to feel good about.

That feeling of euphoria is happiness, and it comes from neural excitability! The more neurons that are activated, the stronger the connection is to past experiences of **positive reinforcement**. When a flood of electrical activity moves through the brain, it spreads toward the **most frequently used pathways**. This isn't random—it's strategic. The brain gives **extra energy and attention** to the circuits that have proven to be the **most useful and rewarding in the past**.

So when you go to pick out a meal (pretend you're hungry). What has your brain learned to expect. **What foods excite your neurons now?** What *foods feel worth getting up for?* This is not appetite driven, it's personal to YOU. It's shaped by **what has worked before**, for you. These *foods* make you put in the effort to get up to eat. This is why we often repeat things without knowing why—it's not just habit, it's the brain's reward and survival system.

This is how the brain works. It favors efficiency, not growth. Familiarity is its shortcut. You don't need to resist that. You don't have to "be better.". You just have to **move one step beyond it, and go one step deeper**. Every time you take **one conscious breath** before reacting—every time you reach for the fork instead of the wrapper—you disrupt the loop. The loop doesn't break—you just learn to steer it.

Before you act, ask: "Is this the outcome I want, or just the one I already know how to reach?" Because when you pick up the same snack, the same meal, the same thought pattern—what you're really doing is **reliving a memory**, not making a decision.

You don't need some big solution. Cut something up. Stir something in. Build it by hand. Take the extra 5 minutes to prep the dish. If you're like me, you'll think that your hunger is an urgent need that has to be satisfied now. That split second decision is the difference between a snack that fills me up before a meal, vs waiting a couple minutes to ensure that all my calories come from a whole meal.

We all become desensitized to how weak our willpower is becoming. The tolerance to pain becomes lower the less you have to experience it. If you never give yourself the chance to get hungry, then you'll let simple bad habits sneak in. Relentless fridge checking, is like the petty details you obsess over. Obviously it's probably time to get some stuff out, and make a meal.

But hunger doesn't just feel like an absence—it feels like a setback. Not just zero, but below zero. And now you're not just trying to feel satisfied—you're trying to **catch up** to where you should have been. You're trying to outrun the discomfort, and regain the energy you had. That's when we reach for the quickest thing, because it promises to bring us back to neutral *fast*.

What if even that "neutralization of pain" isn't real? Imagine it was a guided trick to engage you in behaviors circuits that completed the same neural pathway that was already there. Rebuilding the habit stronger and stronger every time you fell for it

We act like euphoria is a prize—something we earned, something we deserve, even when we did nothing special. Dopamine is nothing more than a false promise for something more, that keeps leading us back to the same place we were last tried to avoid. Comfort is the final destination, but knowing that it's a place we've already been, diminishes the thrill.

Like a dog going through training, there has to be a behavior worth learning to get a treat. Acting normal and doing basic things doesn't usually earn a reward—**unless** the system starts rewarding for nothing. When that happens—when rules fall out of compliance, and praise is handed out for minimal or effortless actions—**the value of the reward diminishes**. The dog learns to expect something for nothing. Begging replaces learning. Effort becomes optional. Over time, the once-sharp edge of motivation dulls. The challenge fades. The reward system breaks. What was once **a tool for growth** becomes **a cycle of entitlement**.

In proper training (animal or human), rewards are tools. They're not the point. They're meant to highlight a specific behavior, reinforce that behavior so it becomes more frequent, and shape future behavior in alignment with a goal, but if rewards are given **too easily**, or for doing **nothing challenging**, that entire system breaks.

When we reward dogs just for “being cute” or existing near us, they may become demanding. They lose interest in *working for* the reward. It’s the same with humans. If someone is always praised without effort, they start expecting it. They stop striving for progress. The brain rewires itself to chase **ease** over **growth**. This is how **entitlement** forms—not from bad intent, but from broken reward logic.

Think about it, if a dog sits after 10 commands and still gets the treat, it’s not learning discipline—it’s learning to delay. If you always get dopamine from **easy habits** (junk food, scrolling, sugar), your brain will **prefer shortcuts** over depth. Eventually, the brain gets full off of the illusion of success... without ever earning it.

To Regain Control of the Reward Loop, stop rewarding the undesired behavior. Remove or delay the reward that’s become too easy. Just like a dog that’s been rewarded for nothing that now begs constantly — **you must stop reinforcing the beg**. Example: If you’ve been giving yourself food every time you’re bored, *pause*. Wait until you’ve done something meaningful or waited for real hunger.

Reintroduce effort before reward. Require something new before the reward is “earned.” This could mean, cooking instead of grabbing a packaged snack. The reward doesn’t disappear — **but now there’s a ritual, reflection, or decision made beforehand.**

Reshape the type of reward. Sometimes the old reward isn’t even pleasurable anymore — it just became habit. Replace it with something **more meaningful**. Instead of chips: build a bowl with flavor + texture.

Introduce a period of “reset” (with intent). This is where **you, as the authority**, set a **time-bound removal**. “I’m not going to let myself indulge in [x] for the next 3 days. Not as punishment — just as a reset.” This isn’t restriction out of shame. It’s **resetting the scale** so that future rewards *feel* rewarding again.

Reward differently — not more, but better. Instead of: “I deserve a treat.” Try: “I want to feel proud of this choice.” Start rewarding yourself emotionally — with satisfaction, creativity, pride, presence — not just chemically. The key is **removing entitlement** and **reintroducing purpose**. We don’t respect what comes too easily, but we deeply internalize the effort we put into choosing.

Choosing to work hard for something is always personal, whether it be values, goals, or beliefs, our expectations are that if we worked for it, we deserve to be recognized.

So how do we teach someone else?

Teach someone the loss of appreciation if you have it anytime you want. Expectations become requirements or privilege. Reminding them that you can only have the reward when you do something special.

Discipline is teaching the brain how to work hard regardless to your surroundings. No matter how hard anyone else works, or how hard the situation is, knowing how to work through the pain without an expectation of a reward.

While everyone else is expecting motivation to come first, you accept the challenge by giving yourself an internal reason. Then you go after the problem, by looking for clues to the first step that leads to the next.

Having a good mindset just requires positivity. It doesn't mean that you have to stand out and make better choices than everyone else, you don't have to make every choice for yourself, and you don't have to work extra hard just to make yourself feel proud.

Teaching yourself to reframe activities in a comfortable place of mind, saying whatever needs to be said to follow along with the herd that you want to be associated with. Following the guidance of the activities that make you feel the fitting.

The difference between someone who works hard forever, and someone who doesn't comes from the same two people. One that says "I'm not going to work that hard until i make it to where i want to go", and another that says "i've got to work hard in everything to get myself out of this situation, otherwise ill never get where i want to go".

Those of us who show signs of weakness want guidance, advice, and insight, even at the expense of working. Instead of focusing in the moment, and on the task at hand. Thinking about who to ask, and what to do, outweigh all possible work that could be in front of us.

In no way is my situation, as good as it possibly can be... while the real answer should be instilling healthy habits going to solve the issue of finding what i want.

Nothing comes without commitment to a specific kind of work. No matter how much you want it or care, if you dont commit and fully invest yourself, you'll never become worthy. Confidence is much more broad than a pure social issue. It is wide spread among career, athletics, conversation, looks, vocabulary, and personal ambitions.

Thinking the answer to your problems has anything to do with food is incorrect. To be honest i wish i would have known that sooner because it would have saved a lot of time I wasted on things that didnt help me at all with where i ended up today.

What we all need is help figuring out what our problems really are, and what the goals should be that will help us get through those.

No better way to guide them than instilling healthy habits and mindfulness in the home. You can't always control what happens, but you can instill a mindset that allows someone to make smart decisions on their own

we bribe kids to behave by rewarding them with television and sugar. Something so simple, yet so ineffective.

Then we wonder why they have these bad habits when they get older. HINT: they were rewarded to behave. Not to step up and excel. So the norm becomes bad behavior that is believed to earn quick appreciation as soon as they behave. Yet, the real world expects good behavior all the time, with an expectation to strive above average. With a punishment and avoidance towards misbehaving. Resulting in punishment for behavior that is the everyday normal. Leading to disrespect, and personal dislike

Sugar is considered addicting because it is so rewarding. As a parent, you train children to enjoy these sweets by treating desserts as if it is a reward for behavior. Its like we reinforce that television and sugar as being a good thing because they provide pleasure and dopamine only when a specific behavior shows up. Kids behave, and they get rewarded, fine. Kids get dopamine and leave you alone, and get rewarded. They rely on the distraction for dopamine, because it leads to more dopamine.

However, some kids are ruthless, and they misbehave, and they get television taken away. Reinforcing TV as the ultimate reward. Not teaching kids how to keep themselves occupied, but to be shown by others how to be. Keeping yourself busy and entertained is a skill. It involved creative coping skills for even the simple feeling of boredom.

Teaching kids how to chase instant pleasure and instant satisfaction is not overall long term healthy, but it does make them leave you alone after a long day

What we should be doing is creating an environment where TV and sugar are associated with “hard work”. Deserved only after a long hard working day of focus

Anytime your kid is watching TV make sure you use that time as your relaxation pleasure too.

Dont try to make them pick between tv and you. Joining you outside, and inviting them to come along should feel like a “we do everything together moment”. Team bonding almost, we do something easy first together, then we make fun stories by

We should not associate sugar with regret either, a bad day does not mean rewards. Having a meaningful resolution is the reward. Letting someone reflect in a miserable feeling, builds the emotions guilt, shame, and embarrassment, making them even more avoidable.

Without congruent planned action, we appear unconcerned, unsure of the most effective recourse of action. This encourages kids to overeat multiple times because of an overwhelming feeling of indifference, called “WHO CARES.”

We need to know what is actually wrong with these undesirable activities, so that we can actually describe and teach kids how they impact others, and how that makes them look to others. Nobody acts in a way that is in alignment with who they want to become. We all have a bigger picture of our desired reputation, and we set goals based on that. kids need to hear the facts, and not just be told “NO”, or “Don’t do that because I don't want you to”. HINT: this works forever... we are all still just kids.

An example: why do I have to brush my teeth before bed? Sugar left on your teeth when you go to bed, feeds the bacteria in the mouth, that break down sugars to create acid, that demineralizes the hard tissues of the teeth, and therefore create soft spots for cavities to form.

Encouraging kids to brush their teeth, and letting them see you brushing yours, reinforces the believability of this behavior, and encourages healthy habits similar that they see you doing.

The consequences need to be clear, and intelligent. Demonstrating that the authority has beneficial knowledge, and is not worth being ignored.

Another interesting dental fact is that by giving babies and growing children harder food that they have to chew, they will grow up to have less dental problems a shaped face, and increased size of the prefrontal cortex, all because they weren’t eating processed, mushy, delicate food. Another good example of making decisions for your kids so that they get started off with the most beneficial foods for their growth and development.

You don’t need to tell kids that over-consumption of junk food leads to a high chance of obesity. When you teach the tools, it helps your kids realize that some people eat more junk food than others, and it's not simply genetics.

Those same kids who had addictions to junk food will grow up to become adults with the same habits. The same cravings never leave. We have all seen the consequences, yet we are still all kids on the inside that want our sweets, Depending on how we reward ourselves determines how much we eat it. As we move out and gain the freewill to buy our own groceries, nobody is here to tell us to stop, or watch how much is missing.

On top of all of that, many of us are raised not to waste food, and taught to finish our plate. Getting rewarded with dessert after we are full, reinforcing the idea the food is valuable, listening to your appetite, figure that out yourself. Have you ever been told to pick smaller portions... yeah, well do that.

I don't like that advice, because personally, I don't know how hungry I was until I'm almost done with my meal. Hungry is just hungry, there usually isn't a difference in the feeling. The only way I might be able to tell would be counting out how many hours ago my last meal was, or memorizing the exact volume of food i can normally swallow in one sitting.

What is your true motivation to lose weight

Just be confident without the struggle

Why does their opinion even matter

You wont automatically become confident as soon as you lose weight.

You might see yourself as more approachable, but that still won't change how many people you interact with.

You still have to choose to be different, by being goofy, playful, active, and confident.

Sitting on the side, reminding yourself "why" you are not getting involved isn't going to help. You have to be the one that is motivated to step in and participate, and with that experience and participation, you will feel more comfortable pitching in.

We strive for weight loss, fitness, career success, and more income before we gain confidence, but that's the end goal for every single one of us. We want to fit in, stand out, and be appreciated.

You cannot achieve these career goals, relationship goals, fitness goals, and monetary goals overnight,

Eventually our goal of losing weight and quitting junk food will come as a result of this mindset switch, but confidence in ourselves truly has to come first

Accept where your body is at. Then, go to work from there.

and recognize the inherent worth embedded in your individuality.

the ultimate goal of becoming a better version of yourself. Not to switch it all up, and try to start over. It's not easier that way either.

The results become addicting once you get started and make progress. Now, it's getting to that point of unavoidable mental commitment, that determines how fast it all comes along.

the path to achieve these goals will become more clear when you commit first.

Its like you accept the mindset, and start focusing on facts rather than the emotional barriers you put in your own way.

That's why its so important to let go... even though its scary

You don't want to go in the opposite direction, and find out you tried so hard to fight for a goal that was simply different than what you wanted

We, by not committing fully, are indirectly hiding from shame and remorse. So stop using your theological goals to compare the weight behind how your goals will show up in your choices. Addressing your fears is beyond the purpose anymore. Your brain will not let you forget those goals that established your identity in “who you are”, so stop claiming that you’re trying to fulfill what matters most to you, and just let reality naturally happen.

You are allowing willpower to fight you on the simplest things rather than letting intuition automatically decide for you. The time will come, it doesn’t have to be at the forefront of your mind. You don’t have to be pre-rehearsing for a long time to convince yourself that this will help you make the right choice. When you do so much thinking for so many years, now you think your ideas are set in stone. Yet, unavoidably the situation turns, and all the time you spent stressing, caused anxiety, jeopardizing your quality of life all that time, led up to a simple answer that was as clear as it could have ever been set up to be.

Having confidence, ethics, morals, standards, and expectations doesn’t change the outcome of how these situations turn out to be. Nothing is going to change for the good or the bad of how we practiced. Just like we get pleasure, we create our own meaning behind what happens, and this gives rise to fulfillment that is personally satisfying.

So don’t worry about not making it right, or working hard to make sure that nobody has to worry, because once you let go of purposely trying, the wheel driver will just maintain a routine, while your mind directs itself in a direction of attention to that more important task.

No matter how much you notice your efforts affect how you spend time doing what you want. The internal debate you have with yourself does not make the action you take any less difficult. Whether or not it’s worth doing, the more specific of an action you decide on, the less likely it is to happen.

It’s a part of what we call decision fatigue, which leads us down a specific rabbit hole, of lost motivation to work now, in hopes to go on a harder run later on, when taking healthy bites, and working healthy amounts at work and at home, keep the wheels spinning just enough to give you time to think, about what could be different, and just as you think you have a grasp on what’s going to happen, the situation just gets a little bit more tricky.

Willpower is tricky, we can eliminate willpower from entering into the equation

Don’t let the rain of what you think about in your daily life, affect the sparkle of how confident you are

If you’re a better person because you give yourself permission to eat one thing over another, then don’t let any health nut rain on your parade.

Just keep doing what you are already doing, and don’t let the idea of doing anything better steer you away from where you are already at. There is nothing better than where you are already at.

Whatever gets you up and keeps you moving is enough for me to say that's healthy.

If what you are doing now works for you. Then, something pretty big better come into your life, before you need to make a change. Something someone said should not be enough, something you saw should not be enough, but now, something that happened to you, I'll give you permission to change if something that dire happened.

If you are in dire need of making a change, something will come into your life to direct that, but you can not set the plan. Your thoughts are not powerful enough to control the course.

by eliminating the time allowance for it to occur. If your life is already set up with lots of healthy habits, and goals, why do you need to think it through. Just do what you know is the right thing to do, and then go for it.

The same thing applies to routines, healthy habits, confidence, and motivation. When you have an impulse to do the right thing, go for it. If you benefit from it, that's even better. If it reinforces more healthy behavior in the future, then go for it.

Life is easy when you stop overthink and let go. Things just start to happen in order and in line with your goals, when you let go, make intuitive healthy decisions and stop letting carelessness influence your decisions by encouraging more searching.

It's similar to a trip to the store, if you simply head to the healthy food section and make your purchase, you'll avoid picking up sugary snacks altogether. However, the challenge arises when you persuade yourself to wander through the aisles. Now, the influence of advertising takes hold, tempting you to make impulse purchases.

Having confidence and knowledge to make the right decision, allows you to ignore those challenges of willpower because you aren't being placed in a difficult situation. We all know willpower is weak, it's the nature of the human mind. Advertisements have exploited that, and there is no choice. You get taken ahold of the psychology of persuasion. You get forced into bad habits because you put yourself in the situation.

There is a way to avoid it, and that's by doing what you need to do, and then leaving, and moving on. It's smart to make intuitive healthy decisions, just keep making decision fast before you get caught up in the temptation that leads to regret.

Isn't it ironic that we have a lot more regret when we overthink because we start thinking about how we were persuaded to do something we didn't want to do? We spent so much time overthinking just so that we wouldn't make mistakes and regret them later, but it turns out we actually feel more regret when we overthink decisions rather than making them impulsively and intuitively because at least then we get what we really want based on our authenticity.

It's just absolutely counterintuitive, that our biggest fears of not being included, and having regrets were actually caused by shyness and overthinking. Many of us spent years being shy, reserved, and quiet, so that we never had any feeling of regret. When we actually ended up with more regret than what we would have from just being ourselves and being confident, playful, and childish. At least then we would have gotten to make decisions that we wanted to.

Isn't it ironic that the number one thing that we were afraid of all along, being the whole goal of being shy was so that we could avoid mistakes, judgement, and regret.

Except there's irony in realizing that overthinking actually led to more regret than confidence would have. We start to see how counterintuitive our actions were when we look back and remember the regret we got when we were overthinking, worrying about what we wanted to say or do.

Shy people often regret, staying indoors, not socializing, eating food for pleasure, not expressing their opinions, declining social invitations, refraining from taking risks, not pursuing opportunities, hesitating to make new friends, avoiding eye contact, suppressing their creativity, resisting change, holding back compliments, fearing rejection, avoiding confrontation, not asserting themselves, neglecting self-promotion, downplaying achievements, avoiding leadership roles, being overly self-critical, fearing judgment, hesitating to ask for help, not participating in group activities, staying in their comfort zones, downplaying talents, being overly cautious, suppressing emotions, avoiding compliments, fearing failure, not pursuing passions, hesitating to share ideas, being overly apologetic, hesitating to voice concerns, avoiding social events, suppressing assertiveness, fearing criticism, hesitating to take the spotlight, and neglecting personal development.

This clearly affects other areas of life, especially around health, and well-being. That's why it's so important to focus on confidence, before we chase our worldly desires.

When you obsess over the appearance of your body, you diminish your overall quality of life. When you focus solely on improving these physical characteristics, as you strive for an idealized self-image, the more stress and anxiety you will introduce into your life. It's a never-ending cycle and relentless pursuit towards an unattainable praised self-image. By comparing yourself, you almost have to start feeling inadequate, because someone will always have something that you don't. Comparison is like realizing that you will never be enough. Shyness and insecurities can only stem from this. Self-criticism stems from comparing yourself rather than simply appreciating who you are and being grateful for everything you have.

Shyness is what we are trying to avoid. We do that by eliminating self-comparison, and by only paying attention to the features we love about ourselves. We secretly admire our smile, eyes, hair, and body, whether its true or not, we believe they are perfect, and should stay unchanged.

We can still have these physical goals to chase, but they are a future version of ourselves. We are happy with the way we are today, because we can't change it. So, we might as well find the characteristics we like, and boost our own confidence.

Our goal is to reach a day where we could act intuitively without hesitation. That day will come when we are no embarrassed of who we are, and we start to be proud of the way we look.

Isn't that exactly what we wanted all these years? To reach a mindset that loved ourself, backed up by tangible characteristics that others could see too?

Its all a part of the mindset change. The way you think is a part of the self-fulfilling prophecy of the way other people see you too. You see exactly what you want to believe.

Being confident, intuitive, and authentic is not going to change the way you treat people. The only thing that will is how often you talk, along with your playful word choice, and your tone of voice, and the way people respond to that.

The topics will continue to be sporadic, but you will be more enthusiastic and more attentive on the inside, because you are more focused on the subject being discussed rather than your insecurities.

This is a natural byproduct of self-acceptance, and self-discipline. You will receive a better quality of life when you believe you have a higher perceived value. People treat you based on what you allow. So if you want people to talk to you more. Don't just pretend to be confident, but actually believe it and start talking more. Then, watch how others respond and keep it going.

The hardest part is making the transition after being shy for so long and believing you have a reputation to uphold. Instead, consider how, after spending so much time with this group, you've finally felt comfortable enough to start being involved.

You have to force yourself to be confidence, because it comes from within your own head. The positive feedback from others on how they want you to talk more, is not going to be the one thing that makes you happy, its never going to come. Eventually, you just start acting different, then you get treated different, and then one day, you notice that you don't really care about their opinion. You just want to participate, and make comments when you want to say them, and it feels like this is the way you have always been because it happened so gradually.

If you are shy, there are probably some other areas in your life that you are not satisfied with, and you just haven't looked hard enough to find them. Ranging from social acceptance, to sleep quality, nutrition, exercise, to personal accomplishments.

Your weight is a small contributing factor, but there is one thing that you can change overnight, and that is literally to just be confident. Its not "trying", but actually BEING confident. There is no "what ifs" anymore. You just can't even ask yourself that question. So seriously forget about the consequences, you have spent your whole life thinking about them, I think by now you know the right and wrong things to do. You aren't going to mess up THAT bad.

So just let go of trying to “think it through”, because your intuitive choice is always well-suited, and authentic to your true self. That’s because intuition is really part of the secret to a stress-free happy life. It allows you to not only feel genuine and sincere, but is also applicable to daily conversation, eating, decision-making, relationships, problem-solving, and creativity.

Intuition is directly related to confidence, because it is perceived as doing exactly what YOU want to “do and say”, because it was done at the perfect timing. IMMEDIATELY and unthought-through. The action of intuition shows expertise, knowledge, and confidence, so that even if you did mess up, you made it funny. You did it on accident, while being yourself, so we praise you for that. You showed us your personality, and true self, and that gives us the confidence to trust you, and feel comfortable being ourselves around you too.

That’s the whole goal, of each one of us. To reach a state where we don’t have to take life seriously. We get to tie spontaneity in with enjoying every second of life, knowing that we can have an open mind and feel comfortable being transparent about our thoughts and feelings.

As a result, we feel good and full of energy! We appear good, live longer, and boost our sense of well-being. It's like having good luck because these things happen naturally since our habits are already in place and we know all of our decisions are healthy decisions, leading to healthy habits when we just let go, and go with the flow.

It's possible for us to give into our intuition because our habits are stuck in our instinctive, deep-seated mind. We have practiced these habits for so long, they become second nature, and they keep reinforcing other positive behaviors and actions that make us feel good about ourselves.

We become more confident as a result, from not only the positive habits reinforcing more positive habits, but also from being more intuitive. Knowing that we can be our authentic selves, never having to second guess our actions, because of the possible consequences that might occur. We don’t even have to overthink anymore to get the right outcome. It just happens because we have been doing the “right” thing for so many years.

We, in return, get every positive benefit of health, longevity, social acceptance, and self-control, associated with confidence, and intuition as a result of our disciplined eating behaviors. Which translated to every other healthy habit and life, and because of that, we were able to finally let go, and have fun being our authentic self.

Eventually you are going to give into intuition either from laziness or failures, because trying to control the outcome of every situation your entire life just isn’t going to work. You have already put in all the work you need to. You have the knowledge. You know the right thing to do. All you have to do is stop overthinking, and just enjoy life.

Your idea of the goal you want in order to be happy IS unrealistic. The shredded body you want is not healthy. The billion dollars you want is not happening. The job you want being CEO of Coca Cola is not happening any time soon. You have to wait. There is no way around it. It truly is a patience game, and when the time comes you may not even want the same things. So just realize that some of your goals are so far out, they will only ever just be fantasies. They won't ever come to fruition, you can enjoy the process of getting closer, but happiness lies in who you are today.

So many multimillionaires and corporate CEO's didn't get where they were because they dreamed of it. They didn't have a vision board of reaching that someday. They often just got "ended up there" after putting in the work. There was an interest and a passion, but a lot more mystery went into it. People often just "end up" where they are.

It's not exactly luck, but they are grateful for where they are at, and it was unplanned. Yet, they never pushed it. To enjoy healthy growth and progress, you have to master what you have, and slightly step out of your comfort zone. It's the same for career advancement, and fitness goals. People will only help you succeed, mentally, and give your praise, confidence, and recognition, if you are nice, calm, respectful, and enjoy the process, but nobody wants to congratulate you and show you appreciation if you are miserable.

So the truth is, that even though you can get faster progress by counting calories (checking boxes), and being a workaholic, the progress is going to be exhausting, boring, and cause burnout. People will see you as a hard worker from the outside, but anyone who knows you closely is going to see the stress, unhappiness, and discomfort behind the scenes.

There are true benefits in enjoying the journey, and loving life where you are at. That includes loving your personality, body, facial features, job, physical capabilities, and situation. That's all you have right now, so you might as well enjoy it while you're there.

There is a lot of regret in trying to rush the process, and nobody ever stops at good enough. Every person just wants to reach that point so that they can flaunt what they have, but it seems like everyone's goal is to be shredded, yet there is nothing healthy about it.

Most people just try to get their attention from looks alone, but what other qualities do they offer? Knowledge, advice, kindness, empathy, or humor? Do the people you look up to offer a genuine connection of invaluable qualities? Or is it a one-sided relationship? Is that really someone you want to be like?

Social media can give you somewhat of an unrealistic idea of what you have to look like to receive attention. It can turn into an addiction to try and reach that status. Making you feel like you either have to be skinny or shredded to fit in, and that you have to conform to this identity in order to get attention or be popular. If only you could ever achieve that skinny look, you could be like all the other happy people.

Popular people are often associated with positive attributes, as if everything they have in their life is amazing. We give them credit for an unrealistic lifestyle that they are most likely not even living. So stop comparing ourselves to others online, and having an unrealistic expectations of what you want your life to be like.

Those goals you want to achieve usually lead to the opposite of what you imagine a true quality of life would be like.

It's normal to come up with your own assumption, but you as a result often feel ignored, overlooked, and undervalued because you are comparing yourself to social media influencers.

We all do it, but that doesn't mean our assumptions are true. 99.9% of people are not living the perfect life that you imagine. Every single one of us sets an unrealistic expectation of what life is supposed to be like when we are happy, relaxed, and having fun. We believe that once we achieve xyz, we are going to have this much dopamine 24/7, having this many friends, parties, cars, and relaxation. Yet, none of its possible.

We become accustomed to whatever we have, and we will always want more. Life is full of never-ending pursuits. You can always get one more dollar, you can always lose one more pound, you can always gain another pound of muscle. It never ends.

I personally got trapped in the mindset of thinking I had a stronger willpower than anyone else. I saw that I could outwork the people who failed at weight loss, and I was going to prove to myself that I could make the fat come off fast. I imagined that something magical would happen, and all my insecurities, and flaws would disappear. I thought I would be extremely happy, and full of energy, playing games, being goofy, full of laughter, yet I really turned into the opposite of that. I had just became a more dull person in a small frame of a body.

There are times that everyone will just simply think you are skinny and weak until you take your shirt off and then they might be impressed, but how often do we take off our shirt in front of others? Not very often.

The rest of your life will not benefit from having abs, and you may actually look back and regret how poor your mental health has become.

As soon as you experience this shredded lifestyle, you will start to see that it isn't as glorious as it seems to be.

When you get around 5% body fat and lower, life just becomes different. You start having to fight through each day and put extra attention on the simplest tasks. Like meal prepping is a not only divvying out food, but instead making sure all your food is counted down to the gram. Then preparing what your whole day looks like, hour by hour, so you have full control over where you'll be and what time you'll get to eat. That way you know how you have to space out your meals to have enough energy throughout the day without going crazy.

Understanding how to plan food around any physical activity, so that you can have enough energy to workout at all, and give your mind a chance to mentally prepare.

Your body knows that we need to avoid hard work, so you start to dread anything that takes effort. Your body is just trying to conserve energy, so anytime you have to do something energy intensive, like taking the stairs, your mind is talking to you like “not again, you know this sucks”.

When you get really lean, the main problem is that your metabolism slows down, taking away all of your motivation, making you a lazy person, and decreasing your productivity. The reason is because you are usually low on carbs. While at the same time just thinking about yourself, and how you are going to get food later.

You don't want to have to think about dieting all day. It affects how well your brain works, and how quickly it can think. Causing you to have a short temper.

This happens when you haven't eaten for a while, and your body's glucose levels drop. Since glucose is the primary energy source for the brain. As those glucose levels decline, the brain receives signals to release stress hormones such as cortisol and adrenaline. These stress hormones caused by fatigue, dehydration, stimulants, fear, and other emotions can affect mood, and lead to feelings of irritability, anxiety, or frustration. The brain relies on a stable supply of glucose for optimal functioning, so when this supply is disrupted due to hunger, it can impact emotional regulation. We see this as a physiological result when our body is below threshold, so our system starts compensating, by initiating our desires and urges to get us back to baseline as quick as possible.

This process occurs in the brain and places significant demands on which neurons need the most attention. Those divert your attention to completing those tasks because not only will that make you happy again, but it will also take away the constant stress and pressure being placed on those systems. Its like you can not move on until this job is complete. As if your hunger takes priority over everything else.

Thinking about food all day not only affects your productivity, but also your personality. Influencing every decision you make to give you the fastest results, regardless of what you are dealing with. Causing you to become inconsiderate of others obligations and personal desires, as you put yourself above all others.

This is egotism, and takes away from your quality of life. Even though you feel in charge, you are also being demanding, selfish, and impolite, causing impatience, as you prioritize yourself over others.

You start to brainwash yourself to believe that you can sustain this mindset is okay. Its perceived as confidence, because you just don't care about anyone but yourself. In reality, you are just trying to go deal with your own problems, and avoid talking about anything that you don't want to.

You know that you like the positive attention you may be getting from the attitude you give off around, but you are just miserable where you are at. Yet, you keep convincing yourself that this is a physical condition that you want to stay forever.

Being super lean is just not a physical condition your body likes to be in, and it does everything it can to try and put weight back on. It's a real fight to try and keep that look for long. The problem with the idea of maintaining sub 10% body fat, is that is a stage of moderate starvation, causing system stress on the body, potentially decreasing longevity.

I personally believe that the best quality of life would be between 10-15 % body fat. Giving you confidence without being limited to a strict routine. That way you can have definition, size, and growth, without staying stagnant.

It just almost seems impossible to grow muscle below 10% body fat. You can do it, but the progress is extremely slow, and causes a lot of anxiety. The goal with weight loss should be able to maintain that once you have reached a “comfortable look”. Except what I noticed is how difficult it is to settle for “good enough”, when your progress has been so rapid for the first couple months.

Weight loss is addicting when you grew up overweight. Then you had a perfectionist attitude, you get someone who is willing to put in the work to become the best. You get an ego boost when you become proud of your looks, and that happiness compounds the closer and closer you get to your goal.

Yet your goalpost just keeps moving further and further away, but you don't notice because you are proud that you overcame something difficult, and its not going to be “that” much harder to lose one more pound. You claim to be a perfectionist, striving to be flawless.

You have already seen that you made it to a milestone very few people will achieve in their lifetime. You are being classified as athletic, fit, strong, and lean, yet you still strive for the top 1%. You want to reach something that is truly impressive. Chasing after being shredded, seeing every muscle fiber, and being vascular.

However, there is a difference between "having fat" and "being fat". When I was near my thinnest, my family used to tell me all the time that I was already too thin, so I showed them that I could pinch fat. They responded with “that's skin”, and I knew it wasn't. I wouldn't accept that as an answer.

There is no “lose weight fast scheme”, even if you are absolutely perfect and workout 5 times a day, and eat the exact amount of protein and calories for maximum results, it's still slow. It will be a long slow process. Not months, not years, but decades. And you have to convince yourself that, thats okay.

Dont allow your emotions follow the movement of the scale, losing weight is a part of the goal but the real goal is body fat, not weight in general, and you are lmore likely to lose weight if you're not watching the scale

My family wasn't known for being thin. So, growing up, we were being told that we weren't fat, just big boned. Nearly 35 million people across America live with food insecurity. 10 million of them are children.

Five years ago, I knew nothing about weight loss, or what healthy foods were. I used to eat whatever I wanted, whenever I wanted, without a second thought. I used to believe it was hard to lose weight, because it was hard to cut back portions. I just wanted to eat whatever I wanted whenever I wanted. I didn't know that certain foods lead to weight gain easier than others. I didn't know the reason why processed foods were unhealthy. All I was told is that they simply were bad, with no explanations.

I used to just eat plain sugar from paper packages at the restaurant. Eating peanut butter sandwiches with half an inch of PB, smothered in either honey or jelly. I used to have dessert everyday. Yet, I wondered why I was overweight and why I couldn't lose it.

I often ate until I was miserable, it was hard to stop eating. I would get a full plate, and I tradition at home was to finish your plate before you could ever leave the table. There was no choice to waste food, especially if you wanted dessert. Yet, no matter how much I ate, or how full I was. There was always room for dessert.

Food used to be the one thing I loved the most, the thing I looked forward to all day. It gave me more dopamine than anything else, food seemed to bring happiness, so I was always overeating growing up, unaware of how unhealthy my food choices were. I know what it's like to struggle with losing weight. I now know that I was just uninformed.

When I finally learned how to lose weight and realized that it was possible. I took the fastest path I could because that's what I thought I was supposed to. I saw our society praised fast weight loss. So I thought the number on the scale was all that matters, and I thought BMI was a good indicator for health. So I went into weight loss with the wrong mindset... Thinking any solution was a good solution.

I thought that I needed to cut out fats and carbs, count calories, eat low calorie foods, and exercise excessively. So, I did a combination of these for months and years. Experimenting with my body cutting out each food group, and then I tried prioritizing each food group, and let me be the first to tell you, it doesn't work. I was testing my body's limits, trying to understand the "way I felt". Writing down thoughts, and changes, to understand what combination gave me the most energy.

I didn't know what happened to the body when you do this. I didn't know the consequences of a bad diet, or what declining health was. It all just seemed incomprehensible, because I had never experienced a life-threatening sickness.

As I went down this path, I was experiencing a horrible quality of life, wondering why I had no control over my actions. It was like I could hide the way I felt on the inside by restricting, and staying quiet, but overtime, all that stress, anxiety, confusion, denial, frustration, isolation, and fear of being accepted built up, and I would have uncontrollable events where my life just felt like it was falling apart, and the whole world was against me.

Everything that happened around me seemed to be an annoyance, or an inconvenience. It was like, if the smallest thing went wrong, it ruined my day, and then I would be angry for being disturbed, or interrupted by the distractions around me. Yet, I didn't know I was acting different than usual, I just seemed to notice that I was spiraling downhill, and I was pissed off that nothing was going my way.

I just wanted a specific set of goals to be achieved, and I wanted a specific set of circumstances to get me there, but instead my expectations kept being halted by other people. Whether they did anything different than normal, my mindset in the moment was not ready to encounter a disruption. So when I got taken away from what I was currently doing, I just felt like it was all a waste of time.

I not only wanted to do "my own thing" when I wanted, but I also wanted to feel in control of the timing of events, and if I was not mentally prepared to change plans, I would feel a loss of control, and my body would tense up with fear, of having to do strenuous hard work that I couldn't mentally handle. Its like even the simplest tasks were trying to force me past my limits. It was like I was being told I needed to go run a marathon when I couldn't do it. I just knew getting out of my seat, I couldn't handle it. That fear of being pushed too hard was overbearing, and uncomfortable, and the smallest things just seemed to turn into the hardest tasks ive ever had to do.

I didn't realize I would feel this bad, I didn't even know in the moment that these tasks shouldn't have been this hard. They just were. I just couldn't keep up the pace, yet I was expected to, based on the physical and mental capabilities of others. Their expectation was that I am a "grown, healthy, physically active" adult, that should be able to do this simple task, yet, I didn't have the energy to do it. So there is a struggle, where your mind is trying to push your body to do things that it just doesn't want to do. Sure its "capable", but its not at the same time level..

This malnourishment caused me to feel worse than ever. I was chronically fatigued, always tired, navigating life through a perceptual fog. It's like I was in a constant state of being moderately sick. Drained, exhausted, and defeated, just wanting to rest and take it easy.

Of course, I had working arms, legs, hands, and thoughts, but using them just felt like too much work. It was way too unmotivating. Each one of my experiences was becoming less and less enjoyable, because I just didn't want to be there. I was tired of getting involved, and at the time i would much rather just stay home. Unbothered if i was missing out on the fun. The thought of struggling to participate was too exhausting, and i just knew it was going to be too challenging! Its like i was always pre-imagining that i was about to struggle, anytime i was asked to do something i didn't want to do. So i said anything I could to get out of it.

As you continually decline the invite, people start to just invite you less. This pushes you into a depression because you know your life isn't as fun anymore. This emptiness reveals a void in your life that can't be easily solved.

Not only do you feel fatigued, and disinterested, but you can't tell anyone your problem because you don't want them to know you are struggling. You just don't see an easy solution, but you can tell something is wrong. So you learn to accept it and deal with it. Hoping that tomorrow will be better. Hoping you'll have the energy then.

The next day comes and you're still seeing no signs of improvement as you abuse energy drinks to get through the day. The quality of your life continues to deteriorate, and it's hard to notice. This ongoing struggle highlights your lack of control. Revealing that there is a deeper issue beyond the obvious fatigue, disinterest, and sadness.

You start demanding an internal search for the root cause. So you reflect at your background and notice that you are missing out on human interaction, and a passion to learn and be creative. When you realize this is what you are missing, you get an intense desire for connection, excitement, and fulfillment. Signifying that there was not only a loss of participation, but also a lack of an emotional and social bond that these activities created.

We just haven't been prioritizing this anticipation of joy, coming from new experiences. Instead we unintentionally replaced that void with instant gratification (like eating), because we were uninformed on how necessary it was for us to get the whole broad set included in the human experience.

We didn't diversify our lifestyle enough. We did the same things, ate the same things, talked to the same people, and we got bored. We got accustomed. Nothing seemed new, so the only thing we knew would give us happiness and dopamine was a small set of activities we always resorted back to, called our addictions.

No matter what that small list of favorites are, you will not be fulfilled until you encompass a broad set of unique categories that make you "who you are". The problem is right now you are limited to a few characteristics that identify "who you are", and when you have a bad day, and your identity is threatened, its like your whole life is falling apart.

That next step is striving for self discovery, analyzing "the activities we miss the most". Allowing each of us to restore our sense of fulfillment, wholeness, completeness, and achievement. The INSIGHT you gain is the necessity for a balanced and fulfilled life.

We all have pre-established goals we need fulfilled, for our basic needs as a human. Like the basic human needs of food, water, shelter, oxygen, family, intimacy, friends, careers, hobbies, experiences, and mental well-being.

Although we all recognize these basic needs, we often don't see true depth in each of these until we face resistance, and become challenged. Only then, will we ever be forced to question our insecurities, fears, uncertainties, vulnerabilities, unknowns, instabilities, and reasonings.

If everything came to us effortlessly, without the need for work or difficulty, we would be permanently dissatisfied, craving for the opportunity to progress, which would only come from experiencing and overcoming challenges.

That's why it's so important to forget our fears and feel indifferent about the outcome, because you gain valuable insight into WHAT gives you the most fulfillment, and with an unbiased approach, you can see the reason WHY you do it, and then you can figure out HOW to do it more often.

Once you become self-aware, you can set more realistic short term goals that align with your interests and long term aspirations. Giving you the confidence to commit to a specific goal, indirectly forcing you to look for opportunities to get you there faster.

It's like when you drive the same route everyday. Eventually you are going to look for new alternatives, and in order to do that, you will explore, and look for new opportunities.

This takes you down new paths (ideas), giving you new information (thoughts), and opening the door to new areas you have never explored before (learning).

All we are doing is finding new ways to become more efficient, so we can get to our destination faster, and use less resources to get there. The reason I bring this up, is to share the formula on why we should continue to learn and explore each of our basic needs in life to find the highest quality version of them. Whether that be a career, hobby, relationship, group of friends, or dietary habits, we need to find the most rewarding and balanced path that matches our values and identity.

For a fulfilled life, every little thing you do should tie into this list. Like how can I make my friendships better, make more friends, and become closer with them? With your career, how can you enhance your resume, share your knowledge, and leverage your experience to show you bring value? With your hobbies, how can you make them happen more often, last longer, and get better at them?

In order to feel truly complete and fulfilled, you have to invest time and energy into each category. Not one area can substitute for another, because they each come with their own list of benefits.

That also means you can't find fulfillment through an excess of just one of these. Like overeating for happiness, or obsessing over specific achievements and improvements. You have to work on each concurrently. Putting in at least a little effort to each one so that you can move on and know at least you tried to improve that area of your life and didn't just let it go stagnant.

The reason you can't neglect any, is that when time gets tough, your mind will fixate on everything you've been missing and doing wrong. So instead of just having a bad day, you remember that you haven't been nice to your family, you didn't eat well, you didn't make it to the gym, and you still haven't gotten your dream job or dream home.

So remember that every area of life is connected to another. Nothing is separate, and that common denominator is YOU. Everything around you is affecting the person you are, and how you see yourself, and that determines how good your life is.

This LIFE is a pursuit of personal enrichment, focusing YOUR attention on the deep rooted reasons behind your passions, priorities, and motivations. So your goal is to link your behavior to the “reason you want this outcome”, because that is the purpose of the conscious mind. To become self aware, and notice that there are uncontrollable events that happen in nature. Each occurrence happened for a reason. For every input, there was an output. Our goal as people is to see WHAT is happening, and think about WHY its happening.

Behavior-wise, why are your addictions occurring, and what is causing them? What is your reasoning for finding enjoyment and pleasure in some activities over others? Your reasoning is often because of all the things you tried in the past; this worked best, and this is what you stuck to. This is what you identify with and associate your happiness with. You have positive memories associated with this object or behavior, providing you a sense of safety and comfort. This, in turn, allows you to maintain emotional equilibrium and navigate stress, which, in essence, provides a perception of control and structure, thus supporting predictability and order. This is crucial for reducing feelings of vulnerability, just so we can deal with all the uncertainty and chaos in our lives.

Furthermore, by establishing routines (control) and a sequence of actions (structure), behaviors become automated over time, requiring less cognitive effort and providing a framework within which one can operate effectively. Time management, as a result, allows for a more effective use of resources, leading to higher productivity and a sense of accomplishment. Essentially, we have an inherent idea of what opportunities our environment holds, so we know how much we got done with what was available in front of us. Consequently, people often define themselves by their ability to manage their lives and make orderly decisions.

That ultimately leads to an understanding of how and why you have confidence in certain areas over others. This realization not only reveals the reasons behind our treatment of others and our interpretations of how others treat us but also leads to more valuable life experiences. It influences every area of life associated with dopamine, including eating, socializing, hobbies, addictions, goals, and creativity. By orienting your behaviors towards these interests, you can lead a truly fulfilled life without the need to indulge in impulsive desires. It's like understanding that all of your behaviors stem from an internal idea of self-worth, with a subconscious goal to fulfill the basic needs of survival and purpose. You will continue to chase dopamine until you find what truly makes you feel fulfilled.

The key factor that ties it all together is the realization that your value, meaning, purpose, confidence, and enjoyment all stem from your energy levels. After that desire to be active, you'll crave the company of others and naturally find yourself in a positive mood because you feel good. This leads to positive interactions that boost your confidence, making you feel unbothered, calm, careless, and secure, knowing your basic needs for being healthy and happy are met.

Now, the opinions of others don't sway you because you realize your life is good. You've done everything you wanted, and it doesn't really matter how others were affected because you were just being yourself and having a good time. Knowing you didn't do anything wrong, and because you are happy and healthy, you have no reason to overthink. Life is good, and your body is not under the threat of malnourishment, so why worry about the outside world? There are no threats, just people, places, events, and surroundings. That's what it means to be satisfied and fulfilled: knowing that you are safe, content, secure, prosperous, invincible, healthy, stable, abundant, and growing. Being healthy means using all of your resources to your advantage, enjoying what's around you, and making the most of it. Hopeful, mindful, at peace, and open-minded, looking for opportunities.

Staying curious, adventurous, compassionate, understanding, and grateful for everything around you. We were all put on this earth to seek enjoyment, find new experiences, build relationships, take advantage of what is offered to us, and be healthy, happy, and energetic while doing those things. Your goal is not to impress others, but that seems to be the focus for many.

Missing out is the worst punishment. Yet, we often do it to ourselves by neglecting our health and avoiding extra work. We convince ourselves that we'll find time for self-care later, when in reality, the "eagerness to try new things" is where happiness lies, giving us a reason to wake up every day. Without the excitement of new adventures, experiences, conversations, and learning opportunities, life would be meaningless, and there would be no LIFE.

That's what declining health is. Not getting to enjoy life to the fullest capacity because you are focused on your basic needs of survival rather than experiencing the "adventures" that life has to offer. Avoiding "potentially enjoyable activities" because you are not mentally capable of handling the physical work you'll have to go through.

That fear of unknown future feelings could be the reason we avoid it entirely. We feel like we will have no control over the future state of mind. So as we make predictions on the negative thoughts and discomfort associated with the work endured, we recognize that there are going to be portions of this event that lead to miserable feelings. So rather than paying attention to the reward and outcome, we get weighed down by the negatives, and we become pessimistic, only seeing the negative, disregarding the benefits and possible enjoyment afterwards.

You currently have these preconceived ideas and fears that overshadow the potential for happiness and fulfillment that comes from facing and overcoming challenges. Honestly, the best part of life is that we do have uncertainty.

It is this uncertainty that initiates our curiosity, igniting our desire to explore, and learn. The unknown forces us out of our comfort zones, encouraging us to adapt and learn to become more resilient, so we can contribute and participate in activities we were once terrified of trying.

Ultimately allowing us to evolve into a more valuable version of ourselves. So we never miss out on an opportunity to participate in the "unimaginable adventures LIFE could present itself with"

So that is why it is so important to have the energy, confidence, and courage to engage with others, and enjoy life, because the whole reason behind eating healthy, is to provide us with physical energy and a positive mindset to ensure that we can have a positive, enjoyable, and memorable experience with friends. reassuring that we make a lasting impression so that they would invite us to spend more time with them, allowing us to feel wanted, admired, and appreciated.

It all comes down to people seeing us in a good mood, and wanting to keep us around. That FEELING of being wanted, proves to us that we are valuable. We have a support system of people who care about us. reminding us that even when life is hard, we aren't alone in the world, we belong, we matter, we have a purpose, and we are useful so we cant give up.

Life gets hard, and that's unavoidable. The trick is to make the hard times easier through social connection. The best parts of life are when we thrive. That feeling comes when we feel empowered, joyful, and energetic. A feeling that only occurs during growth, when we are surrounded by an abundance of resources.

There is something special to getting more, doing more, and being more productive. That's all life is. Just having the opportunity to DO MORE, and EXPERIENCE MORE, but at what expense. We trade the NOW, for either "future forfeitures or future advancements".

Hoping that every choice we make leads to the most enjoyable life possible. Its hard to balance instant gratification with delayed gratification. When we are designed and driven by this desire for MORE. Each second, we are deciding between more of what we currently have, or more of something new. Those are really your only two options. You can either keep doing what you are doing, or you can do something else.

So you have to know when to change and adapt, and that all depends on what you are preparing for next. Whether it be eating, playing, working, exercising, cleaning, or relaxing, the second you finish, is when you get to ask the question of, "do i want to keep doing this, or do i want to switch my focus to something else?"

Well we need to categorize our plans. Not pre-determine what has to happen, but organize our short term and long term goals into your reward system. Leveraging your motivations in the NOW to get things you know you'll want in the FUTURE. Like writing out what you could shift your focus to when you get bored and need direction.

I like to classify my short term goals as "what my personality lacks confidence in doing, and what gives me happiness in the moment." Those things are remembering:

- I enjoy learning
- How I treat others
- What i bring to the table
- The unique things about me
- That i crave human interaction
- I enjoy going out of my way for others
- That I ask people if they "need help with ..."

- I compliment myself and others best qualities
- That i'm reliable, and i trust myself that i'll do it
- That i'm authentic, enthusiastic, and easily entertained

My medium term goals would consist of how i want others to see me, and treat me, because that is what truly makes me happy, and i can achieve these easier by working on my short term goals.

- To be likable and admired
- Make more friends
- Invited out more
- Be asked for advice
- Be approached for compassion

Then my long term goals would be a byproduct of what i can achieve

- Eat healthy
- Career goals
- knowledgeable
- Initiate gatherings
- Be athletic and strong
- Live stress free and happy

Each of these goals are to fix the fundamental insecurities rather than chasing after the goal of losing weight, eating less, and exercising more. Which are not great motivators because it is so easy to mess up.

It's hard to stick to the routine we need to adapt to different time schedules, commitments, and unpredictable life events that throw us off course. So if the goal is being consistent at every meal, and to find time to workout everyday, we are going to fail, and get discouraged that we couldn't keep a simple promise to ourselves.

Consistency is where we fail because of how much it is preached. However, in order to be consistent, our routines would have to be unchanging. So the trick is to focus on being persistent, and adapting, so you can fit "healthy habits" into your schedule.

That consistency is what you have been using to become proud of yourself, but as soon as you aren't consistent, it's like your day is ruined, because you gave up on your goal. This sense of failure can be disheartening, especially considering the dedication of time and effort invested. It can be the worst feeling in the world to give up something, especially after spending so much time working toward it.

The consistent failure to see results and stay consistent is demotivating because there is no tangible reward in the moment. It's hard to be proud of yourself because you don't see the immediate results, and that feeling of regret is the same for all of us.

So we need to change our mindset around what THE GOAL is. Health and fitness should be used as ways to BE PROUD OF YOURSELF, and that's really the only reason to set goals. You should appreciate your personal journey and be proud EVERY SINGLE TIME you do something right. Never claiming that our routine is the expected standard.

Eating healthy and being athletic should instead be treated as lifestyle choice, rather than a strict regimen. Practicing healthy habits is not something we HAVE to do, because you aren't obligated to do anything. So you need to start enjoying every activity you choose, because technically you chose to be there.

Yet, anywhere we go, or anything we do, we compare our situation to other things we could be doing instead. Never giving our full attention to the task in front of us. That hurts us from having a truly worthwhile experience.

Its like we went for a reason, we started, and spent all this time getting ready to not get what we expected. That's disappointing, and a waste of time, and unsatisfying. THIS applies to the act of eating, working out, and socializing.

Making us not only feel regret from not enjoying it more, but also wanting to do it all over again and get a retry, hoping that we can get what we wanted and expected from the first time. Yet, our evolutionary memory and physiology, has no conceptual understanding that "there is no going back to the past". All it knows is that "I didn't get what I wanted the first time, so I need to keep trying so I can get it."

Imagine as you are eating, you cut yourself short, or you avoid something healthy, or you restrict yourself on something you really wanted. Well, you just defied biology, and used your willpower to overcome your natural desire to pick what your body NEEDS.

The solution is to fully invest your mindset into the activity you are doing and pursue it to the highest quality you can! Get immersed and committed to the task. Ignoring the outside distractions. Avoiding multitasking on activities you are already struggling with.

We take our mindfulness for granted, because we think we can accelerate our progress by acting on impulse anytime we get an idea. This rush diminishes our ability to enjoy the moments that make life truly rewarding.

For instance, eating becomes just another task to check off our list rather than an opportunity to nourish our body and soul, exercise turns into a grueling routine instead of a celebration of our physical capabilities, and social interactions become superficial engagements rather than meaningful connections

Our initial excitement to "do the job and get it done" clouds the repercussions that come with instant gratification. Those consequences usually involve negative feelings and emotions about how we manage our time and choices.

Leading to regret, depression, and worry. This cycle of not fully engaging in activities, working excessively without fulfillment, indulging too often without balance, or lacking diversity in our daily routines traps us in a monotonous loop. The pursuit of instant gratification, while momentarily satisfying, ultimately detracts from our overall happiness and contentment, leaving us yearning for a more enriched and diverse life.

By thinking we need to stay productive, we actually miss out on the highest quality experience because that fulfilling moment we are looking for in every moment of the day, exists in the present moment, where we recognize the benefits, and why we should be grateful for what we have.

For example, as we are eating, we choose to watch TV, or scroll through social media, rather than focusing on the meal in front of us. This not only detracts us from the pleasure of eating, but can also lead to a disconnection from our appreciation towards where our food came from.

This disconnection can lead to unhealthy eating habits, where we eat more out of distraction rather than actual need, potentially leading to overeating.

This inconsistent attention robs us of the chance to truly relax and recharge during our meals, turning what could be a restorative break into just another session of screen time. Over time, this behavior of purposeful distraction, diminishes our ability to enjoy food's simple pleasures and its role in bringing people together.

Similarly, with exercise, if our minds are elsewhere, we will not fully connect with our body's movements, sensations, and thoughts, missing out on the mental clarity provided by self awareness. This half-hearted participation can prevent us from experiencing the full benefits of exercise, including improved mood, increased energy levels, and a deeper sense of accomplishment.

These examples highlight how multitasking detracts from our quality of life, misleading us with the promise of productivity while scattering our attention. Increasing our susceptibility to future distractions, while also decreasing our patience and tolerance levels. Leading to a lack of control, causing us to become dissatisfied with our own accomplishments because there was a lack of purposeful, passionate, fulfilling effort put behind our work.

So by concentrating on one task at a time and practicing mindfulness, we will actually feel a higher sense of achievement because we can actually start to notice the nuances that make AN EXPERIENCE enjoyable or meaningful.

When you take time to slow down, and notice how complicated and complex each detail is, you'll get a better understanding of how our tasks are connected to the bigger picture. We aren't just looking at how things work, and how they were made, we are gathering information to comprehend why "what they do" matters, and "how this item affects our life."

Once you realize that each item you interact with, has memories attached to it. You'll notice that your 5 sensations give insight to positive or negative memories. THOSE are representative of who you are. Each imagined scenario provides a glimpse into your reason why you chose it.

Whether that be from a friend's recommendation, a reminder of a friend, or an item that acts as a conversation starter to make a new friend. You chose it because it had an emotional and symbolic significance, making everyday moments more enriching and fulfilling.

Each object or event is going to have either positive or negative memories associated with it. That will determine how much you enjoy it, or look forward to it. Regardless of how much dopamine the flavor gives you, the object itself is inherently neutral.

By recognizing this, we can consciously choose to let go of the emotions attached to those memories. Allowing room for interpretation and re-evaluation so we can reshape our relationship with the objects and activities in our lives, as we detach from past emotions tied to memories.

Its like we spend the first 15+ years of our life, adapting, learning, and experimenting, before we become stubborn and stuck in our routines. When one of the secrets to life is being able to continually adapt to any situation we put ourselves in. Whether it be the way we speak, act, dress, or eat, we need to embrace new experiences, perspectives, and opportunities.

Embracing adaptability means recognizing that our current methods, techniques, beliefs, attitudes, habits, and behaviors are not fixed but are subject to change and improvement. It involves a willingness to question the status quo of "you are who you are, and you don't have to change."

Except, adaptability gives you the freedom to experiment with new approaches, and to learn from the outcomes, whether they are victories or mistakes. As a result we become more resilient in the face of life's inevitable ups and downs, while also more empathetic and understanding of others' experiences and viewpoints. Encouraging us to stay curious and open to other alternatives. Therefore keeping us engaged, motivated, and always looking forward to the next adventure, lesson, or connection.

The best part of life, is getting to enjoy it. So by being able to adapt to multiple different situations and perspectives, we open ourselves up a vast array of new life experiences. That means you don't have to be strict. Just because you set your standards to a certain level, doesn't mean you have to maintain that 100% of the time, it's not possible.

Claiming you can maintain perfect behavior consistently is unrealistic. Expectations are really just benchmark goals. That is when you are comfortable, satisfied, proud, and enthusiastic, but you can't be surprised and fascinated by everything around you, because that would be exhausting!

In order for you to be consistently happy 100% of the time, you would have to be obsessed and passionate with our surroundings every second of the day, it's just unrealistic. Nobody can uphold that standard, yet we all chase it and criticize ourselves when we can't maintain perfection.

Well the truth is “no matter how perfect you are, there will always be something wrong with you. Nothing in this world is PERFECT, so that's why we shouldn't worry about it, even the best people in the world still have flaws.”

So the question you have to ask yourself is “does this make your life easier or harder? Is it helping you with anything? Or making you genuinely happy?” If so, what are you happy about, and how happy are you with the results you are getting?

True happiness comes from the progress of overcoming past challenges, not just pleasure and dopamine. However if we are happy either way, why would it matter what we choose to make us happy? Well, it's because every so often, we each look back at our track record, and reflect on how much PROGRESS we have made. We look at our impact on others, and make assumptions about how much “we matter” based upon our perception of self, and how we want other people to see us.

In order to have a truly fulfilling life, we need to know deep down how worthy we are to deserve happiness. Dopamine comes easy, but did you work for it? The ultimate biological reward, being the complex neural-network of the human life, was just given to us. We have an instinctive pressure to do the best we can with it.

Although we all understand this concept, we still try to take shortcuts. We want the fast acting happiness, and we want it to come easy. That's where I believe we all become similar, as we each rely on our individual interests and desires (our addictions), to make us different from one another. We all have different goals, desires, and beliefs, and that is all an accumulative representation of our life experiences.

For example, I've gone through phases where my favorite action was eating. It gave me joy and it was something I felt required to do. That's what my mindset was set on, and all my goals revolved around finding safety and comfort in the areas I wanted to excel in. I was dedicating my life to this topic. Bringing it up in conversation, putting thought into it, along with taking action to prove to myself that this shows others “who I am”, and what im interested in.

It's like in order to stay alive, I need to make sure others know my values, interests, goals, and beliefs, so that they can have a representative image of my character, and the qualities i bring to the table. That's how we base our self-image, and how we measure our self esteem...

Our feelings and emotions are oftentimes a reflection of the environment factors. Just as a single cell organism has environmental cues to be active or calm (depressed or happy), we are also influenced by our biological instincts to unconsciously determine whether we are in an advantageous or risky situation. Just like how a single cell may experience chemical signals of attractants (positive/favorable/beneficial/nourishment) or repellents (harmful/destructive/death).

Those characteristics get naturally selected for through probability, over millions of versions, in millions of different environments, over millions of years. Eventually, outliers get removed, and the “most fit/highly adapted” cellular responses stay.

What this tells us is that our natural intuition is usually correct. So therefore if we continue to live in a prolonged depressed state, we probably need to change something.

We may have the wrong approach, and unfulfilling goals. We may be focusing on reputational wants over genuine needs. Chasing after materialistic, popular, exciting, status-driven ambitions, with no guarantee that it will make us any happier once we achieve it.

This consistent pursuit takes away from our quality of life because we fall into the trap of thinking we have control of our trajectory, when in reality, we are just chasing dopamine. This cycle will continue overtime because we are just going through another phase of life, chasing after new evolving “addictions”.

The solution is to stop chasing dopamine, and instead chase the reason WHY you are doing this. Find a reason “this” leads towards a better future for yourself.

Your goal is good, but your goal is not the reason you have the goal. WHO are you trying to impress, what do you gain from it? WHAT area of life can you experience to a “higher quality”, is it your personal relationships, family connections, professional achievements, or perhaps your personal development and hobbies?

What could make your life better today? You can’t plan for 1 year in the future, let alone 5 years. Life is going to change. Your goal won’t be the same exact thing as your perspectives change, and opportunities open up.

The best part of this, is that you never know what life will throw your way, so you get to stay on the search! You get to stay curious, ambitious, excited, and explore! Life will never get boring! There is a whole new future you can experience just by taking new opportunities, new perspectives, new adventures, and that's why we live each day! Not waiting, but searching for the next best thing!

All you can do each and everyday, is follow your instincts and desires, navigating through life with the information and wants you have right now. Being impulsive with your learning opportunities and adventures. Exploring your curiosity, and being unattached to the outcome of your choices, and instead choosing “what you know you want”, and allow your developing thoughts to guide you.

Don’t think about how much it sucks to wait, anticipating, just do SOMETHING. Your emotions aren’t supposed to discourage you, they are really just indicating importance. Your emotions may expose challenges and fears, but these are just areas available for you to grow, improve, and become more self aware.

Inability to tolerate hunger, stress, anxiety, struggle, frustrations, and discomfort, really just expose our vulnerabilities. They are weaknesses that make us feel powerless, and insecure, but they are really just opportunities to grow, adapt, and become more resilient. Reminding you to loosen up... don't take life too seriously.

Don't try to alleviate feelings of stress, sadness, and boredom, especially with food as our coping mechanism. Just “let go” and realize what you are dealing with is not that bad. You don't need to escape from it, because you aren’t actually struggling.

We are so caught up in the fundamental paradox in our existence. Battling the decision between safety/familiarity and growth/discovery because we always maintain the safety net and prepare a comfortable back up plan. Ensuring it is ready for worst case scenarios.

Enforcing strict expectations on ourselves, pre-imagining the results before they even happen. Its like our memory has an inherent flaw that makes us predetermine the choices we are going to make when it's our turn to express "free will". We are so caught up in resorting back to our default habits, that we never take the opportunity to do anything different.

Its a complex decision to fight against our self identity, because its so vital to our behaviors and values. It's important to recognize that although some aspects of your life contribute to your identity, they don't encompass your entire being.

You enjoy these things, and they bring value to your life, but they aren't essential to your existence. This understanding should empower you to make choices that align more closely with your true self, rather than simply adhering to familiar patterns or external expectations. It's an invitation to live more freely and authentically, to engage with your interests and connections without letting them confine or define you entirely. By embracing this perspective, you're not abandoning what you love but rather allowing yourself to experience LIFE without the unnecessary attachment or pressure to unfulfilling addictions.

We attach our identity to past behaviors, and we point to that past version of ourselves, and say "that's who I am". That's how people see me, so that's how I must stay.

THIS BELIEF COME FROM FEAR. We stay weak and indecisive. We continue to let the fear of rejection, failure, loss, change, inadequacy, judgment, responsibility, and abandonment limit our desire to pursue our true passions and potential.

As a result we live in the past, thinking everything we just finished learning is enough to carry us forward through life. Yet the world around us is constantly changing and growing, and we stay the person we have always been. Unable to get ahead in life, because we spend so much time just TRYING to keep things the way they are.

We spend so much effort and energy maintaining comfort, and relaxation, yet we never allow ourselves to truly let go and be unbothered and unstimulated. It's like we stay in this consistent neutral emotional mind state, just regulating our emotions, so we never experience the extreme highs or challenging lows.

We never get the chance to show any strong emotions because that would "show signs of instability or weakness." This societal expectation forces us to suppress our true feelings, leaving us feeling isolated and disconnected. We have created an environment where emotional honesty is undervalued, and where authenticity is often sacrificed for the sake of social acceptance and approval.

This can prevent us from truly connecting with others on a deep and meaningful level, because we never get the chance to truly be ourselves (show emotion) around them.

Showing emotion is really just a way to express that “look at how this affected me, this is important to me, THIS IS WHO I AM”. Emotion means more than just sadness. It's about authentic unexaggerated responses that represent how we truly felt on the inside.

It's like we all walk around wearing masks that hide our real thoughts and feelings. So we are constantly looking for opportunities where we can break free from these constraints and embrace our genuine emotions.

Whether that be joy, sorrow, excitement, fatigue, nervousness, anger, guilt, shame, jealousy, disappointment, misery, fear, relief, pride, gratitude, curiosity, passion, inspirations, affection, love, enthusiasm, admiration, satisfaction, or contentment. Each can lead to a richer, more fulfilling relationship with someone around you, and a more purposeful life.

We are really just looking for ways to feel connected. That comes when we have a true feeling of “being understood”. We want others to know “how we feel, and where we are coming from.”

Almost like an emotional, psychological, and spiritual connection that gives us safety in knowing we can trust, and empathize with someone else. Recognizing that you are not only being acknowledged but have a SHARED experience. Where we feel connected because the people you surround yourself with have personalities similar to your own.

This is where your purpose in life may come in, and until then, it's possible we will never be fulfilled. Until then, we may resort to our “addictions” to cope with this emotional burden we didn't know we had.

There is a feeling of emptiness, we may refer to as boredom, depression, or general dissatisfaction, we try to suppress, ignore, and avoid by constantly seeking distractions.

In doing so, we overlook the most important aspects of our lives, and get trapped in the cycle of avoidance, stagnation, and detachment from sharing our emotions. As a result, we remain unfulfilled and often resort to high-dopamine activities as a temporary relief from this dissatisfaction.

We all want to attach ourselves to something, whether it be a person, object, idea, or situation. By clinging to past versions of ourselves (identity), we not only limit our growth but also reinforce the misconception that change is synonymous with loss and failure. This fear of change, rooted in the anticipation of negative outcomes, keeps us anchored in familiarity, even if it means sacrificing our potential for growth and fulfillment.

We seem to be afraid of the unknown. As if uncertainty is directly correlated with discomfort. We compensate by seeking out routines, rituals, and addictions because it gives us the feeling of being in control of our future state. Which is oftentimes associated with comfort, relaxation, peace, calmness, pleasure, and happiness.

What we don't realize is that comfort zones only allow for temporary fulfillment, while true fulfillment comes from personal growth, achieving goals, and realizing our potential. So you learn that HAVING GOALS is essential to living a fulfilling life.

Many meaningful goals lie outside our comfort zones. Whether it's pursuing a dream career, forming deeper relationships, coming up with ground breaking ideas, leading a social impact, or making a positive contribution, these aspirations often require taking risks and embracing discomfort. Risks that usually involve initiating, leading, participating, or quitting.

By remaining in our comfort zone, we deprive ourselves of the opportunity to explore new experiences, emotions, and connections that could enrich our lives and deepen our sense of purpose. So as we expose ourselves to new ideas, cultures, and experiences, we foster empathy, understanding, and personal improvement. In return we become content, fulfilled, and appreciative of the diversity in the world around us.

Finding value in the differences, nuances, available opportunities, and freedom of choice. Understanding that we have been missing out in life. Not because we have been shy, or isolated, but because we feel forced to comply with social norms and patterns.

We live a predictable life, when the goal is to become an adapting freethinker, who is spontaneous, impulsive, intrusive, and intuitive. This is the complexity that makes our individual experiences so different from one another

This opportunity for personal choice gives us the opportunity to become proud of ourselves. Yet we are missing out on that so no wonder we resort to high dopamine activities. It's the easiest way to cope when we don't know what's wrong.

We spend so much time conforming to the popular trends that we never actually self-reflect, and ask ourselves “if this gets the attention of people we share values with?” This fault of inauthentic behavior leads to emotional dissatisfaction because we find ourselves continuously searching for genuine satisfaction and deeper connections, rather than naturally attracting it to ourselves.

I think the problem is that we try to manipulate our future and control the outcome by setting expectations. We pre-establish these because we want our future to be predictable, safe, and comfortable, but we are carrying unnecessary stress and anxiety. As a result we miss out on the most important part, which is ENJOYING THE PROCESS.

We instead choose to focus on our fears, with a goal to maximize the end goal. We choose to sacrifice our entire quality of life, because we thought the END GOAL would be better, but when was the last time your goal exceeded your expectations and became sooooo much more enjoyable than you could have ever imagined?

Most of the time, our goals are anticlimactic because we set our expectations too high, only to realize that the anticipation was the most enjoyable part. Each large goal was preceded by 100's of small victories we overlooked, because we were so busy looking at them as challenges.

It was those exact challenges and mistakes that we dreaded the most, that turned out to be the most fulfilling and recognizable moments we could have ever been thankful for. Those moments were the hard work we look back on and give credit to. They gave us a reason to learn and reflect on our memory, and gave us a story worth sharing! They made the “end goal” worth it!

That's the part of OUR STORY where all of our EFFORT went, and that is the indicator of importance. Nobody actually knows what you went through to achieve that lofty goal. They can make assumptions based on the significance, but that still is a broad categorization of "who you are".

The only true way to give you credit is hearing your JOURNEY. That includes the STORY of YOUR LIFE from YOUR PERSPECTIVE. Covering all the repeated events, failures, mistakes, lessons learned, challenges, turning points, opportunities, realizations, and acts of bravery.

These define the JOURNEY you have been on. They are what give your efforts personal meaning, and uniqueness. These are what make that final accomplishment worthy of respect, admiration, and pride, because you had to work for it. You had to earn self-worth, and confidence.

That's why attributes like personality traits, quality, characteristic, achievement, and material success are the closest representation of what you have done with your life and all the progress you have made with your time.

These positive aspects simply can't exist until after you have gone through the journey. So time is going to be that limiting factor that represents the number of situations you could have possibly put yourself through.

That's why it's so important to "live a little", and make mistakes, because without mistakes, you'll never have an experienced, insightful, knowledgeable and dependable perspective. So with the collection of experiences over time, we start to gain self-control, discipline, courage, and resilience, which allows for authentic decision making true to our beliefs.

The goal is to be so experienced that we detect misinformation and false assumptions, and recognize that there are unrealistic expectations being set by each of us, with the assumption that life must be perfect in order for us to enjoy it. Forgetting that imperfection is an inherent part of being human.

What we get in return from this effort, is stress, self-doubt, and the feeling of inadequacy because we couldn't comply with the goals we set for ourselves. This ultimately leads to our addictions, pains, struggles, sadness, and depression because we inflict a negative self perception on our own abilities. That is the self destructive behavior we initiated ourselves.

Its like we set ourselves up for failure from the beginning. The higher the expectations we set for ourselves, the less in life we are willing to settle for.

Which leads to the possibility of having feelings and thoughts that we are being overwhelmed, disrespected, unappreciated, inconvenienced, challenged, disappointed, uninformed, unsatisfied, and uncomfortable, when in reality, we are overreacting to our anticipation of what we believe we are entitled to receive.

Then when we can't obtain these expectations we feel helpless, unworthy, unlovable, ignored, guilty, uninspired, uninterested, unenergetic, abandoned, undesirable, threatened, fearful, discouraged, intimidated, neglected, independent, unskilled, hopeless, and incompetent.

Its like these negative self beliefs come up anytime we don't get something in return, because we go into every situation with an expectation of a specific outcome. We try so hard to make sure we earned something better than what we started with. Otherwise why would we put in the work at all?

Well, it's more than just the tangible achievements. As we navigate through life we should instead look for opportunities to learn, enhance our skills, and deepen our understanding of the world around us and how we should interact with it based on our values, beliefs, motivations, strengths, weaknesses, likes, dislikes, and goals.

These intangible rewards like personal growth, resilience, and enrichment of our character are ultimately the most rewarding aspects of our efforts. They significantly contribute to our sense of fulfillment, self-worth, self-esteem, contentment, gratitude, generosity, and feelings of accomplishment we earn when we bring value to others without asking for compensation in return.

This authentic and genuine behavior fosters a deep sense of self-acceptance and a richer connection with others. Leading to the answer we all search for “how and why am i different from others? Why is it important that I am here to contribute? What value do I bring with my contribution?”

Once we figure this out and understand our purpose, we won't have to seek comfort in food, and pleasure, because we have already found our mission, and everything along the way just becomes a “neutral necessity” that supports the journey.

For example, food could be thought of as a simple biological necessity that gives you energy to do ALL of the OTHER things you enjoy. That way you can reallocate the mental willpower spent on basic functions like eating, walking, resting, or working. Like imagine you never had to put effort into deciding. You would have so much extra time to engage in other activities that truly resonate with your deepest passions and interests.

Yet in our society, we become influenced by cultural norms of trends, choices, and expectations that we feel the need to “balance” healthy and unhealthy choices, and we just make this multidimensional situation more complicated than it needs to be.

So wouldn't it be nice to establish contentment in a few areas of life so that we don't have to spend so much time chasing after the solution to them. Like self motivation, discipline, routines, habits, emotional regulation, and stress management, which are aspects of life that will never go away, but continuously influence our daily confidence, and overall happiness.

The brain is designed to search for happiness. We obsess over it. You just have to be aware of where your happiness is coming from, and because it is coming from food, you have to be mindful, and have a plan.

The problem is, food has become a pleasure rather than a source of nutrition. We have taken this biological tool, and used it for tradition, celebration, comfort, and indulgence, when it never was designed for that. Food used to be a part of a routine, and scarcity was a fact of life, but in today's world, we have exploited it to bring us happiness.

Food has become a reference point, to bring us back to the baseline feeling of “calm”, because we are surrounded by so much stress, anxiety, fear, uncertainty, and boredom. Food has become our anchor because we have associated it with pleasure, peace, and safety so many times.

It has never caused us pain in the moment (except when we overeat, or regret gaining weight), but other than that, food has been the one thing that has always cheered us up when we were sad. It never let us down.

That's why it's so important to have a good relationship with food, and not expect more benefits than it was designed to give. You have to avoid becoming emotionally attached to the euphoria associated with easily accessible and irresistible routines. That practice is emotional intelligence. Which is the ability to evaluate, adapt, disengage, re-engage, and judge whether this is something you want to invest in.

Since we are constantly being incentivized to chase instant gratification, we have been conditioned to look for safety and control in recognizable opportunities, because repeated activities are predictable, clear, reassuring, comforting, and peaceful. These are the most likely to keep you out of danger, and give you a consistent routine. We choose that because there are no struggles or uncertainty, but that does not directly correlate with a more fulfilling life, or a higher quality of life.

Fulfillment would come from experiencing the extreme situations possible in this life. We think that dopamine and euphoria lead to a worthwhile life, but in reality, that excitement and energy we look for, actually comes from the instability and unpredictability.

Oftentimes we don't have the choice to be happy, but we have to keep living. Our options are either to be passionate about what will come and keep moving, or be burdened by the misery and stay stuck where we are.

The most common goal is to be happy and stay happy, but the linear one dimensional life leads to monotony, and boredom. We want something to search for. We want chaos, randomness, and variety, we not only crave it, we need it. Life without extremes would make every task and reward feel useless, meaningless, unimportant, and unimpactful.

Bad days make good days feel 10x better! Good days make bad days feel not so bad, but without bad days, life would have no purpose. We would have nothing to care about, nothing to work hard for, nothing to improve, and there would be no direction. Yet opportunities for BETTER exist! That means we can stand out, be different, innovate, prioritize, build, expand, and optimize.

The freedom to choose happiness determines where you fall hierarchically. YOU choose where you put effort in, and where you want to outperform, and outshine! Happiness is easy, but you know what's worth more. The opportunity for personalization.

Our choices exist as unthreatened, unpenalized decisions that allow us to choose our future. That's why the adult life is so dangerous, because we fall into the trap of reliving our own past, and trying to make up for the life we missed out on as a child.

This behavior is intensified as we interpret everyone's life on social media. Noticing that they are getting to "be a part of" and "experiencing" the most exciting moments. While we are stuck in our routines, responsibilities, and obligations.

We imagine that their lives are full of excitement, exploration, and wonder, because that's all they show, yet they never tell you how much time they spent anticipating and waiting around. So we compare and diminish our own quality in life as we form expectations, about what our reality is supposed to be like.

As a society, we ignore the value that exists in the slow times. We overlook the personal thoughts, conversations, environment, and systematic complexity. It's like we give no attention to the time we spent preparing, gathering, searching, strategizing, thinking, commenting, coping, reflecting, visualizing, customizing, conserving, delegating, and negotiating. Yet that's where our intelligence shows, and our character is built. These aspects of life are exactly where we get to create our quality of life, because those decisions we make determine how comfortable your "quality of life" is.

Every action we make directly influences our mood, emotions, feelings, temperament, behavior, opinions, perspective, curiosity, and desires. These mental states and achievements combine to create your personalized list of values and desired activities. This list develops over the years and accumulates into a set of expectations, perspectives, and interpretations.

Well, if we all go through similar events, like careers, education, vacations, parties, bills, hobbies, health, home maintenance, parenting, and eating, how can we make our experiences different from everyone else?

Well, it's in the way that we PRIORITIZE each of these, as we reflect on our past experiences. We "identify" with these hobbies, games, events, adventures, views, places, people and objects because this is all we know. These memories encompass who we are.

As we look at our role, and how we fit in. We start to desire some activities over others because they allow us to be noticed, acknowledged and appreciated, and that brings us happiness. So of course we are going to do that more often. We are going to get better at that, and neglect other time consuming tasks.

Whether it be at a party, work, or time at home alone, we have to decide between eating, talking, listening, playing, resting, or organizing. Each thing takes time, and leaves less time for the others.

Everything we do takes up time, and what we choose to do determines how much we enjoy our time. So not only do we have to pick, but we also have to alternate between multiple activities in order to live a fulfilled quality of life.

In the act of making one choice, we inadvertently miss out on the dozens of other opportunities available for you to enjoy. That VARIETY and capability to have free-choice at every intersection (internal debate on which way to turn) is what makes self-discovery possible.

The whole GOAL in life is to "live a life that you enjoyed", and to be happy with the choice you made.

There are dozens of conversations, activities, interactions, and experiences possible every second. Each ONE MOMENT takes up time. Everything we do takes up time. So its important to know what is valuable to you, and what is a waste of time.

That suggests you need to find your limitations of where effort exceeds perceived value. Not one thing will make you happy forever, because we build tolerances, become ungrateful, and we expect more.

So if it's impossible to maintain happiness forever through one activity. Why do we try? Well, the mind works in phases. We classify beneficial behaviors into categories we consider helpful, and we repeat these ideologies for weeks/months. This repetition in our routine is recognized, so when we are in a safe place, the most strategic thing to do would be to stay in this environment and keep this going.

The problem is that we are confusing this safe and secure mindset with happiness. An analogy would be that by standing next to the fountain of youth, you could live forever. This is your belief that by repeating this activity, you will not only live forever, but you will also stay happy forever because you achieved the ultimate quest. Immortality, and happiness.

Food gives you this same feeling too. Except the truth is, these beliefs and promises are only in your head, because you will not live forever, and standing in one place forever will not make you happy either. Happiness is fleeting, because every second you continue to repeat a task, there is burnout and desensitization.

Yet, rather than task-switching to something we would enjoy more, we force as much happiness out of any activity we can. When we do this during eating, its harmful. Not only are we wasting the time that could be spent doing other things. We are also compromising fulfillment and ignoring the true happiness that comes from adventure and time with others.

Everything you do, is by choice, and everything has an opportunity cost. The enjoyment of any activity depends on finding the right balance. So you can leave feeling satisfied but without the overindulgence that leads to discomfort.

We all have a preferred limitation on how much we can tolerate before we reach our threshold. That ability to respect your own boundaries, preserve your equilibrium, and effectively sustain your resource of willpower is what will guide you towards a more sustainable and joyful life.

By consciously allocating your energies and engaging in a variety of fulfilling activities, you will not only enrich your life experiences but also maintain a healthier psychological state, preventing the pitfalls of stagnation and monotony.

This doesn't mean multitasking, but instead be confident and cut your activities short every once in a while. You're not missing much by switching it up before you get your money's worth, because the goal is to avoid the inevitable decay of interest over time.

By task switching as soon as we detect a loss in excitement, we can prevent the accumulation of monotony that diminishes our motivation and willpower throughout the day. It's as though the setbacks and mistakes are gradually draining our energy and enthusiasm. By diversifying our activities and not overcommitting to any single one beyond its joyous peak, we safeguard our emotional and mental reserves, ensuring a more balanced and fulfilling daily experience. This approach keeps us agile and more capable of enjoying the variety life offers, without the burden of burnout.

Simply said, just don't waste your time on something that isn't making you happy. That way, when you finally get full, you are 100% happy and satisfied. At the end of the day, it's always nice to look back and remember the dozens of activities you got to be a part of. You got to do all the things you wanted to, and none of them made you regret the rest of the day.

Many of life's routines exist under the condition that you have to do them every day. With expectations that you need to stay within the boundaries, even though there is a small margin for error.

For example, eating is something you have to do on a regular basis, you can't escape it. Yet, everyday we are expected to eat an amount of food within our personally acceptable range, and it's hard to keep track of. Not only is it difficult to stick to our patterns, but also trying to maintain our repetitive behaviors can be exhausting as our physical demands, needs, and wants compete with one another.

It's easy to interfere with our natural balance, because every THOUGHT influences our biology, and that can lead to a disruption in our homeostasis. Which triggers responses in our hormones that make us more susceptible to temptations. This would imply that we might indulge in unhealthy behaviors more often, lowering our self esteem as a result, potentially initiating a downward spiral that could have been avoided by a mindset shift.

Stigmas exist for anyone who gains or loses weight. Honestly, maintaining the same weight is probably one of the most difficult things to do.

So you have to trust the process, and allow the body to naturally self-regulate itself.

Although you may be mentally over a situation, the ripple effect on the body is still retaining that energy.

You are where you earned the right to be

If you switch your diet, then your body finds a new range to settle in, once you switch to natural foods, your homeostatic range will be at a lower fat mass. Then instead of gravitating back to the old weight, we get to stay at our new set point.

If you go through your fat loss right, then you can create a new homeostasis set point of fat on your body

Almost as the body has a set point it always returns to. Everyone's body tried to stay in homeostasis and stay at the same weight.

So there is a ripple effect of signals propagating down a pathway just reaching the next wall where evolutionary biology has planned out which molecules are in the pool, and which receptors were at the next wall. So all you have to do is eat and keep giving it the required building blocks so they can be dispersed throughout the body because every cell will pretty much need the whole display of nutrients/vitamins/minerals/electrolytes. They reach their destination, and when that cell is full of vitamin X, it goes down to the next one and diffuses wherever it is needed. Finally coming close to equilibrium then using up those resources, so it is constantly needing a resupply, just like any other system of organization. The cell will find what to do with these molecules as each molecule finds its balance,

Cells are able to work together through a complex communication network that involves signaling molecules, receptors, and other cellular components. This communication allows cells to coordinate their activities and respond to changes in their environment. One way that cells communicate is through direct contact with each other. For example, cells in tissues can physically interact with each other through junctions like tight junctions, gap junctions, and desmosomes. These junctions allow cells to share molecules and signals, and to work together to perform specific functions. Another way that cells communicate is through the use of signaling molecules such as hormones, cytokines, and growth factors. When a cell releases a signaling molecule, it can bind to a receptor on another cell's surface, triggering a response in that cell. This response can range from changes in gene expression to alterations in cellular behavior, ultimately allowing cells to work together to achieve a common goal.

because over time, your body will moderate your behavior to match the energy needs of the body. This natural process works if you consistently eat foods that align with the body's biological mechanisms.

The timing is crucial for biochemical processes to mature and correspond simultaneously. This is similar to the quote "things happen for a reason," so whether you prefer a timely process or a series of specific events. There will still be an unavoidable functionality of nature, that organisms can't control.

You can not describe the behavior of an organism without describing the behavior of its environment, they shape each other, they are unified, they are not puppets of one another, being pushed around. The relationship between them is transactional, as they coexist

As humans our inherited advantage is to become efficient at putting on more fat than other species. We were able to live through harsh winters, and times of scarcity, because we did not die off from prolonged starvation. This is a gift we received from all of those people that lived before us, which is today now a curse because of how accessible food is. The food we are confronted with and the way our body digests it is just one of the many things we all have in common. Human beings are not that different from one another.

We are actually 99.9% identical in our genetic makeup. So that means that your physiology is 99.9% the same to everyone else's. With the differences in the remaining 0.1 percent hold important clues about the causes of diseases. Our bodies have 3 billion genetic building blocks, or base pairs, that make us who we are. So 0.1% of 3 billion is 3 million different identifications that make us unique in the way we think, look, act, and process incoming materials.

When they say that your DNA is telling you to do something or to avoid something, it's actually a true, saying, because overtime those individuals whose DNA allowed for stronger receptors to sense that specific thing, stayed alive, so in your DNA, you are capable of more receptors, or a beneficial, sense, recognition or physical adaptation, that allows you to survive, while others may flounder

Signaling pathways have already been created, we're not making new ones, otherwise our body would not have functioned from the start. We are not responsible for inventing new receptors because there are no new molecules in our body that have never been seen before. All the messenger hormones, checkpoints, and cell membranes are just steps along the way, to the final and product that allow us to perceive this human life perception of feeling and awareness of reality

It's all about the gene expression, not the genes themselves

Based on how our body works, your genes can be either on or off, and there are millions of them. Your potential is not limited by what DNA you were born with. There is a theory of epigenetics where your genes are modified by your behavior and environment. By acting in the right way, living in a healthy environment, and feeding your body healthy nutrients, you can alter the state of these genes and turn on the ones that are preferable like muscle growth, clean skin, etc.

I believe that even if you follow your intuition, eat until you are full, you will not gain weight. Even if you overeat by 100 calories a day, your body will upregulate your metabolism and keep you at a set point. The only time you actually start gaining fat is when you overeat for multiple days in a row, for example during the holidays. Even if one day you are really overeating on healthy food, your body is going to regulate itself, and pass more feces through, causing you to absorb less than what you ate.

There is no top down structure for complex systems, it's almost as if from the bottom up, every individual part plays its role, and stays interconnected, and independent

Once you understand how each of the components work, then you know how the system works

The system is a combination of all its parts

Complex systems are run by the connection between these individual parts

A well-nourished body can produce and respond to appetite-regulating hormones more efficiently, which helps maintain a healthy weight and prevents overeating.

Accumulation

adequate nutrients get

This comes with expectations and self created rules and standards
Because nobody is going to hold you to this

the appetite can induce strong enough signals to dysregulate emotion

With fluctuating appetites, various distractions and temptations, different exercise routines. There seems to be no way to predict what your caloric needs will be for the day. You have no idea how much you need, so how could you possibly track it? Are you even supposed to track it?

I say NO for multiple reasons, and I recommend allowing INTUITION to take control. Allowing the natural instinct to stop dictate how much you eat, but this only works under the condition that you only eat natural occurring foods, in such cases, you won't have to worry about the quantity.

What I have learned is that “no matter WHAT you are eating, you will stop eating when you are satisfied.” Sometimes that feeling is distinct, and other times that satisfied feeling never comes, and you just have to choose to stop at a point that makes you happy.

As long as you stop when your body says so. You'll never gain excess weight, but the problem is that our food choices lure us with the promise of pleasure. We are constantly overeating because most of us do not listen to our intuition. We need to develop an understanding of what recognizing hunger cues feels like, by practicing healthy eating.

Intuitive fullness is recognizing that instantaneous feeling your body gets when you hit the threshold from discomfort to comfort. That moment is your satisfaction limit. Your appetite doesn't disappear, but you all of a sudden become comfortable.

The goal is to stop eating when we feel comfortably full. That is the body's indicator that it has enough nutrients to work with, and we have enough energy to make it to the next meal.

Number one rule is to stop when you are satisfied. Don't be starving and don't be stuffed. At the end of the day, no matter how healthy you eat, it is still going to take discipline and self control to stop eating once you are satisfied.

The hardest part is stopping before you get to the end of the plate. You have to mindfully accept that no matter how hungry or full you are, YOU decide when to stop eating. It's a choice. Appetite and satiety are good indicators on when you SHOULD stop, but these signals are not strong enough to MAKE you stop.

So you need to consciously make the decision to stop for 30 minutes as soon as you get the urge to put the fork down. It can take a lot of willpower to get through the 30 minutes, but that is why it's so important to forget the meal, ignore your surroundings, let go of your previous thoughts, and move on to other things you want to do instead.

Have a plan for what you are going to do as soon as you finish eating. Get involved and distract yourself with an activity you enjoy. Whether it be immersing yourself in a conversation, project, or game, find something to distract and entertain yourself for 30 minutes.

The problem is we rely on eating for our dopamine, so we can't escape it. We become trapped in the action, because we internalize and ingrain the feeling into our identity as our primary source of happiness. We act as if we have nothing else enjoyable to do afterwards. That's why it's so important to always have something to look forward to.

In order to have a quality of life, we have to set goals for ourselves! They don't have to be possessions, strength, speed, intelligence, fame, or wealth, but our goals should include personal challenges to find limits, find ways to have fun, and to influence others' awareness of the world around them.

These goals get set at the start of every task, so you have to know what you want out of life. Usually it's a passionate, purposeful, fulfilling, rewarding quality of life. Which becomes your highest achievable aim at the moment. This is how you enjoy life. This progress towards the next THING is what makes life exciting!

That is probably the best life lesson I ever learned. Learning that happiness comes from the internal drive you have DURING THE PROCESS of trying to get to the end goal you set for yourself. Gratitude comes from seeing the work you put in, and seeing the progress you are making every step of the way. Your happiness does not come from the end goal alone. It never will! Even if you were only able to achieve every goal instantaneously, you would still find yourself setting goals just outside of your reach.

No easy goal is worth your time and effort. The truth is, time is passing, and it will continue to pass for decades longer. We all innately understand this. So if you knew you would live to 90, what style of life do you want to live along the way? Who do you want to become 10 years from now? What are the expectations you have for yourself over this period of time?

Do you see yourself being athletic, active, healthy, energetic, or fun to be around? Well, what's your plan on "how you are going to achieve this?"

Well, you'll do it with the mindset of keeping these goals as your top priority. Recognizing that they are not going to come easy, because LIFE IS HARD. Sometimes the work sucks, but it's worth it, because of that goal, and the rewards that come with it.

Pursuing this lifestyle opens the door to so many unimaginable, unpredictable opportunities that you haven't even considered yet, and until you've been exposed to them, you'll never give them a try.

As you embrace this lifestyle, you'll discover hobbies and adventures previously unknown, only revealed to you through new experiences and explorations.

These activities introduce you to a new quality of life, once outside of your comfort zone. They are your preview to a broadened set of new activities that you might enjoy. It all starts with taking initiative towards your goals. Once you start making healthy decisions with everything you do, everything else will align. Then, skills like confidence, energy, and enthusiasm will all come as a result of getting involved.

We all want to be included, but that all takes effort, willingness, and desire to meet new people through shared events and activities.

Eating healthy is not intended to only give you energy. It's about self discipline and personal growth. This act of making "healthy" choices, is actually creating a lifestyle that you want to be a part of.

Nobody cares what you eat or what you enjoy doing, but we do care about your involvement, and mental health. Virtues like confidence, self-worth, and self-respect affect more than just you. We are all affected downstream by how you influence others. Your mentality can encourage us, motivate us, and inspire us, but we need you to participate and have fun!

You can make our life better, and in return, your life will be better because of all the experiences you discovered through social interactions. Your life will now be rich with various activities you can participate in at any time of the day!

Those activities were always options, but you never would have appreciated them until you were convinced of their benefit. New perspectives can influence your beliefs on what to do in your free time, converting these so-called post-meal distractions into actually enjoyable activities we are passionate about!

The whole goal is just to get through life, and live with “NO REGRETS”. That implies don’t do anything that would lead to regret either! So as we continue to progress through life, we need to make decisions that allow us to have FUN! Yet, we keep overlooking that sense of enjoyment because we are so focused on our future.

Obsessing over our opinions, motivations, and considerations trying to determine if we are doing the right thing, making the right choice, or heading in the right direction. In the meantime life is going by and we aren’t even enjoying it, because we live in a state of fear, trying to meet societal expectations and get external validation. Trying so hard to make life perfect, preparing for the challenges and opportunities that might be ahead.

Trying to protect ourselves from uncontrollable, unpredictable situations, but we take it too far. We not only prepare, but we analyze every different scenario. Thinking it's possible to eliminate all stress, boredom, anxiety, depression, and disease, hoping that nothing will ever go wrong.

Instead of learning from these, and being proactive, we often resort to avoidance, denial, procrastination, pleasure, as a way to decompress, seek comfort, and find relief. These coping mechanisms eliminate the possibility to enjoy the journey of where your thoughts or choices take you.

The fun exists in the journey that happens everyday. Which requires mission based activities and optimistic mindsets to explore the realm of happiness. Without passion towards the goal, life becomes purposeless and we become victims to our environment. Responding to pressures regardless of the self-control you have.

Life is difficult, especially when you don’t have a goal. However, when you prioritize mindful resiliency, everything in life becomes easier. Especially when you tell yourself that life is supposed to be hard, nothing seems to be out of the ordinary.

So what if something goes wrong?? Was there ever a right way? Or is that just the way you wanted it to go? Life is full of uncertainties and imperfections. Nobody knows what the perfect life is, and that's because there is no perfect life.

So instead of trying to maintain script, embrace uncertainty! Look forward to the natural flow of events and conversations! Become agile, adaptive, and flexible! Be open, authentic, and opportunistic because this strengthens your curious mind! Allowing you to take control over your mindset and become self-reliant and independent.

Your perspective on your current situation directly impacts your self image, because no matter how good or bad your situation is, you will also recognize that you got yourself there. You know deep down how reliable you are. You already know based on your track record if you have the willpower to resist and recover.

That knowledge empowers you to push through. That's all resiliency is. Accepting the past thoughts and feelings, and then prioritizing next steps. Those feelings of stress, anxiety, mood swings, awkwardness, and embarrassment, are amplified by low energy levels.

Oftentimes, we try to avoid and change these feelings by increasing our energy and dopamine, but low energy is not always a food problem, sometimes it's a motivation problem. Low energy comes in unexpected phases, and during unforeseen events, sometimes its unavoidable. So instead of fighting these feelings, and classifying them as miserable and unpleasant, accept them.

Exploring physical and mental journeys. Creating missions, adventures, making connections, as you form new ideas, perspectives, and worldviews. Joy comes from exploring a range of thoughts, feelings, sensations, and situations. Involvement in these mental experiences IS THE JOURNEY.

The perfect life is hidden in the moments where we focus our attention on the present task. That moment when we are fully engaged, mindful of our self-worth, brings out an indescribable feeling of comprehension, clarity, and relief, knowing that EVERYTHING WILL BE OKAY, even though you don't know exactly what you want.

That belief brings out the true enthusiasm and passion for VARIETY, in everything we call life. Whether it be thoughts, feelings, emotions, sensations, sights, sounds, tastes, smells, textures, places, events, interactions, conversations, objects, or experiences, each one includes an immeasurable amount of opportunities.

There are unlimited possibilities, so don't waste your time doing the same thing. Every moment is NEW! Nothing you did yesterday means you have to enjoy it today. So go into every situation with a unique set of wants, and desires. Goals and ideas change over time, so just enjoy what you want to enjoy while you're enjoying it, because someday, you're not going to enjoy it anymore.

You will never be able to preplan what you are going to enjoy next week, next month, or next year, so don't waste too much time planning for it. Getting to LIVE, means that you are on the journey. You can't find the destination. Yet, we think our goals are the destination. They are more like a guiding light.

They make life worth living because they indicate you are passionate, proactive, valuable, motivated, and happy. Setting goals gives you the freedom to explore the richness and diversity that each moment has to offer! Allowing you to appreciate, admire, and experience life for what it is!

You can't stay happy and safe forever, no matter how hard you try to force it. Sometimes you'll get uncomfortable, and upset, and things won't go your way, but there is still the "chance" that there could be an experience out there that was better than the one you originally imagined.

Each step along the way guides you to that moment! As you progress through time, your experiences accumulate and merge into a unified scenario. Compiling all of your past behaviors, reactions, conversations, choices, interactions, and social impact that led you to this moment where you are now getting reciprocated consequences to your self-esteem, stress, motivation, worldview, identity, quality of life, energy, frustration, patience, trust, acceptance, appreciation, and compassion. Which influences your mindset and ability to continually make good (healthy, safe, ethical, responsible, sustainable, informed, proactive) decisions.

Every area of your life suffers when you neglect mindfulness, emotional connection, selflessness, appreciation of time, gratitude, self-care, consideration, and generosity. It's as if every choice you make has a ripple effect of chain reaction events, where everything you do today, sets you up for the future you will experience.

Our life is full of inputs and outputs. Your effort goes somewhere, like cause and effect, "nothing done can be undone", and "any action done cannot be taken away". Everything YOU do shapes your body and memory, and everything you have done up until this point in life, has already sent out ripples of chain reaction events, affecting your physical brain chemistry, and the way your body responds to incoming signals. Your body reflects your choices.

Every food choice you make affects the way your brain and body functions. Food is the precursor to all of the hormones in your body. When these hormones are not balanced, this is when you experience mood changes, this is when you experience short tempers.

Food is the instructions and building block to how your body will function. Metabolism changes based upon the types of food you consume. If you eat too much sugar and fat, then your body will develop complex physiological and chemical reactions that respond to that environment.

AKA the stuff you put in your body, dictates the environment your cells live in. Nobody became obese from only eating whole foods. So the truth is, when your body is made out of processed food, you can only assume that your body is going to look representative to the resources you gave it. We can't outcompete biology, and your willpower will not win over your cravings. That's why I think SATIETY is the solution to a healthy diet.

The whole body gets affected by what you consume. So therefore by maintaining satiety, you are going to help stabilize these hormonal responses, promoting a more balanced and healthy physiological state. This balance is crucial for mental clarity, emotional stability, and overall physical health.

Your past behaviors dictate how difficult your life is today. There are consequences to everything we do. It doesn't matter if you think you did something "productive or beneficial", as long as you did something consistent, life will get better.

By focusing on satiety (feeling full and satisfied), you can avoid the complications associated with overeating or emotional eating. There is no "guaranteed path" to become healthy, it's a mindset, it's your mood, it's your choices.

Nobody wants to gain weight, and nobody wants health issues, but you get to pick what you eat. Although you may not get to pick what's put in front of you, the trick nobody ever told you, was have self discipline and don't pick it up.

Even though "life" is full of abundance, and you "don't have to" limit yourself. We are still wasting a lot of time and money for things we don't need. Often times we didn't want the item in the first place, but now that it's right in front of us, we might as well try it. We have room for it, and there is a deal on it, so why not?

It's like we don't even notice how much we accumulate, and consume because the turnover rate is so fast. We keep seeing the next best thing and craving it as our next meal, so all the food in the pantry and back of the fridge just sits. It all goes bad eventually. but if we were more efficient and only bought the things we ate, then our grocery bill would go down.

According to the USDA the average American family of four wastes approximately 31.9% of the food it buys, and with an average weekly grocery bill of \$250. A family of four is wasting \$4,000/13,000 per year, and they can save \$1,500, by minimizing food waste.

About two-thirds of food waste at home is due to food not being used before it goes bad, (According to Cires.Colorado.edu). Across the globe, residential homes waste 37%, restaurants and retailers waste 40%, farming and processing waste 16%, and an additional 7% is lost in storage and transportation (EPA, USDA, ReFED, NRDC).

Breaking it down by food groups, waste per year is roughly 30% for cereals, 40-50% for root crops, fruit, and vegetables, 20% for oil seed, meat, dairy, and 35% for fish. In the United States, 30-40 percent of the food supply is wasted.

Food waste translates into lost income for farmers, which increases prices for consumers. Inefficiency in markets, decrease in value, and inability to sell something you paid for is a factor that directly influences inflation. The annual value of food wasted globally is \$1 trillion

"While the world wastes about 2.5 billion tons of food every year, the United States discards more food than any other country in the world: nearly 60 million tons (120 billion pounds) every year. That's estimated to be almost 40 percent of the entire US food supply, and equates to 325 pounds of waste per person. That's like every person in America throwing 975 average sized apples right into the garbage, or rather right into landfills, as most discarded food ends up there. In fact, food is the single largest component taking up space inside US landfills, making up 22 percent of municipal solid waste (MSW). All told, the amount of food wasted in America has an approximate value of nearly \$218 billion – the equivalent of 130 billion meals."

“More than 80 percent of Americans discard perfectly good, consumable food simply because they misunderstand expiration labels. Labels like “sell by”, “use by”, “expires on”, “best before” or “best by” are confusing to people, and in an effort to not risk the potential of a foodborne illness, they’ll toss it in the garbage.”

“Product packaging can also get damaged during shipping, leading supermarkets to toss products even though the food hasn't been compromised. The stores assume that no consumer is going to buy a dented box of cornflakes if a pristine one is right next to it.”

“Wasting food has irreversible environmental consequences: it wastes the water and energy it took to produce it, and generates greenhouse gasses — 11 percent of the world’s emissions — like methane, carbon dioxide and chlorofluorocarbons, which contribute to global warming. Food that sits decaying in landfills also produces nitrogen pollution, which causes algae blooms and dead zones. According to the World Wildlife Federation, the production of wasted food in the United States is equivalent to the greenhouse emissions of 37 million cars.”

Our habits continue to contribute to global warming, and global warming continues to contribute to a lack of food.

So the first thing our society needs to fix is our food utilization practices. Not only is food is food thrown away in the home and restaurants, but even grocery stores, which “waste 30 percent of their food supply, generating about 16 billion pounds of food waste every year. That waste in the retail industry is valued at 2x the amount of PROFIT they get from food sales.”

“Most grocery stores operate under the assumption that customers are more likely to buy produce if it's from a fully stocked display. This assumption often leaves overstocked holiday foods that never sell, or unpopular new items that soon get tossed.”

“Customers have been trained to expect perfect, identically shaped produce. So retailers stock their produce according to that expectation — even if the shape, size, and color have nothing to do with quality. This preference leads farms to avoid selling the so-called B stock to supermarkets. Whatever does make it through the cracks to store floor is taken out of stock”

“Approximately 30-40 percent of food that farmers produce around the world, is never consumed. Food loss at the farm level depends on many uncontrollable variables, including the type and quality of crop, market price and consumer demand.”

If there’s no market for a particular crop, it’s better for the environment, if the farmer plows the crop goes back into the earth, to provide natural fertilizer rather than going through the effort of harvesting, packing up food to enter the supply chain, only receiving a marginal income, and then still need to invest in fertilizer and apply it.

Now if that marginal food was sent into market and never consumed, it will most likely end up in a landfill. “Food that gets produced but stays uneaten occupies almost 1.4 billion hectares of land. Which is roughly 30% of the world’s agricultural land area going to waste.

So that's where food waste starts becoming a problem as the amount of renewable resources we are able to produce is starting to reach a cap, and there is only so much land on earth to grow food. While at the same time, it's predicted for the population to grow to around 8.5 billion in 2030 and 9.7 billion in 2050, before reaching a peak of around 10.4 billion people during the 2080s. The population is expected to remain at that level until 2100.

To meet the demand of increasing world population, food production will need to be 60 percent higher by 2050 as compared to 2005.

We need as much available land as possible to inhabit this many people! Quality land that utilizes the space strategically. Earth's surface is only 29% land. Only 76% of that is habitable. The remaining 24% is glaciers, and barren land. Of the habitable land, we have urbanized 1%. Forest, shrubs, freshwater lakes, mountains, deserts, arctic, rivers, creeks, take up 54%. Which leaves the remaining 45% for farm land

Of that 45% arable land, livestock (meat and dairy) takes up nearly 80% of global agricultural land, even though it only produces 17% of the world's supply of calories. While crops take up only 16% of arable land, yet provide 82% of the world's food supply (according to ourworldindata.org).

These proportions exist to fulfill the demands of the market. We the customers dictate how much of a resource we want. Businesses exist to capitalize on customer demands. So if anything about the unproportionate land use is going to change, it's going to start at the customer level. In order to keep up with customer demands, businesses race to get products out the door, inefficiencies in the system exist. Some of them are unavoidable but it's good to be aware of.

The US contributes 47 million tons of animal (pre-slaughter weight) to the global supply chain. **United States:** ~15-20%, **China** is ~30%, **Brazil:** ~15%, **European Union:** ~15%, **India:** ~4-5%

Worldwide we are generating 337.2 million tons of animal meat per year (pre-slaughter) (FAO). After the production of beef, pork, poultry, and lamb, 20% of that animal weight is going to waste every year due to animal diseases, poor farm management, inadequate infrastructure, and inefficient systems adding up to 67.4 million tons being wasted worldwide.

Edible meat consists of 60% of that (40.4 million tons). Non-edible parts (bones, skin, organs, fat trimmings) are 40% of that (27 million tons). Which means there is 270 million tons of meat eaten worldwide.

Approximately 40-50% of a cow is considered edible meat, 55-65% of a pig is considered edible meat, and 65-75% of a chicken is considered edible meat. Eggs and dairy are not considered in this category.

In the US, we are creating a total of 9.4 million tons of waste. 5.6 million tons is edible. 3.7 million tons is non-edible. In the US, we have a population of 331 million. So, that would mean, each person is wasting 37.2 pounds of clean meat per year.

In proportion, China wastes around 11.4 million metric tons of food annually (17.4 pounds per person per year) which is driven by cultural practices, large population, and infrastructural challenges. India wastes around 8.6 million metric tons annually (13.6 pounds per person per year). The European Union wastes about 7.25 million metric tons annually (35.7 pounds per person per year). Russia wastes approximately 4.1 million metric tons per year (61.9 pounds per person per year). Japan wastes about 3.1 million metric tons annually (54.2 pounds per person per year).

[UNEP Food Waste Index Report 2021](#)

Ministry of the Environment, Japan - Food Waste Reduction

[FAO - Global Food Losses and Food Waste](#)

USDA Foreign Agricultural Service - Japan Food Waste

[UNEP Food Waste Index Report 2021](#)

[IFCO Food Waste by Country 2023](#)

[World Population Review Food Waste by Country 2024](#)

OECD-FAO Agricultural Outlook 2021-2030

FAO Meat Market Review

USDA Global Agricultural Information Network

These numbers represent waste per capita, not exactly a representative of what each person is wasting. Waste happens along the entire process. The production stage contributes to 20% of waste due to disease or infection. Processing and packaging amounts to another 15% due to spoilage, butchering waste, and contamination. Then 10% is lost in distribution due to inadequate refrigeration, delays in transport, damage during handling. 10% in retail due to overstocking, improper storage, expiration, and damage. Then 45% at the consumer level due to over-purchasing, improper storage, lack of meal planning, and food safety concerns.

Waste is inevitable, but some sources say we could avoid up to 50% of waste during the production stage (6.77 million tons), 60% in processing and handling (6.1 million tons), 70% in distribution and transport (4.74 million tons), 60% in retail (4.06 millions tons), and 70% at customer level (21.33 million tons).

At the retail level, large quantities of food are wasted because we prioritize the appearance of foods. As a result we are having quality inspections throughout the whole process to prevent unnecessary work downstream. We introduce systems to create consistent workflows ensuring that there are minimal bottlenecks. We limit the amount of overload and hold ups by understanding customer wants and needs, and ensuring the work is spread out evenly from the start to the finish of a product to ensure proper quality once it gets to the customers hands

In the meat industry, we have come close to maximizing efficiency in the upstream process. Techniques and updates are still being introduced but consumer waste in the home is still the area with the most room for improvement.

I understand that we are surrounded with an abundance, and we take what we want, but because of the “throw away mindset” we have in the household, we are overstocking, overindulging, being impulsive, picky, and selfish. All for the sake of convenience and comfort.

Globally those small inefficiencies accumulate into observable environmental damage and resource depletion.

In terms of clean edible meat, we are wasting 3.7 billion pounds of beef, 5.5 billion pounds of pork, and 9.2 billion pounds of poultry. Estimating the capacity to produce 980 pounds of beef per acre, 3,371 pounds of pork per acre, 15,224 pounds of poultry per acre. The world is theoretically wasting 3.79 million acres of beef production, 1.49 million acres of pork production, and 0.61 million acres of poultry production. Which totals 5.9 million acres of land across the world wasted.

If you account for the total edible, and non edible waste in those areas, where meat is wasted, and re-account for the ability to save the whole animal, then we would be wasting 5.1 million cows ($\approx$ 1,200 each), 33,9 million pigs ($\approx$ 270 pounds each), and 1.5 billion chickens ($\approx$ 6 pounds each).

[FAO - Global Food Losses and Food Waste](#)

[ReFED - Rethink Food Waste](#)

National Resources Defense Council - Wasted

[FAO - Livestock's Long Shadow](#)

World Resources Institute - Creating a Sustainable Food Future

[National Geographic - The Hidden Costs of Hamburgers](#)

Look at all the waste in time, work, energy, land, life and resources. It takes 2 years for cattle to reach full size, 6 months for a pig, and 8 weeks for a chicken. Then farmers spend over \$500 on feed for every cow, \$100+ for every pig, and \$1.50, for every chicken. All the time, labor, housing, land, equipment, bedding, utilities, and veterinary costs also go to waste.

Imagine the waste that would go into pastured/free-range/grazing livestock. Each animal would require additional land, time, and feed to get to full size. Barn-raised cattle for example, usually get 100-250 sq ft, while 100% grass fed/free-range require up 1-2 acres each. While also needing an extra 6 months to reach full size because grass is a much lower “energy density” food.

Most farms may use a combination of grazing and penned feeding. In order to expand the cattle industry to make room for grazing, cropland or woodland would need to be traded for cow pasture. There isn't an infinite amount of land, it has to be allocated proportionally between industries.

The more efficient crop fields become, the more farm land could be redistributed. The main goal is to return land back to forestry. The quickest way to convert that land back into forestry is actually to produce less crops, and the only reason we would do that is if people needed less food to sustain their habits.

Every time you throw something away, means you have to go order another meal rather than saving that as leftovers and reducing the amount of food you have to eat over the period of a year. That wasted food goes to the landfill that takes up space, and which means that not only did you waste food but you also wasted the money, land, and labor it took to prepare this next meal because you could have just eaten the leftovers instead.

We all know that the more we waste, the more we have to pay in the long run, but with high expectations, companies are forced to waste more to maintain standards. As a result, companies pass those expenses back onto the consumer with higher prices.

Of course, your impact is a small contributing portion to a whole country of problems, but it starts with a perspective switch. Change corresponds with lifestyle. So many of us are uneducated. That mindset diffuses into every area of life.

Chasing perfection leads to dissatisfaction and the constant anticipation of something better. There will always be another trend, and there will always be another option, but by the end of all the resistance, we see that the solution involves acceptance.

Trends such as vegetarianism and recycling become mainstream when groups highlight their benefits. Doesn't mean that everyone has to comply, or become an extremist, but global biases change generational behavior.

A predominantly plant based diet is the long term solution. It's not going to happen overnight, but with the plan for land utilization, waste reduction, recycling, longevity, immunity, and mental health, whole foods are going to be the recommendation.

Plants can feed more people per acre, and produce more protein per acre farmed. Plants require less labor and attention. They grow autonomously and decompose. Every part of a plant including the fruits, roots, leafs, and stems are usable. Whether it be for food, medicine, paper, compost, decor, or construction, it has a use.

Learn your product's story and life cycle, it will change your perspective as it pulls on your personal ethics, morals, beliefs, and values. It's this very knowledge that motivates us to make more informed decisions. Every day, we make choices that reflect our worldviews, biases, and opinions. Some decisions are intentional, while others are mindless. Recognizing the impact of our consumption and waste habits is crucial for fostering a more sustainable and ethically aware society.

The United States generates one of the highest amounts of waste per capita. Generating approximately 239 million tons annually. This accounts for about 12% of the world's total Municipal Solid Waste, even though the U.S. only represents 4% of the global population. Per capita, this amounts to over 1700 pounds of waste per person each year. Canada produced 1870, Australia 1790, Japan 1170, China 970.

FAO - Livestock's Long Shadow

World Resources Institute - Creating a Sustainable Food Future

National Geographic - The Hidden Costs of Hamburgers

ReFED - Rethink Food Waste

National Resources Defense Council - Wasted

Most of our waste goes to landfills (52%), the rest can go to incineration (20%), composting facilities (8%), animal feed (2%), anaerobic digestion (4%), illegal dumping (less than 1%), sewage Systems (5% in the form of liquid food waste), recycling programs (less than 1% processing waste into bio-based products), redistribution programs (10%, redirecting food into food banks and charities), or home composting (2%).

Landfills still seem to always be the default, unless an alternative solution intervenes. This reliance on convenience waste is an unsustainable practice. Waste reduction and materialistic possessions should be the topic of conversation. Convenience has allowed for a disconnect from taking mental responsibility for the outcome.

This waste includes a mix of food waste, plastics, paper, glass, metals, wood, textiles, rubber, and electronics. Organic waste makes up 28% of landfills. Animal byproducts take up to 21.4% of that, crop byproducts take up to 46.4%, and yard trimmings take up 32.2%.

U.S. Environmental Protection Agency (EPA)
Frontiers in Sustainable Food Systems
Molecules Journal

Even though food decomposes and turns into soil in a landfill, there is a problem when food gets buried and becomes anaerobic, it produces methane which is 84-87 times more effective at trapping heat in the atmosphere compared to CO₂ over a 20 year period. Landfills are the third-largest source of methane emissions in the United States, contributing to about 15% of the total methane emissions. Amounting to 16% of global greenhouse gas emissions.

[EPA: Understanding Global Warming Potentials](#)

[IPCC: Global Warming Potential of Methane](#)

[World Bank: Methane Emissions](#)

Reducing food waste is the #1 solution to the climate crisis, according to Project DrawDown. We don't live in a perfect system, but managing our garbage and leftovers is simple and effective.

A landfill is not a sustainable solution, it fills up within 10-50 years, and that land becomes unusable. Yet it still requires maintenance, leaches toxic contaminants into the air and water, devaluing the land around it, releases methane causing air pollution, and attracts pests. Nobody wants a landfill anywhere near their house. Yet, even with a landfill's key role and importance, over half of the population is still unaware of where their local landfill is located.

Land is being consumed, overtaken, and rendered unusable as our population continues to expand. Agricultural land is being pushed further away from the cities, which destroys ecosystems and reduces biodiversity. So every time we urbanize natural areas, we decrease the land available for wildlife or vegetation. This is a common trend across the world causing a decline in vital ecosystems that support, sustain, and prolong human life.

Biodiversity is decreasing everyday with animal species dying and going extinct all across the globe. The decrease in habitat, increase in droughts, and rising temperatures in northern climates are all contributing to the inflation and increased difficulty in retrieving resources.

As the cost of transporting crops from distant agricultural areas to urban markets increases, so will the waste and spoilage rates. Longer transport times also lead to a decrease in freshness and quality.

As a society we set expectations on standards that must be met, otherwise we won't buy it or use it. In the US, a third of all produce is thrown away because it is deemed too "ugly" to eat (according to Olioex.com). This is our problem.

In order for those standards to be met, supply chains have to sort, process, and filter through millions of products to ensure that our quality standards are being met by the time we the customers see the final product.

Sometimes that filtering starts at harvest, where crops will be left to rot, rather than being picked and sent to the supply chain to then be wasted. At least the nutrients will be returned to the field as fertilizer!

There are so many factors that affect the way a plant matures. Any struggle along the way can cause imperfections in the size, shape, or color. For example, the lack of water during a critical growth period can lead to misshapen fruits and vegetables.

The outer layers of plants are always being threatened by bugs, pests, fungal diseases, frost, viruses and bacteria that can stunt growth and cause premature death.

The best way to protect plants and maintain uniformity is through selective breeding, GMO's, crop protection, and physical barriers. Each one of these is a safeguard against natural predation.

Weeds have become extremely invasive and plants cannot produce their optimal yield if they are competing with others for nutrients, sunlight, and water. Uncontrolled weeds can cause yield losses of up to 91% in corn fields, and up to 34% loss in soybean fields.

[Weed Science Society of America](#)

[University of California Agriculture and Natural Resources](#)

[International Journal of Pest Management](#)

The only techniques to maintain weeds are manual removal (hand, hoe), mechanical cultivation (plow, disc, till), mulching, tarp covering, selective watering, selective grazing, smother crops, no-till, or chemical herbicides. Imagine only doing one over 500 acres.

Modern farming incorporates a combination of these based on size and affordability. Believe it or not, organic does not mean pesticide free either!

Organic farming allows the use of certain natural pesticides derived from plants, minerals, or other natural sources. These substances are considered less harmful than synthetic pesticides and are typically listed in the USDA National Organic Program (NOP) guidelines. Examples are neem oil, pyrethrin (derived from chrysanthemum flowers), and sulfur.

Sustainable farming has become a very technologically advanced industry. Farmers are using pesticides strategically, and conservatively. They want to use as little chemicals as possible because they want healthy food too.

Precision spraying is a newly evolving technique that uses GPS and GIS technologies to apply pesticides accurately to target areas, minimizing waste and environmental impact. Without herbicides, fungicides, insecticides, crops would need to take up more land space, that's the downside.

When we coat a seed with insecticides, fungicides, and pesticides, it does not get into the seed or influence the DNA. None of the pesticides currently authorized for use on food in international trade are genotoxic (damaging to DNA, or able to cause mutations).

Pesticides do however, give the growing seed a higher likelihood of survival, by giving it a more favorable environment to grow in. Whether it be killing microbes/parasites in soil, or killing insects who want to eat the seed, pesticides deter threats. Some of these chemicals have beneficial nutrients that the roots can pick up to help the seed thrive at germination. Some chemicals can be dispersed throughout the growing plant stem and leaves to deter insects.

The toxicity of a pesticide depends on its mechanism of action, dosage, time exposure, and contact method. Many people don't realize that insecticides tend to be more toxic to humans than herbicides.

Humans apparently do not have the right receptors to accept these herbicide molecules, and we have a high acidity digestive system that would destroy the molecule, but you can only imagine what happens in the body when you get large quantities of it.

Glyphosate specifically acts as a competitive inhibitor to the formation of enzymes and minerals in plants that support amino acid production for crucial processes for plant defense mechanisms, photosynthesis, immune system, and hormone production. Plants lose their ability to recover.

The same chemical can have different effects at different doses. While humans do not have the shikimate pathway that glyphosate targets in plants, glyphosate exposure still is a chemical and has a LD50 (lethal dose for 50% of the population) of approximately 5,600 mg/kg in rats. Indicating relatively low acute toxicity. For a 150-pound human, this would equate to approximately 380 grams or about 325 mL. One review noted that ingestion of more than 85 mL of a concentrated glyphosate formulation can result in significant toxicity.

[Cornelia Staehelin](#) ¹, [Niklaus Egloff](#), [Martin Rickenbach](#), [Christine Kopp](#), [Hansjakob Furrer](#); [Swiss HIV Cohort Study](#)

The Environmental Protection Agency (EPA) sets Maximum Residue Limits (MRLs) for glyphosate on various food commodities. For example, the MRL for glyphosate on corn is 5 parts per million (ppm), and for soybeans, it is 20 ppm. EWG reported glyphosate levels in oat-based products ranging from 0.1 ppm to over 1 ppm.

Which would take 75,000kg of corn to reach. Or 19,000 kg of soybeans at one sitting, because it is based on a single exposure and not an accumulation. According to the USDA, the average American consumes around 36.9 pounds (16.74 kg) of corn products per year, and 0.1 kg/day (36.5 kg/year) of soybeans.

Even if it did accumulate. It would take approximately 4,481 years for an average person to consume 75,000 kg of corn, and approximately 522 years to consume 19,000 kg of soybeans, even with a high estimate of daily consumption.

Of all the possible diseases, glyphosate is blamed for non-hodgkin's lymphoma. Which just so happens to be caused by genetics, age, gender, immune system, infections, radiation, chemical exposure, and lifestyle factors (high fat diet, smoking)

No farmer wants to spray chemicals on their food, anymore than we do. It's expensive, and they want to ensure they can provide their customers with the lowest price. Less pesticide use requires more passes over the field with a tractor. Which means more fuel, more soil disturbance, compaction, and erosion as soil is dragged downhill.

If you don't like pesticides you should be pro-GMO. Plants have already been naturally selected for over the last 1000's of years. More recently, companies have found more precise and efficient techniques to select for desirable traits.

Resistance to pests, bugs, fungal disease viruses, drought, and herbicides is a natural process plants go through. Naturally when a cell undergoes stress, it resists. Some plants just by luck of natural mutations have a protein that makes them less susceptible than others.

These secondary metabolites, such as alkaloids, terpenoids, and phenolics act like "natural pesticides", and plants have 100-200 of them specifically identified and studied.

"Biochemistry of Plant Secondary Metabolism" by Michael Wink: This book provides a comprehensive overview of the types of secondary metabolites and their roles, including their pesticidal properties.

National Pesticide Information Center (NPIC): NPIC Natural Pesticides - Offers information on various natural pesticides used in agriculture.

USDA National Organic Program (NOP) Guidelines: USDA NOP - Lists approved natural pesticides for organic farming.

Ratio of natural/synthetic pesticides in corn is 80/1, while soybeans are 43/1. So there is a higher level of natural pesticides in a plant than you would get from the residue on the outside. Therefore, I don't believe you can get the disease from the trace amounts found on your vegetables.

Environmental Protection Agency (EPA) - Pesticide Tolerances: [EPA - Glyphosate Tolerances](#)

Journal of Agricultural and Food Chemistry: Studies on secondary metabolites in corn and soybeans.

USDA Pesticide Data Program (PDP): Annual Summary

National Institutes of Health (NIH): [Natural Toxins in Food](#)

Bacillus thuringiensis (Bt) is an example of a natural pesticide. Humans manually selected a set of genes present in a soil bacteria, associated with this protein (Bt). Scientists can detect which set of genes contributed to that characteristic, and then create a similar version of that dna sequence through advanced bioengineering techniques, like molecular cloning, using PCR or isolation from an existing cell.

Once they have the desired gene. They can intentionally insert that new sequence into the undifferentiated cells of the desired crop we want to genetically modify. Usually on a petri dish, spread over a few square centimeters.

You can look up *Agrobacterium*-mediated Transformation, Gene Gun (Biolistics), CRISPR/Cas9, RNA Interference (RNAi), Marker-Assisted Breeding, to learn specific methods.

These transformed cells can then regenerate into whole plants through tissue culture techniques. This involves providing the appropriate hormones and nutrients to stimulate shoot and root development.

These transformation techniques are similar to adding another set of instructions to the nucleus. As this gene sits next to all the other dna in the nucleus. We “hope” and expect that the cells will continue on with their normal processes and “accept” this new sequence and produce the corresponding amino acids/proteins/enzymes encoded within the instructed blueprint. Based on the order of production, amino acids should fold into proteins that express the same characteristics as the plant we copied its code from.

Some of those cells we introduced the new sequence into will die, but the cells that live will grow as their normal self, but with a new additional trait. It's like speeding up a natural method of plant adaptation.

The whole goal is to stay ahead of the constantly evolving problems in agriculture. Which include herbicide resistance, droughts, and pest resistance. As weeds evolve, they become more evasive, and harder to kill, they spread fast and take over. Without a sufficient amount of herbicides, they weeds spread rapidly, becoming increasingly resistant, and uncontrollable. Farmers are always trying to maintain control, and that requires the use of pesticides. Nature is always evolving, so weeds and pests have become a never ending battle that will not allow for the discontinuation of pesticides.

The goal of advancing agriculture is not only to manage weeds, farms are also in business to make better products. Whether that be higher yielding, higher efficiency, or higher quality, better performing crops allow humans to return more land back to nature. Allowing for more biodiversity, more pollinators, more wildlife, healthier soil, efficient water usage, reduced carbon emissions, food security, improved nutritional content, along with a reduction in labor, time, and cost to gather food.

Crops are clearly having a hard time, and our society is fighting against a decrease in efficiency. Resources just become more expensive the more obstacles and challenges we put in the way. Some people blame that inefficiency on global warming, climate change, consumer choice, labor shortages, supply chain delays, or governmental policies.

The solution to this problem is making more... to make up for all the loss that inevitably WILL occur. GMO's are THE technology that makes this possible. In 1960 the average corn yield was 55 bushels per acre. Since the implementation of GMO technology, the average crop yield for GMO corn went up to 176.6 per acre in 2017.

The interesting exception is that non-GMO traditional breeding corn has shown similar results in optimal controlled setting. So why is there still a push for GMOs? Consistency, because unpredictable weather climates happen, and maintaining specific conditions takes a lot of additional careful resources.

Without resistant traits, crops lose production potential year after year due to an accumulation of infestations, competition, and stressors. Farmers are oftentimes willing to take that risk because Non-GMO seeds are cheaper, and they can avoid technology fees associated with GMO traits. Consumers are also willing to pay more for non-GMO crops because they are in high demand for organic markets, so farmers are enticed to diversify the crops on their land to give themselves the best return on their time and money invested.

As you can imagine, it would be possible to grow exclusively non-GMO, or even GMO globally, however, it has not been done yet, and will never be done singularly because of potential monopolization, cultural impact, ethics, trade dynamics, public health, food security, biodiversity, cost, regulatory labeling, environmental risks, and many others.

Hypothetically speaking, the world would not benefit from one over another. It's the balance between the few that keeps everything in check and in natural order. Regardless of what sector you examine, it's clear that problems exist. Crop yields are taking a big impact from weather fluctuations. Call that global warming, climate change, or our fault, there is a direct correlation that the prolonged high temperatures, droughts, heavy rainfall, flooding, melting ice caps, carbon dioxide levels, and water availability are negatively impacting crop life cycles.

If a plant goes even a week without rain, the seed yield goes down. Once you get to 2-3 weeks of no rain, the plant takes a significant toll, and the seed production decreases. For corn, this would result in smaller ears of corn, less filled out kernels, less sweet, and lower nutrient quality.

We know that global warming is negatively affecting seed production because of statistics that show a decline in 4% production in the US per degree Celsius of global warming (journal Proceedings of the National Academy of Sciences (PNAS)).

The USDA reported that during the severe drought of 2012, corn production in the US fell by approximately 13%, which amounted to nearly 1.6 billion bushels as compared to the previous year. Even though 2012 was a unordinary event. There is still an estimated yearly increase in corn production loss of approximately **8.68 million bushels**.

Hannah Hickey, University of Washington
NASA Climate Change Impact
PNAS Study
USDA Crop Production

Another example of the damage climate change has caused is the expansion of deserts in every region around the globe. For example, the Sahara Desert has expanded by about 10% since 1920. This growth has been influenced by both natural climate cycles and human-caused climate change. Natural climate phenomena like the Atlantic ocean multi-decadal temperature oscillation accounts for about two-thirds of this expansion, while human activities contribute to the remaining one-third. This expansion has significant impacts, particularly in the Sahel region, where it leads to the loss of arable land, increased droughts, and greater food insecurity. (lifesciences.com [Mindy Weisberger](#), ecowatch, earth.org owen muhlern)

This loss of arable land is occurring all over the world. Although it may seem like the US is sustainable, it actually imports 15% of its food supply each year. That includes 94% of fresh fish, 55% of fresh fruit, 32% of fresh vegetables, and a majority of coffee, tea, nuts, and cocoa.

In return, the US exports their agricultural products abroad, which amounted to \$177 billion in 2021. These US exports are just over **20%** of what it produces, far outpacing the amount of exports from the world's other top agricultural producers (China and India), whose agricultural goods are focused more on addressing domestic needs.

The reliance and dependency on other countries is necessary to allow for consumer choice and variety. Being a global leader also offers stability, trust, respect, and influence as someone who is reliable and worth making agreements with. Look at how countries fight for crude oil, resources run out eventually, so it's important to be strategic in all industries.

By building relationships with other countries we also become economically efficient as we utilize each nation's competitive advantage and resource access to diversify risk. When domestic markets slow, international partners in different economic cycles readily make deals, driving economic growth as businesses expand into new markets.

While the US theoretically could produce enough goods and products to supply the entire country, it faces limitations due to growing seasons, especially when you consider climate change. Therefore, importing fresh food from other countries is essential.

The US can't grow as much fruit as it used to because of global warming. Believe it or not, some plants need long winters to produce fruit. For example, states in the southern US, grow certain apple varieties, that are beginning to struggle due to their need for a dormant season, that they are not getting.

These trees require a distinct period of cold weather to reset their biological processes. This sets the stage for fruit development. As temperatures rise in the spring, apple trees are signaled to start producing fruit buds. Conversely, the cooling temperatures in the fall prompt the trees to mature the fruit and allow ripening. This process prepares the seeds for survival through the harsh winter conditions.

The cold exposure triggers a dormancy mechanism, which is crucial for preventing premature seed maturation. During this dormancy period, the seed's metabolic activities slow down, allowing it to progress through its natural developmental phases at a controlled pace. This adaptation ensures that the seed remains viable until conditions are favorable for germination.

This dormancy trait is an evolutionary adaptation to colder climates where plants like oak trees and apple trees originated. Acorns and apples have developed this mechanism as their way to survive. In contrast, tropical plants like orange trees, adapted to warmer climates, do not require a dormant period as their environment supports year-round growth cycles. However, these tropical plants are not equipped to handle harsh winter conditions and will die if exposed to prolonged freezing temperatures.

The cycle of a dormant seed is only for adaptation reasons to the environment. Since these annual producing fruit trees have adapted to the cold, they actually require a cold season, to repeat the cycle, otherwise they will not be able to start their next reproductive cycle.

Dormancy is carefully regulated and has a required waiting period, ranging from a few hundred to a few thousand hours of winter chilling below 45 F. This is to prevent seeds from germinating prematurely in harsh or unsuitable conditions.

Like in our modern winters, we might easily get 50F days. Trees don't want their buds to sprout upon the first warm day, and refreeze because then it has to wait until next year to try again. This system acts as a safeguard, ensuring that the plant experiences a sustained period of cold before responding to environmental cues like temperature, moisture, and light to stimulate growth. This system provides an additional threshold that must be met, ensuring that the plant only begins its growth cycle when it is truly safe to do so.

We want our seeds to hold back as long as they can, but also sprout the last day of winter. The precise timing of these biochemical processes is crucial, otherwise if buds open too early, they risk damage from frost or desiccation (loss of moisture). Once damaged, these buds will not produce fruit for the year, as they are formed only in the fall. This annual production cycle means that if the buds are lost, the opportunity for fruit is lost for that year. Therefore, the physiological events must mature sequentially and correspond with environmental cues to ensure that the growth process begins at the optimal time.

Buds contain embryonic leaves, stems, and flowers that contain protective layers to shield the delicate inner tissues. Throughout the winter, buds lay dormant at the tips of the branches for months over the winter. They are formed by the systemic signals caused from the shortening of days and dropping temperatures. Incentivizing the movement/inactivity of plant hormones like auxins and cytokines, which have multiple roles, coordinating processes such as cell elongation, phototropism (growth towards light), root and shoot development, and the formation of lateral buds.

During the fall, the tree undergoes a process called hardening off, where the cell walls in woody tissues thicken, making them more resistant to freezing temperatures. Before the leaves drop, nutrients are reabsorbed and stored within the tree, helping it conserve water and energy throughout the winter months.

When leaves drop, it is part of a natural aging process called cellular senescence. Trees with the highest sugar concentration, reveal the most vibrant colors of red, yellow, and orange because retain their leaves longer and accumulate more chlorophyll, carotenoids, and anthocyanins as they break down, which are organic pigment molecules

Maple trees, have the highest abundance of sap stores in the roots, with a ratio of 40 gallons of sap boiled down to 1 gallon of syrup compared to 100/1 ratio for birch trees. On days where there are freezing nights (sub 32), then thawing quickly in the day (40 F) those sugar nutrients rush to the branches through the phloem, due to pressure differentials which gives humans optimal conditions for sap collection.

Many of these biological processes have evolved to give the seed a higher likelihood of survival. Whether it be dormancy, seed coating, nutrient storage, checkpoints, or dispersion, plants adapt by natural selection, because the only seeds that survive and spread are the ones that had mutations that were beneficial.

Some examples of dispersal methods like fibers, wings, hooks, and adhesives that were carried by wind and animals. Other methods involve edible fruits and grains. Unripe fruits are often bitter to deter animals, as the seeds are not yet mature enough to leave the parent tree. Once the seeds are mature, animals are attracted to the texture, sugars, or flavor. The seeds can pass through their digestive system and relocate.

These are the underlying benefits for the tree to create a fruit around the embryo, which also serves protective functions such as providing a buffer against physical damage and providing a layer of defense against pathogens.

During all of these dispersal methods and waiting periods, seeds remain dormant hoping they are transported away from the parent plant, increasing the chances of colonization in a new, potentially more favorable location with less predation.

Humans just so happened to take advantage of this phenomenon and capitalize on it, and turn it into a commodity. Using seeds, grains, fruits, roots, stems, vegetables, and leaves as our basis for a balanced diet.

The highest produced foods globally include sugar cane (1.86 billion tons), corn (1.2 billion tons), wheat (789 million tons), rice (741 million tons), potatoes, soybeans, tomatoes, cassava, barley, and sweet potatoes, the list goes on. The highest produced goods are processed into products like **Sugar**: 1600 million tons, **Flour**: 600 million tons, **White Rice**: 500 million tons, and **Corn Syrup**: 300 million tons. There are of course many other products but start comparing these numbers.

Processed

- Molasses: 150 million tons
- Cane sugar ethanol: 110 million tons
- Cornmeal: 600 million tons
- Corn syrup: 300 million tons
- Corn oil: 100 million tons
- Corn ethanol: 210 million tons
- White rice: 500 million tons
- Brown rice: 150 million tons
- Rice flour: 90 million tons
- Flour: 600 million tons
- Wheat bran: 100 million tons
- Wheat germ: 50 million tons
- Soy milk: 150 million tons
- Tofu: 100 million tons
- Soy sauce: 70 million tons
- Soy oil: 33 million tons
- Tomato paste: 80 million tons
- Tomato sauce: 60 million tons
- Cucumbers: 85 million tons
- Cabbage: 71 million tons
- Eggplant: 55 million tons
- Carrots: 44 million tons
- Peppers $\approx$ 36 million tons
- Beans $\approx$ 28 million
- Lettuce $\approx$ 27 million tons
- Spinach $\approx$ 26 million tons
- Zucchini $\approx$ 25 million tons
- Beets $\approx$ 24 million tons
- Peas $\approx$ 21 million tons

White Potatoes: 357 million tons

Sweet Potatoes: 108 million tons

Avocado $\approx$ 6 million tons

Nuts $\approx$ 4 million tons

Fruit

- Bananas: 153 million tons
- Oranges: 75 million tons
- Grapes: 77 million tons
- Apples: 87 million tons
- Coconuts: 61 million tons
- Mangoes: 56 million tons
- Pineapples: 28 million tons
- Strawberries: 9 million tons
- Pears: 23 million tons
- Blueberries: 1 million tons
- Raspberries: 0.8 million tons
- Pomegranates: 3 million tons
- Grapefruit: 6 million

Grain

- **Corn** $\approx$ 1,210 million tons
- **Soybeans** $\approx$ 353 million tons
- **Wheat** $\approx$ 789 million tons
- Oats $\approx$ 25 million

Vegetables

- Canned tomatoes: 40 million tons
- Sugar beets $\approx$ 250 million
- Onions: 93 million tons

Meat

- Pork $\approx$ 110 million tons
- Chicken (Poultry) $\approx$ 133 million tons
- Fish/Seafood $\approx$ 127 million tons
- Beef $\approx$ 71 million tons
- Lamb and Mutton $\approx$ 9 million tons
- Goat $\approx$ 5 million tons
- Turkey $\approx$ 6 million tons
- Duck $\approx$ 4 million tons
- Buffalo $\approx$ 4 million tons
- Rabbit $\approx$ 1 million tons
- Other Meats (e.g., Game, Exotic): $\approx$ 2 million tons

Animal products

1. **Chicken Eggs** $\approx$ 82 million tons
2. **Duck Eggs** $\approx$ 4 million tons
3. **Other Eggs (e.g., Quail, Goose)** $\approx$ 1 million tons
1. **Cow's Milk** $\approx$ 682 million tons
2. **Buffalo Milk** $\approx$ 128 million tons
3. **Goat Milk** $\approx$ 19 million tons
4. **Sheep Milk** $\approx$ 10 million tons
5. **Camel Milk** $\approx$ 3 million tons

Now, this isn't a perfect total but of the categories listed you can see that some are weighted heavier than others.

According to FAO data, the total global production of Fruits $\approx$ 883 million tons ($\approx$ 15.9%), Vegetable $\approx$ 1.1 billion tons ($\approx$ 19.8%), Grains $\approx$ 2.3 billion tons ($\approx$ 41.4%), Meat $\approx$ 337.2 million tons ($\approx$ 6.1%), Eggs $\approx$ 87 million tons ($\approx$ 1.6%), Dairy $\approx$ 842 million tons ($\approx$ 15.2%).

In the grain market 60% of corn, 75-80% of soybean, and 20% of wheat goes into animal feed. It's not perfect for livestock, because it causes digestive issues, but it acts as a great filler, because it leads to fast weight gain. Grains are a very land efficient way of producing calories, but they aren't good for humans either, especially once we refine them.

Once we separate the bran and germ, from the endosperm we increase its palatability, shelf life, and cost. This refinement is what most people prefer especially when it comes to bread, pasta, chips, crackers, granola, cookies, cakes, muffins, pancakes, sauces, popcorn, tortillas, and dough.

Of course it tastes good, but refined grains are easily overeaten, which leads to long term health issues. Small occasional portions are okay, but eating them everyday is not. In our modern world, there is not enough "HEALTHY" food to go around. Mass production farming is necessary to feed 8 billion people.

Imagine a society where there were no GMOs, well, rough estimates on ChatGPT calculate that over a billion people will not be fed. Now, imagine a society where there were no corn or wheat products... ChatGPT estimates that over 7 billion people would not be fed.

Regardless of the history of the use of processed food and its relevance to WW2, society simply could not have grown to its current size without them. Nobody ever made a claim that processed foods were healthy, but rather that they could be a part of a healthy diet.

In reality, processed foods exist out of convenience and availability, but that doesn't mean that YOU have to eat them, just because the rest of the world does. Freewill and independence exist. That means that you have the choice to choose from a large variety of global abundance. There is enough waste happening at the grocery store level that you can be selfish and buy more whole unpackaged foods!!!

It's a blessing to know that we can change what we eat. We can each individually take initiative and be a part of the select few who actually buy whole foods!!! It's a limited time opportunity, only available up until the point when everyone else catches onto the health trend.

So far, nobody else seems to care... I don't know if it's a lack of information, discipline, understanding, or belief in "cause and effect", but I offer the opportunity to change.

You can see that in walmarts FY 2023, grocery items accounted for \$247 billion of Walmart U.S. sales, representing the largest category within Walmart's income.

Dairy: \$60 billion, **Meat and Seafood:** \$35 billion, **Fresh Produce:** \$30 billion, **Snacks (including chips, cookies, etc.):** \$25 billion, **Packaged Beverages:** \$20 billion, **Frozen Foods:** \$18 billion, **Breads and Bakery:** \$15 billion, **Dry Groceries (including cereals, pasta, etc.):** \$12 billion, **Condiments and Sauces:** \$10 billion, **Canned and Packaged Goods:** \$8 billion, **Other Edibles:** \$4 billion. (Nielsen, IRI, or Euromonitor)

You can see that processed foods dominate the food sector, not because the companies force us, but rather we see them as tasty and convenient. The statistics reflect our purchasing decisions! Highlighting what we as the customer finds worthy and acceptable. We act as "natural selection" by selecting products that favor our interests.

Sales data tracks our purchases. Companies that are chosen get rewarded monetarily. That purchase feedback indicates they are either doing something right or wrong. By adapting to styles that match the designs, flavors, price, location, packaging, naming, and familiarity of your purchases, companies can create successful products similar to your previous choices.

This is marketing, businesses chase our desires and fill these categories with more options for you to pick from. This is how companies stay in business. Fulfilling customer wants and needs is the strategy. If we want flawless produce with no imperfections, and if that's all we will pay for, then that's what we will get. Companies cannot risk their reputations of selling a bad product, because if you keep picking up the same brand and there is always a bruised, damaged, unappetizing product inside, then you'll stop buying from them.

Maybe that's why our culture keeps buying processed foods because we know it will always have a consistent predictable look and taste. By choosing consistency, we reduce the risk of disappointment, and in that choice, we trade our autonomy for a simple life. Minimizing surprises, gives away the responsibilities of needing to plan, prepare, and budget. Encouraging us to choose prepackaged meals and snacks instead.

This mindset is degrading our quality of life by creating a culture that values convenience over confidence. We are disconnecting our knowledge from our real-world experiences, deactivating our independence and intuition.

In order to regain that independence and resist the marketing temptations, we have to prepare with the knowledge on how to stop wasting, and how to streamline our decision making process. Your confidence starts when you see the list of effective solutions.

- Shopping list
- Meal planning
- Plan for perishables
- Be mindful of expiration dates
- Monitor food inventory
- Smart cooking practices
- Use the whole ingredient
- Zero-waste cooking
- DIY food scrap recycling/infusion
- Reinvent/upcycle ingredients
- Host a food swap
- Preservation techniques
- Composting
- Freezing
- Utilize leftovers
- FIFO – first In First Out
- Portion control
- Proper storage
- Donate excessive food to animal sanctuaries, food pantries
- Share with friends or neighbors
- Educate friends and family

This is an extensive list of solutions to standardize freewill and the mindset needed to make moral choices during grocery shopping, home storage, and disposal. This guideline acts as a reference for healthy behaviors associated with the weekly cycle of food consumption.

We all want autonomy, and freedom, but we don't want to do the prep work. We leave many of our choices undecided until the moment it happens. This impulsiveness usually results in unforeseen events that are uncorrelated with our goals, because we assumed our freewill would make choices on the behalf of our "best interests".

Yet, we continue to rely on impulsiveness, rather than creating mental barriers to prevent the perpetual cycle of poor decisions. You have to have clear borders that leave no room for interpretation because guidelines that are predefined are unlikely to be tested or persuaded.

Everytime we allow room for error, weakness will get selected over self-discipline. Nature of marketing is to take advantage of those who are susceptible. So you cant hesitate during your “refusal”, because with one final push, you’ll get easily convinced.

Your mindset requires a strong foundation to hold onto its values when the “cons” become unclear. So, you have to take every opportunity you can get to strengthen your willpower, and control your ability to overcome mental and emotional challenges.

Decisions are complex especially with all the scenario based considerations you are analyzing, but imagine having a moral guideline that maintains standards, and a set of instructions on being decisive and assertive towards your own self.

The peace of mind comes at the risk of trading freedom of choice for the self-obligation to obey the commands you agreed upon. Obeying simple promises reinforces your self-worth, as you match your identity to the reputation that you want to be known as.

Freedom allows for inconsistency, which disrupts the stability to routines, and introduces a state of self-doubt, as you constantly change your mind. This eliminates your daily reference point, causing you to search for new benchmarks and indicators of happiness.

We all need a place to go “home” to. Going somewhere new everyday does not give us safety, familiarity, or identifiable gratification. We need a clear indicator that what we are doing has promised rest, recovery, relaxation, and contentment, yet our current habits rely on subjective beliefs that this choice was “good enough to make us happy”.

We have to have a daily practice that brings us to a state of calm. This is usually a moral choice that reminds us that we are doing the right thing for our body. It’s like the reassuring feeling that we are obeying the rules that we believed would help achieve our goals.

Eventually our spontaneous thoughts will cause a conflict with those self-inhibitory guidelines, and we will have to make the personal choice on whether or not we should enforce compliance or allow a more broad level of freedom.

This mindset is where you find your weaknesses. As you learn how to make sacrifices for your desired quality of life, you will unintentionally find your hard set beliefs, and situational opinions. Each situation brings you closer to a state of certainty and confidence.

The goal is to simplify complex decisions and make difficult choices effortless by shaping our identity, and knowing our limitations beforehand. This self-awareness leaves no room for doubt. It’s almost as if the predetermination of wants and needs guides your attention towards the desired outcome.

Impulsive pleasure seeking usually distracts from the goal, and gets triggered by inconsistent passions. This mindset is an UNAIDED exploration of possibilities that you have considered. So in order to define a planned goal, you have to narrow down your choices into hard NO’s and MAYBE’s, then review the patterns of your WHY NOT’s.

This gets you so close to a set of standards, requirements, expectations, and preferences. Then you can accept the work and responsibilities as a meaningful tradeoff, rather than a waste of time. It’s like we intuitively know if something is worthwhile based on how enjoyable it is.

That moment of appreciation vs disappointment is how you determine if something has value to you. Many choices cause more regret than pleasure, and that's usually the deciding factor on if we stop the behavior from becoming a habit.

It's that level of happiness, pleasure, excitement, and fulfillment we get that determines our commitment to any goal. This perspective is dependent on the difficulty we feel during the transition stage. So adjust slowly, and don't make yourself miserable. Try a new method once a week, and see if the new strategy helps, or adds more work.

There is no established set of foods you have to eat everyday, because not one food is mandatory. There is no superfood, fancy concoctions, home remedies, supplements, or detox that you need to have. Even though it may provide a small benefit, nothing is going to have the same benefits as eating whole foods.

You just can't replace the natural variety of a healthy balanced diet. Whole foods just contain so many essential nutrients that you can't find in processed foods. It's this accumulation of vitamins and minerals packed in the food we eat that enhances our cell biology.

Our body is like an ecosystem, where each individual cell plays a crucial role in overall health. So in order to do their proper "job", they each need the resources required to get the job done. Even though we are giving them CALORIES, we are not providing the tools, materials, equipment, or xyz TO work.

Cells can't complain for not being fairly compensated, but if they don't have the appropriate tools available, then they simply can't function. Each category of cells require a different combination of nutrients.

For example, muscle cells can have thousands of mitochondria to meet high energy demands. Plasma cells can have a vast network of rough ER encompassing much of the cell's volume. Liver cells contain extensive smooth ER for detoxification, sometimes making up more than half of the cellular structure. Secretory cells in glands, such as those in the pancreas, may have multiple large Golgi apparatus. Macrophages can contain hundreds of lysosomes due to their role in breaking down foreign materials. Skeletal muscle cells are multinucleate, containing several nuclei along the periphery of the cell. The cytoplasm in amoeba can expand and contract significantly, allowing for movement and feeding. Hepatocytes in the liver can have numerous peroxisomes due to their roles in metabolism and detoxification.

Mitochondria requires Magnesium and B-vitamins. Rough ER requires more Vitamin K, and calcium. Smooth ER requires Phosphorus, and cholesterol. Golgi requires Copper. Lysosomes require Zinc. Muscles require Calcium and Magnesium. Cytoplasm requires Potassium, Sodium, and Peroxisomes require Copper and zinc.

Cells are constantly adapting and need a resupply of these nutrients. Each element, compound, vitamin, mineral, and electrolyte has a different function in the body as it interacts with others differently.

Many vitamins (such as vitamin B-complex) and minerals (like zinc and magnesium) are essential cofactors or components of enzymes. They help catalyze biochemical reactions, including those involved in metabolism, DNA synthesis, and repair, thus ensuring proper cellular function.

Minerals like calcium and phosphorus are critical for building cellular structures, especially in the construction of bone and teeth. Calcium also plays a significant role in other cellular processes, including muscle contraction and nerve transmission.

Vitamins like vitamin C and E function as antioxidants. They help protect cells from damage caused by free radicals, which are unstable molecules that can harm cellular components and contribute to chronic diseases.

B vitamins are integral in metabolic pathways that convert nutrients into energy. For example, riboflavin (vitamin B2) is a component of FAD and FMN, which are coenzymes involved in oxidative energy production. While minerals like potassium and sodium are vital for maintaining cellular membrane potential and conducting nerve impulses, essential for muscle function and heart rhythm.

Each cell's optimal function ensures that the tissues and organs made from these cells function properly. Healthy cells mean slower aging processes, extended healthy lifespans, hunger cue regulation, efficient energy and nutrient utilization with proper hormone responses, fewer mutations, and better repair mechanisms, lowering the risk of cancers and other diseases.

Our goal should be longevity, but we forget that everything we do accumulates IN the body. Even though a human is 16,700,000,000 times bigger in volume than a cell, and struggling may not be visible at our level of perception, we are still being affected.

Especially if all 37.2 trillion cells are being negatively impacted by a bad diet, the body is not going to take long to deteriorate, but that also means it's not going to take long to improve... The reason we should start NOW is because of the aging process.

Each cell in the body (excluding some neurons and lens in your eyes), goes through cellular turnover. Some cells have a higher rate of regeneration than others. For example, liver proteins have a turnover rate of every hour. Muscle proteins are replaced every 2-4 weeks. Tendons take 4-6 weeks. Bones take 6-8 weeks. Ligaments take 10-12 weeks, and connective tissue (collagen) has a turnover rate of around 100 days, because it's non-vascular, meaning there's no blood supply running next to it, and it's aneural, meaning no nerves supply, so it takes a really long time to heal. This renewal process is continuous across your lifespan, so by the end of 7 years, a majority of your cells will have been replaced, and you will essentially have a whole new body!

Each time a cell divides, it has to make a copy of the DNA. This process of copying DNA is crucial but also introduces the potential for errors over time including copy errors called mutations, and another process that slightly shortens the cell's telomeres with every division, gradually leading towards the cell's division limit.

Some cells may reach up to **60 divisions** before they reach “senescence”, the state where they no longer divide. Some specialized cells, like certain stem cells or cancer cells, can divide many more times, or even indefinitely. However, it appears that this is the LIMIT, we CAN’T extend our life, but we can slow the aging process to ensure this cell division happens as little as possible.

An unhealthy lifestyle of smoking, drinking, sedentariness, bad diet, carcinogen exposure increases the rate of cellular turnover which subsequently takes years off of our maximum lifespan, and decreases our quality of life along the way.

Cellular damage is progressive and accumulative. The weaker our body gets, the harder it is to recover, and restore our full health. So as you learn more about epigenetics, you start to realize that every choice you make, is a reflection of the mindset that you choose to have towards your quality of life.

We all have the option to continue our daily habits or change them. A healthy lifestyle includes more than just the food we eat, because your mindset is also influenced by career, social status, relationships, exercise, sleep, stress, smoking, and drinking. Everything you do should contribute to the mindset of self-improvement, but our actions don’t represent that.

Of all the culturally acceptable behaviors, you’d be surprised how detrimental a poor diet is to your quality of life. The choice to continue to eat unhealthy is a character trait that implies you value immediate gratification, selfish pleasure, and momentary satisfaction over long term fulfillment. It’s like a form of greed and desperation.

Nobody would ever hold a grudge against you about these behaviors because these common unhealthy habits are so acceptable in society, but imagine unhealthiness was frowned upon as much as lying, stealing, cheating,

People would view your behavior as a threat to their safety, and you would seem immoral, selfish, and sinful for putting your own “life” at risk for the feeling of impulsive pleasure, and momentary reward.

It’s such a high risk activity to be in the mindset where you would trade all of your freedom for the possibility of getting what you want right now. Your reputation around others seems to be the one caveat that dictates all of our decision making, and determines our willingness to act on or pass up an activity.

Once you see that sedentariness, poor diet, selfishness, and pessimism give you the lowest quality of life you could ask for, you’ll begin to make the choice to search for opportunities that get you out of the situation you are in now.

“How others see you” depends on the mindset you have about your own situation. “How you see yourself fitting in” is your belief system, on which social norms you think you have to comply with in order to be included.

It might have sounded like a crazy example, but our “level of comfort” is based upon the social expectations that have been rumored to be allowable. Of course, rules, laws, regulations, enforcement, guidelines, and standards have been put in practice to protect individuals from exposure to threats, and xyz, but some of them are subjective. The age of drinking, smoking, vs allowing people to drink or smoke at all.

What if we took it as far as not allowing people to eat unhealthy? People would be upset, and businesses would fail, but theoretically we would be protecting society from “hurting” themselves. As you get closer to opinionated truth, by allowing personal choice, preference, and subjective opinion to moderate the availability of products, services, then you get a society like we have now where pessimism and complaints maintain control because the choice to be healthy gets hidden in the abundance of unhealthy options.

As the truth becomes covered, extreme viewpoints get criticized, mocked, and dismissed as unrealistic. People are given the choice to live life the way they want to, even though it may be at the detriment of their personal relationships. This freedom of giving people the choice to slack, allows for a majority of the population to stay average, just like you’d expect.

People separate into their groups, and spend each day “trying to get by”, as they look for a way to live the optimistic, happy, proud life they want to. Society sets us up with lots of freedom, and we take it for granted. This social dynamic gives people who want OUT an easy way out.

Making the reputation to be different, easy to build, and easy to maintain. Stepping out of comfort seems to be the only barrier to the LIFE we want. Of course it takes continuous practice, and commitment, but the lifestyle is just on the other side of that barrier in the mind.

Once you’re in the mindset, you see more opportunities become visible. Simply because you start to look for them. As your mind shifts towards progression and improvement, it becomes easier to notice the things that could be fixed. In that moment of finding something, inspiration sparks, and creativity starts! You begin considering new alternatives, brainstorming new ideas, and you tap into a new phase of life that drives the exploration of new opportunities available to you.

The goal in life is to get closer and closer to the lifestyle that you want to live. In order to even feel comfortable settling with an idea, you have to explore dozens of options, and learn the benefits and drawbacks. Clearly there is a reason you do things the way you do them, but have you considered all the different alternatives? How can you find a healthy balance without experimenting with the pros and cons of each choice?

Ignorance and naivety may have been helpful to get you where you are now, but the world is too complex and interesting to stay where you are. There is too much left to learn, so you might as well take the time to understand the options better.

It doesn’t matter what you’re focused on, but focus on something. Your ideas and goals will change over time, but filter your likes and dislikes, and consider learning more before you say NO. Until you’ve tried it, you’re not going to know what it’s like.

Build relationships along the way as you gather information, ask people about their experiences and opinions with this thing. Ask if it is something that they found useful, and then figure out WHY or WHY NOT. Allow your interests to guide you towards an answer where you feel comfortable enough to settle for a while.

Then redistribute all of your efforts into another area of life once that area of your life is established. Study nutrition, careers, relationships, confidence, and creativity, they all lead towards a healthy lifestyle.

Look for things you can get better at. Those goals should be your aim, because they are obvious areas of life that you can improve. It's so important to make 1% improvements everyday, because it's those things that compound over time to change your life.

It all starts with the willpower to work on something you know you already should be. All you have to do is START on it. Nobody expects you to finish it, because they don't even know you're working on it yet.

Nobody has to know you're practicing and learning, but as soon as you tell someone, you're going to get encouragement and xyz. People want to see you succeed and try something new! We all want to see you improve and develop, and it's fun for us to watch your progress.

Everyone wants to see who you become, so we hate when we see that you're staying stagnant. Nobody cares that it's embarrassing for you, because we want to see the people around us chase their goals because it inspires us to do the same!

Just recognize that you're not going to be perfect at the beginning, but as you get further, and learn new styles, combinations, techniques, and forms, you'll come up with your own favorite design that represents "who you are".

Give us an idea of "who you want to be known as", otherwise we will only be able to make assumptions. Then as you are building your reputation and personal brand, you will slowly start to get to know yourself better through trial and error, by watching yourself from an outside perspective, and then purposely making adjustments towards a set of character traits that closely represents how you feel on the inside.

This practice of self improvement truly just makes you more personable, and relatable. So as you develop your mind, you become more creative in how you express your thoughts. Giving us a better mental image and understanding of the words you were trying to get across. The more you practice the easier your intentions will be known.

As a result, we understand you better, and you become more confident, and comfortable being "yourself", but you have to get to know "yourself" first because communication is the hardest part of sharing ideas.

"You are the ideas you want to get across". Your passions, beliefs, values, interests, pastimes, memories, preferences, stories, motivations, desires, ambitions, fears, challenges, standards, expectations, self worth, mistakes, failures, attempts, habits, responses, abilities, judgements, opportunities, comments, and realizations, all combine to make you who you are.

It takes a positive healthy mind to grow from these, and to take time to recognize and be mature about it. That practice of going over these is the healthy mindset it takes to grow. It takes time to reflect and review what “could and should” be different.

This consideration is the practice of creating small goals. So in the act of being self aware, you will approach new situations with mindfulness of past mistakes. Self improvement usually implies growth, so in order to build small victories, all we have to do is prevent ourselves from repeating the errors in our judgment that keep holding us back.

It's like we keep holding onto the beliefs that we have insecurities, self doubt, anxiety, fears, negativity, bigger goals, failures, shortfalls, and setbacks, and it's this exact mindset that holds us back from just doing what we know we need to do.

The barrier to self-growth lies in accepting that this is “who you are”, so be proud of it. Nobody is making you think this way. So get out of your head, stop overthinking it, do what you know you need to do, to get the job done, and remember that nothing else matters.

Then do everything with your highest moral values, and be Trustworthy, Honest, Loyal, Respectful, Humble, Genuine, Transparent, Responsible, Hardworking, Helpful, Patient, Grateful, Positive, Confident, Curious, and Talkative. These character traits are your foundation. Anything that happens after that is out of your control, and not your fault. So focus on what is in your control, and remember that all you can do is the “best that you can, with what you know.”

There is no perfect lifestyle that gives people motivation, happiness, and confidence because these are literally just a mindset. It's “a way” of looking at yourself and the world around you. So even though you may be fighting challenges on your journey, it's still your responsibility to pick healthy options when the situation allows for freedom of choice

Of course freewill makes it challenging to stay disciplined, but the feeling of achieving your personal goals will provide clear proof that you are making progress towards self-improvement. That internal reward is what builds the mindset you're looking for.

The goal is to guide your daily effort towards areas of life where you can make progress. That takes drive, passion, excitement, determination, and resiliency to continue taking the initiative every day. All it takes is consistency.

Yet, it's that exact feeling of going ALL IN, that we are afraid of, because we know that once that happens, we will reach a point where we start to make choices that trade “what we use to enjoy”, for “what we need to start enjoying”.

It's like we are afraid of the best case scenario because we know it will happen. Going through change and transitioning scares us because of the possibility that if we fully commit, and go a day without what we want, then that would imply we would have to go a full day without getting any pleasure.

That anticipation of wondering how difficult and overwhelming it will be prevents us from starting at all. It's like our mind is causing us pain before anything has happened yet. Fear is self-created, and it's holding us back from doing the simplest SHIT.

Yet we avoid trying because it might cause discomfort. Well that is such a BITCH excuse. You're seriously telling me that you feel threatened by change? What's the worst that could happen to you? The only reason these negative thoughts are occurring is because you won't just try it ONCE.

Go a whole day without eating processed carbs. Sure you're going to crave it, but it's not going to be miserable. Who knows, you might actually enjoy the confidence you got from trying it! That's why people say to "get out of your own way", and "get out of your head," because they have been in a similar situation, and realized after giving yourself a challenge, it actually turns the task into a game.

The fear creates a competition against yourself. It's the offering of a small obstacle placed in front of you that you can accomplish to keep life interesting! Achieving these small wins builds so much confidence and allows you to truly feel motivated!

Once you learn how to be consistent with this mindset, you realize that the only reason you felt trapped and depressed in the past was because you were holding yourself back from accomplishing the small goals that you really wanted.

Discipline comes down to finding the smallest goals you can think of. Then, slightly adjusting it in a way that makes you proud of yourself. Nobody is expecting you to get up at 5am to go on runs, or drink a gallon of water a day unless you want to. You don't have to be strict when you introduce healthy habits, and you don't have to eliminate all sweets.

Any habit starts off as a simple introduction, then as you notice yourself feeling better over time, you'll continue to adjust. It takes time, but you HAVE TO START! Who cares if it takes you a year to change, at least you're making progress. You'd be surprised how big a difference, a little change makes.

The first goal you could create for yourself is to STOP overeating. If weight loss is your mission, then this should be the first rule you enforce. Overeating does more than just cause weight gain, it's a behavior that negatively impacts your mindset.

The habit associated with a search for more dopamine. We usually only seek that pleasure when we are bored or feeling negative. So if this is true, then that means that accidentally overeating would bring us back to this low mental state.

Sometimes the food we eat is just too good to stop eating when we get comfortable, this encourages us to take a couple more bites, and that small oversight can often put us in a place of discomfort. Then just as we stop eating, our thoughts become demotivated, deflated, minimal, and gloomy.

It's like a dispassionate state of calm, as if we triggered a state of quietness in the mind. When this happens to me, I feel complacent, and unfocused, with thoughts of discouragement. It puts me in a mindset where I don't push through the quiet laziness, not because I can't, but because my thoughts tell me "I don't need to."

In that moment, I feel down on myself for being unmotivated. That negative thought carries on into my next activity and affects how I interact with others. In my mind, I'll remind myself that I want to be confident, and outgoing, but something about the way I feel causes me to feel uncreative, and uninspired.

That feeling bothers me sooo much because I've been consistently getting better at initiating more passionate and energetic conversations, but when I overeat, my entire purpose seems to weaken, and I lose sight of my goals, passions, and reasons for improving.

It's like I lose the ability to feel shy or anxious, because I become indifferent to what happens. As if I'm in a mental state of dullness because my body is feeling sluggish. So, then as I'm being self aware, and recognizing my discomfort, I'll choose to stay quiet because I don't want to appear as someone who is annoyed or emotionless.

That choice to stay reserved and disengaged is a sacrifice I'm making to avoid coming across in a way that doesn't reflect "who I truly am". In reality, I think we all want to be perceived as nice, respectful, and approachable, but when we constantly experience doubt from self-inflicted stress, then we aren't going to be perceived as the person we want to be.

Being in a good mood is difficult when you're having an internal feeling of uneasiness. Even though you're not trying to be grumpy, or irritated, there is no way to avoid authentic and natural expressions the face and body give when they are in a state of stress.

So no matter how much you want and try to be in a good mood, others will still detect that something is off. These unconscious facial expressions, body language, and choice of words will eventually be picked up on and affect the direction of the interaction.

So if you want to have a meaningful interaction, then you HAVE to be fully engaged, and show signs of deep interest, by showing conversational enthusiasm. Personally, I want all of my conversations to be interesting, and engaging, and I want to be known as the person who inspires passions, and builds stronger relationships over deep interests.

Conversation is what allows me to truly get to know myself better, and inspires me to learn new things. It's important for my self growth, but I can't be fully engaged unless I'm motivated to listen and ask questions. So in order for me to live MY best quality of life, I have to be in a good mood, so that I can connect with others in a meaningful way.

For me personally, the only times I'm in a bad mood are when I'm hungry, low energy, tired, or overfull. It's like I become more irritable when my body doesn't feel good, but that only happens around once a week when I try to be more lenient, and allow myself a cheat meal.

So as soon as I try some processed carbs, I accidentally overeat, which doesn't usually happen, and my body starts to feel drained, sluggish, weak, bloated, heavy, and uncomfortable. Based on the experimenting I've done with food, it seems to be more complex than just overeating.

Every food you eat has a different response on the body. So as you eat, your body is recognizing different nutrients, and responding with dozens of corresponding enzymes to break down that specific nutrient.

Some examples would be a release in Amylase, Maltase, Lactase, Sucrase for carbohydrates. Pepsin, Trypsin, Chymotrypsin, Carboxypeptidase, and Aminopeptidase for proteins. Lipase, Phospholipase, and Cholesterol Esterase for fats. Then, dozens of others for different vitamins, and minerals.

Your body KNOWS what is coming in. The human body is a complex system designed to recognize nutrient deficiencies. So although you may think like you're getting an extensive variety of nutrients, you're probably NOT!!!

I would be willing to bet that each one of us is being influenced negatively by the junk food that we are eating. Even though it may feel like our body is operating like normal, it's most likely not functioning optimally.

When you eat an excessive amount of one nutrient (processed carbs), your organs are going to prioritize the production of enzymes associated with the nutrients signaling their presence. Those enzymes get produced in proportionate amounts, and have a feedback loop on the body.

So not only are you getting an influx of lots of carbs with no vitamins and minerals, but the body is also getting notified that essential enzymes are not being released for necessary bodily processes downstream.

The food you eat SHOULD align with the demands being asked for by the body, but hunger signals are difficult to interpret. We oftentimes just take hunger as a signal to eat, when there can oftentimes be a deeper meaning.

These signals are usually associated with our "emotional cravings". So if you are craving chocolate, you are deficient in magnesium, so then you could eat some nuts, seeds, veggies, or fruit. If you are craving sugary foods you might be deficient in chromium, carbon, phosphorus, sulfur, or tryptophan, so to fix that, you could eat grapes, fruits, cranberries, raisins, sweet potatoes, etc. If you are craving bread, or pasta, you may be deficient in nitrogen, so then you know to eat red meat, chicken, fish, beans, nuts, or seeds. If you are craving oily foods then you might be deficient in calcium, so you could have milk, cheese, or spinach. Lastly, if you are craving salty foods, you could be deficient in chloride, silicon, or salt, so you should either add salt, pickles, cheese, milk, or nuts.

This guide on (<https://www.b12patch.com/blog/6-food-cravings-that-signal-vitamin-deficiency/>) helps you be more mindful, and self aware of your body signals. So although it may be hard to follow this at every meal, and every snack, consciously trying to get in at least one serving of Protein, Dairy, Fruit, Veggies, Grains, Nuts and/or Legumes a day will help reduce the likelihood of becoming deficient from any essential nutrient.

Using an acronym like PDF VGN, can help you remember to hit those categories. With (P)rotein being your main priority, because it makes us feel full the fastest. Then fill the rest of your plate with sources of (D)airy, (F)ruit, (V)eggies, (G)rains, and (N)uts. This variety in whole foods, each packed with essential nutrients is the secret to weight loss, and mental clarity.

Whole foods are “high nutrient dense” foods! This is not the same as “high calorie” such as desserts or fast food. The term “nutrient rich” isn’t referring to only fruits and vegetables. Although I believe our diets should be PLANT DOMINANT. Exclusive vegetarianism isn’t realistic for everyone.

The foods I’m referring to are complex foods like

MEAT

Chicken

Steak

Hamburger

Pork

Fish (Salmon, Tuna,

Crappie, Bass, Catfish,

Trout)

Turkey

Shrimp

ANIMAL BYPRODUCT

Cottage Cheese

Cheese

Yogurt

Eggs

PLANTS

Beans

Lentils

Baked Potatoes

Sweet Potatoes

Oats

Rice

Tofu

Tomatoes

Bell Peppers

Hot peppers

Onions

Brussel Sprouts

Broccoli

Green Beans

Peas

Carrots

Beets

Celery

Okra

Zucchini

Kale

Cucumbers

Avocado

Spinach

Sauerkraut

Coleslaw

Eggplant

Radish

Pumpkin

Cauliflower

Squash

Asparagus

Mushrooms

leafy greens

Milk

Real Cheese

Nuts (Almonds, Walnuts,

Peanuts, Cashews)

Seeds

Corn

Bananas

Apples

Pears

Blueberries

Strawberries

Cherries

Cranberries

Grapes

Mango

Kiwi

Oranges

Peaches

Pineapple

Watermelon

This is the fundamentals of the diet I believe to be “perfect”. Each item has a vast amount of micronutrients packed inside. These are extremely satiating foods that fill you up before you will overeat them. The body has an intuitive response to healthy whole foods that satisfies your hunger in a way that junk food can’t.

I used to be skeptical of the fact that “high nutrient dense foods” were going to fill me up any different than low calorie foods. I believed that no matter what I ate, I would get full after the same amount of food. So I chose to only eat food that I thought was “lower calories”, assuming that I would be able to eat a higher volume of food by the end of the meal.

Except, what I found out the hard way was that even though my stomach was filling up with mass, my appetite and raging hunger was not going away. I trying to go super clean vegan, and have nothing but pure veggies, and 0 calorie sauces. No beans, no processed flour, no corn, no animal products. Literally just cauliflower, broccoli, salads, carrots, celery, cucumbers, and other hard to digest veggies.

I would have 10 salads (no dressing), and still have an appetite for something else. It's like I would eat, and nothing seemed to fill up. My stomach would be full to the brim, but my appetite would never disappear like I expect it to. Almost as if I un-calibrate the hormonal feedback loop, causing me to continue to think I was hungry even though my stomach was full.

I would get extremely bloated, and have a lot of pressure on the walls of my stomach, but I felt like I still needed to keep eating. This taught me that the stretch of the stomach from fiber, water, and mass are not the only things that will not make you feel satisfied enough to stop eating. I may have felt “full”, but I was still unsatiated.

Even though the food I was eating was “nutrient rich”, the body knew that there wasn't enough nutritional value. The nutrients just aren't readily available in the intestine to get absorbed. This means that the molecule is harder to absorb and extract energy from, because the structure of the food molecule keeps the “caloric nutrient” locked up in a network that makes it difficult for the body to extract and break down the food small enough to get absorbed.

This phenomenon is the bioavailability, and foods we consider healthy have a slower digestion rate meaning that the nutrients will stay in the intestine for longer, as it gets pushed down the tube, making it more unlikely for the calorie to get absorbed at all, through the enterocyte in the intestinal wall.

These unabsorbed food molecules get classified as undigested, and the calories end up in your stool. Most of the food we eat has to go through this digestion process, where food is either broken down small enough to absorb calories through the intestinal wall, or the molecule stays too big and never gets absorbed.

The intestinal wall is ≈ 26 feet, so the molecules have time to be broken down slowly over time and still get absorbed. So, by the time the foods gets to the end, you absorb 85-95% of whole foods, the other 5-15% is feces. While processed foods have an absorbed rate of 90-98% efficiency.

The term processed food means that the ingredients were refined (predigested for you) by human intervention through machine or chemicals, so the body can absorb, and recognize the nutrient quicker! That's why sugar can hit the tongue and be recognized so quickly, because its a molecule in the simplest form called glucose, which gets absorbed extremely easily.

Whole foods are full of fiber and not broken down yet. Meaning the body has to spend energy on mechanical (rhythmic churning and grinding motions), and chemical digestion (stomach acid and enzymes) to break down the food for you. This takes extra communication and signaling that helps indicate the quality of the food coming into the body. Initiating downstream processes to prepare for incoming nutrients.

Except most of the food we eat now, is highly refined, and easy to soak up into the bloodstream without having to do any extra work. IT'S ALMOST LIKE WE ARE HAVING DESSERT AT EVERY MEAL!!!

Like... explain to me, why you can't have dessert all day everyday? Why is it unhealthy? It's a high sugar snack, with no vitamins and minerals that your body absorbs quickly, that increases your free blood glucose, and then soon blood sugar levels will crash, you will feel sluggish, and it makes you crave more, causing you to overeat, and make you gain fat.

Sounds like chips, crackers, cookies, cakes, muffins, cake, popcorn, tortillas, and donuts (high glycemic). Well, foods like bread, pasta, lasagna, pizza dough, pancakes, sauces, granola, snack bars, bagels, and breading all use the same flour, with just less sugar.

White flour is wheat that gets refined and milled through two revolving corrugated steel rollers that crush the grain and separate the inner germ layer and the outer bran from the endosperm. Removing most of the fiber and essential nutrients like vitamins, minerals, and phytochemicals.

This flour then gets blanched to stop enzyme action that would otherwise cause a loss in flavor, color and texture. Then, the flour is bleached, to give it a distinctive white color. After that, the flour goes through a process called enrichment (enriched flour), which is the practice of re-adding micronutrients back to a food product that were lost during processing. While fortification is the process of adding micronutrients into the flour, that were never present in the original grain (if any, small amounts).

This reintroduction still doesn't slow the absorption rates or reduce the bioavailability. By the time flour or sugar gets absorbed into the bloodstream through the enterocyte in the small intestinal wall, they are physiologically the same molecule... GLUCOSE.

It only takes one chemical mechanism to decompose flour (starch) into its constituent pieces. This starch is a polymeric carbohydrate made up of many glucose units held together by glycosidic bonds (C-O-C), that use water to separate (hydrolyse) the two glucose molecules from one another.

These individual glucose molecules are ready to immediately get used for energy through glycolysis, Krebs cycle, and electron transport chain to generate ATP which is the energy source for the body.

Or glucose can go to storage if you have too much at once. So then it will either be converted to glycogen for storage in the liver or muscles. Or get converted into fat through a process called lipogenesis, where it is stored as fatty acids in adipose tissue, but there are bigger problems existing in the body than just fat accumulation.

Any excess glucose not immediately stored or utilized may also remain in the bloodstream temporarily, contributing to blood sugar levels. THIS retention of sugar is a major factor in health problems because of the way glucose reacts with other compounds.

It may seem easy enough to excrete sugar in the urine (glycosuria), but this only occurs when blood sugar levels are abnormally high, which is most commonly associated with diabetes. This is problematic because high blood glucose can cause hardening of the arteries (arteriosclerosis).

This can cause capillary walls to start to thicken and small blood vessels to “leak”. This damage can lead to a heart attack, stroke, poor circulation in the lower extremities. Or other complications such as damage to the blood vessels in the eyes, which can lead to vision loss (Diabetic Retinopathy). Damage to the blood vessels in the kidneys, potentially leading to kidney failure (Diabetic Nephropathy), and damage to the nerves, particularly in the feet, which can cause numbness and increase the risk of injury and infection (diabetic Neuropathy).

Nerves are living cells too, they need nutrients, and they need blood supply. The free radical rich blood is damaging their structure leading to a decrease in their functionality which results in a feeling of numbness, lack of sensation, and unresponsiveness.

This damage is being caused by free radicals and Reactive Oxygen Species (ROS), generated from **Mitochondrial Overload, that occurs** when blood sugar levels are high, and cells take in more glucose. This excess glucose is processed in the mitochondria to produce energy, but this overwhelms the system, leading to the "leakage" of electrons that react with oxygen to form superoxide, a type of reactive oxygen species (ROS).

There is also **AGEs Formation, where** high glucose levels cause sugars to bind to proteins, lipids, and nucleic acids in a process called glycation. This results in the formation of Advanced Glycation End Products (AGEs), that can bind to specific receptors on cells called RAGE (Receptor for Advanced Glycation End products), which triggers inflammatory responses and further ROS production.

Then there is Polyol Pathway Activation, where glucose is converted into sorbitol. This process consumes NADPH, a molecule needed to regenerate the body's main antioxidant, glutathione. So when NADPH is depleted, the body's ability to neutralize ROS is compromised, leading to increased oxidative stress.

Although there are plenty of other natural processes that lead to free radicals and ROS, Sugar is accelerating the process of oxidative stress and acting as a major contributor to chronic inflammation in the body.

What is chronic inflammation, and comes from oxidative stress over a long period of time, what is oxidative stress? That's where the real question comes up. So oxidative stress is about reactive, oxidative species, ROS, free radicals, which are electrons starving, high energy molecules, that are in the cells in the bloodstream of the body, being made from multiple reactions in the body, but the most important reaction that we need to look at is the sugar in the bloodstream. Now why would sugar cause oxidative stress in the body, now we are getting into the fundamentals of Aging and break down of the body. Sugar along with other process carbs break down into the fundamental molecule of glucose, glucose reacts with oxygen and iron in the hemoglobin of your red blood cells, and that reaction creates free radicals, it's called autooxidation. These free radicals then go on to react with important, cellular components, like proteins, lipids, and DNA, and this damage is called oxidative stress. These ROS can cause a chain reaction of oxidation within the cells. This process damaged cell membranes, disrupts normal cell function, and triggers inflammation, which is the

Inflammation clearly exists for a reason. Recent studies have revealed that inflammation is necessary and crucial for the healing process our body uses to naturally deal with viruses, bacteria, and muscle repair. In other words, inflammation is our body's natural healing mechanism against injuries and infections. However, sometimes inflammation persists chronically, day in and day out, even when you are not threatened by a foreign invader. That's when inflammation can become harmful to your body. Many major diseases that cause us misery including cancer, heart disease, diabetes, arthritis, depression, and Alzheimer's have been linked to chronic inflammation.

Consistent oxidative stress is the most common cause of chronic inflammation because we use oxygen in the conversion process to break down food particles to make energy within the body. Oxidative stress, defined as a disturbance in the balance between the production of reactive oxygen species (free radicals). Which is the cause of many chronic diseases. Sugar, stress, sedentary lifestyle, all increase inflammation within the body. Your body feels constantly alert when you have chronic inflammation, which can be counterproductive to your mental health. Higher inflammation in the body allows you to get sick easier, as your immune system is worn out from constantly working.

Oxidative stress that leads to inflammation is considered to be the root of all causes of mortality. So anything we can do to reduce the production of these highly reactive, damaging, toxic molecules is going to increase our life expectancy, and quality of life.

Free radicals are produced by high intensity exercise, these can be taken care of, through antioxidants found in plants, especially berries

Free radicals can damage our DNA

So yes, exercise does damage our DNA, ultra marathon runners are seen to have some of the most DNA damage based on activity exertion, these effects last for about two weeks in these runners

High blood sugar over time can also damage blood vessels in the brain that carry oxygen-rich blood. The brain's optimal fuel source is glucose, but this accumulation of oxidative stress is toxic to the neurons. As capillaries harden and thicken, the plasticity diminishes as the blood supply decreases, and regions of the brain atrophy from receiving too little blood. Once the neurons die, they never come back. This results in problems with memory and thinking, eventually leading to vascular dementia.

Oxidative stress is going to occur, it's a byproduct of an imperfect system that uses oxygen. We use oxygen for metabolism, detoxification, synthesis, immune response, healing, respiration, pH balance, combustion, decomposition, and plays a crucial role in cell signaling.

Oxygen is essential for life, as it drives processes like cellular respiration, where oxygen accepts electrons at the end of the electron transport chain to produce water and energy. Oxygen is a powerful oxidizing agent, meaning it can accept electrons from other elements during chemical reactions. It's the second most electronegative element (after fluorine), which makes it very reactive. This allows for quick energy production and an instantaneous transfer of information so we can operate at the speeds and efficiency that we do.

Prolonged blood sugar is toxic to neurons

When blood sugar gets too high and damaged and neuron your brain, and

and brain cells will die. Resulting

that's why insulin is important to bring blood glucose down

This excess sugar can lead to byproducts

signal to the cells that they need to uptake nutrients. Insulin is released when sugar is detected, and important for the cells uptake of sugar, because if the sugar just stays in your bloodstream, then it damages the walls of blood vessels.

Then as the sugar gets absorbed, your blood sugar rises, and the body responds by releasing insulin, which facilitates the uptake of glucose into muscle, liver, and fat (adipose) cells by attaching to receptors on those cells that signal for the glucose transport channel proteins (GLUT4) inside the cell to move to the cellular membrane where they can now imbed in the cell wall, and act as a tube/opening for glucose to travel through.

the pancreas releases insulin into the bloodstream, because insulin attaches to cell receptors and facilitates the uptake of glucose into liver, muscle, and fat cells

This initiates the release of insulin that attaches to receptors on the cells telling them to open up their GLUT 1-4 channels to only accept glucose into their cells. As a byproduct of this sugar uptake, and insulin release, appetite is stimulated, and we eat more. If we are eating high glycemic, high carbohydrate foods, then the levels of insulin and appetite will increase until you stop eating, and as blood sugar caps, insulin is still trying to put it all away, and if there is

Now this absorption of glucose has nothing to do with the absorption of amino acids, completely different doors they have to go through insulin opens GLUT 1-4 specific, only allow glucose

As blood sugar increases, so does your appetite, so if you are eating processed carbs, then blood sugar will rapidly get absorbed into the bloodstream. This rise in dopamine as you start to eat

rewards the brain and body with immediate energy. The body responds with dopamine

This act of eating stimulates our appetite, to make sure we eat until we are full.

The drop in blood sugar levels can trigger hunger signals, leading you to feel the need to eat more, even shortly after a meal.

Carb Cravings: This cycle can lead to increased cravings for carbohydrates, perpetuating a pattern of eating that can contribute to overeating and weight gain.

open up the door to cells, so they can uptake fuel, and if there is fat molecules around, it makes it even easier to get stored, because the doors are already open

leading you to think you need to boost up your energy with another high sugar food, only to go through a spike/crash cycle again.

It is these free radicals, AGE's, ROS, that are causing all of our problems, and these are caused by the overconsumption of processed carbs, lack of exercise, smoking, drinking.

Not only is eating sugar forcing your body to begin storing fat, it's also causing an overaccumulation of highly reactive molecules in your body

The solution exists in the food we eat.

Enzymes don't get "used up" when they catalyze a reaction but just like any membrane or molecular machinery in the cell, they can become damaged and need to be replaced

Enzymes are proteins composed of amino acids linked together in one or more polypeptide chains. This sequence of amino acids in a polypeptide chain is called the primary structure

When you cook proteins they go through this “denaturing” process where the folds in the long chain spread apart, however, this does not affect the ability to absorb any extra amino acids. The body can absorb the same amount of protein either way, no matter which way it was processed.

Microwaving food doesn't damage or make the food less healthy, all microwave does is vibrate the water molecules in the inside of food, and that friction against the nutrients causes them to heat up, so that's why a plate doesn't get hot

Cooking food improves digestion and increases the absorption of many nutrients. For example, the protein in cooked eggs is 180% more digestible than that of raw eggs. The process of heating denatures (breaks apart) proteins, rearranging them and allowing them to unfold. The exposed protein chains are more easily digested and bioavailable than raw proteins. However, some cooking methods reduce several key nutrients. A protein with high bioavailability is easily absorbed after digestion and the body can then use a high percentage of the amino acids. For example, while soy is generally a good source of protein, an egg is more bioavailable and far more of the protein in it is available for use by the body. Vegetable protein is not as bioavailable

All of it gets denatured at some point. You have to denature it in order to digest it. Denaturing the protein beforehand just means it loses its natural folding structure. Your body wants the amino acids, it doesn't really care how they're folded or even what order they're in. It's like taking a hammer to a lego creation so you can use the legos. The legos are all that matter.

It's really the amino acids that get chemically changed through oxidation that become lost, and they're probably in pretty small proportions

It's only bad if the protein loses its function inside an organism because of denaturation. Denaturation just means that the protein loses its intended or functional 3D shape - its fold. Usually because of pH change or temperature

Along with making some food nutrients more digestible, by using these chemical reaction to make the nutrients smaller and broken down into individual molecules

Proteins are built as long chains of amino acids, which then fold into unique three-dimensional shapes. Bonding within protein molecules helps stabilize their structure, and the final folded forms of proteins are well-adapted for their functions.

The amino acid sequence of a protein determines its 3D structure. Folding of proteins into their correct native structure is key to their function. Failure to fold properly produces inactive or toxic proteins that malfunction and cause a number of diseases.

If it doesn't fold correctly, then it could be rendered useless in the body and not be able to do its function.

There will be multiple proteins that have to mold into with one another, and if they don't match perfectly then it will not follow through with its job

It's like selection specific designed magnets on a molecular level. They just don't connect unless it is uniquely identifiable by the receiver

Often resulting in a chain reaction where the connection of the two proteins causes one to release a small molecule, leading to other chain reaction within the body to regulate systems and make others turn on or off

Proteins bind to each other through a combination of hydrophobic bonding, van der Waals forces, and salt bridges at specific binding domains on each protein. These domains can be small binding clefts or large surfaces and can be just a few peptides long or span hundreds of amino acids.

When your body becomes low on electrolytes, it can impair your body's functions, such as blood clotting, muscle contractions, acid balance, and fluid regulation. Your heart is a muscle, so that means electrolytes help regulate your heartbeat. An electrolyte is a chemical compound that dissociates into ions and is capable of transporting electric charge. An electrolyte is an electric conductor, unlike a metal that uses a flow of electrons, electrolytes use a movement of ions. You find them in all of the whole foods you eat. They come from within the makeup of the food structure that you eat. With a contributing factor of their bioavailability being how the food was prepared, these vitamins and minerals can be washed away in the cooking process, which plays a role in the quality, so by cooking foods you are decreasing one vitamins availability while increasing another vitamins availability, so it's a tradeoff. Cooking also enhances the flavor and palatability, so if that's the only way you will eat your vegetables, then that's fine. You may also receive benefits by consuming the stew or broth that your food was cooked in, and not always pour it away.

When a protein or enzyme has a binding site, there is a position on the side of that protein that can open up or close when that other position has something attached, like a door lock and key where the movement of one side is actually connected to another with a conformation change mechanism on the inside that you cant really see, but when it moves you know what happens because you now notice the downstream result you are looking for. So this example of the lock and key is a well known analogy for the enzymes structure and mechanism, but another idea that demonstrate that this enzymes function would be like a zipper pulling two “substrates” together, or your car ignition needing a key, or your phone charger requirign the right adapter before any desired result can happen downstream

These micronutrients have different benefits within the body. Vitamins are necessary for energy production, immune function, blood clotting, and other functions. While minerals play a role in growth, bone health, fluid balance, and several other processes. Another name for minerals is electrolytes which are found in your blood and other body fluids that are other elements that carry an electric charge. Electrolytes affect how your body functions in many ways, including the amount of water in your body, the acidity of your blood (pH), and your muscle function.

- Minerals = assist in formation of muscle contraction, and assist in basic functions of the powerhouse of cell
- Vitamins = Help facilitate function of cell and reactions

Many essential metals like calcium, chromium, copper, iron, magnesium, manganese, molybdenum, potassium, sodium and zinc are needed to activate enzymes.

These vitamins and minerals have no energy benefits in the body, and cannot be burned, but are rather used as enzymes in the body to help processes run and help breakdown the other foods that we eat, (acting as a catalyst to get certain processes started), allowing certain chemical reactions to happen in the body that are too energy intensive without these enzymes to lower the activation energy to get the reaction started

Have you ever heard that enzymes don't get used up in a chemical reaction, and can be reused? Then why do we have to keep getting them in our diet if they never break down?

The supply chain is designed to support our cultural demands. As you see the reality of whats happening, you can accept that based on what society requires, this is in simple just what has to happen, and is what is happening, so thats why you are seeing it, and hopefully not surprised by it

The problem lies in your own ability to take care of yourself, and if you don't you'll only be just another piece of this global epidemic, where we exist in the network of the problem, relying on the companies that exacerbate the problem, and keep it going, but you can step out of the "game" that is going on, you can choose to avoid paying to play in the game that you have no control over

Your choices are either to eat healthy, and avoid being marketed to, and avoid being sold prescriptions to.

Or to eat unhealthy, and surrender to the easy meals, and easy days, and have to play the prescription game for the rest of your life

Both are fine and both are acceptable, you'll probably live to the same age either way, but there is freedom in the idea that you aren't reliant, and there is confidence in the ideology that you are doing the right thing.

The quality of life may not be physically better in either direction over the other, but in each of our own minds we believe that we are having an easier time or not.

Food is food at the end of the day

We each go through our days one activity at a time

We get to choose what we want to do with that time, and the biggest difference is that if you are healthy, you have more options

There will be people that say they love their life in every category you choose to look into

We all at the end of everyday are just trying to get through our day to the best of our ability with the least amount of stress and anxiety as possible

We all just want to be happy

And you will be happy no matter what life you choose, or whatever direction you choose

Life continues for each one of us, and it all comes back to how happy we are with the activities we choose to do everyday with our time, and thats where our choice comes in, and thats what reciprocates to determine how happy we are.

Nobody has any say in that except for you

There is no company or product or service or goal that will have a say in how you think about yourself

So just continue to go with the flow and do what you want to do, and realize that there are enough resources out there to support you with any direction you choose

Society will keep you alive

They will keep your bloodmarkers happy

You will live to the same age as everyone else

There are just so many factors that adjust our lifespan, that you could be the healthiest person in the world and it probably wouldn't make a difference

We each only have a small contribution of willpower to change how long we live

There are factors bigger and more uncontrollable than anything we could ever imagine

So we can only live everyday with the goal of being ourselves to the best life that we could possibly foresee today because we have no idea what tomorrow will look like, but we can only hope and imagine that it will be another day that we were happy to live and be alive for

That mindset is what we are searching for, nobody cares what you do, as long as they see that you are choosing to be happy with it

If you are happy, you will only be reciprocated with kindness and love. Nobody will ever try to change you, but if you're not happy, and we see that, and we can tell that the choices you are making are contributing to that, then we are all going to notice and a couple people are going to say something about it

It's no one's place to change you or to tell you what to do, but you exist, and so do conversations, so the truth of how you feel just might show through

Remember that people around you aren't stupid. We all have an intuitive understanding of the quality of life that surrounds us, because each individual displays and demonstrates just a little bit of conscious magic that affects the way we think and respond

That's all we are, observing reacting species that walk around earth doing whatever we want.

Your life exists not in how others treat you, but in how others interact with you based on what you give off.

Your thoughts are the determining factor that differentiate you from having a good or bad day

Food is only a small portion of that, we are all, also relying on interpersonal interactions, expectations on how we thought our day was going to go, and experiences that affect the future that we get to experience

Of all things, good or bad, your internal cellular communication system is only a small contributing part to the life that your MIND sees.

You might have control over that perspective with willpower and mindfulness but you're the only person that knows what you think, and we as bystanders to that internal realm that you get to experience will only get glimpses of the life you're having up there

We all know that you spend a majority of the day in your head, and we can only hope and imagine that you are having a good day up there, happy and proud of yourself and what you are choosing to believe

Nobody can choose to change you, but we can each individually choose to change the way the world affects us, by either eliminating, or adding people, places, things, and ideas, that we interact with or go to.

Every person we interact with, idea we hear, place we go, or activity we spend time doing has a value we place on it that determines whether or not we want to go spend time there again.

If someone makes a choice with their time that offends you, then you have to accept that

Every person has their own life, and we each determine our level of enjoyment by evaluating the alternatives.

You do the same thing. We all do. So don't be surprised if your ideologies don't align with another person's. They won't all be compatible.

It is your life to do what you want with, and it is theirs too. Go on with your day and approach it all again tomorrow.

Find a way to make it different if you didn't like it, and try to do it again the same if you did.

Happy days creates happy habits, and favorite places to be

We all love loving our life, and it's okay to have the same day over and over again if you love the way it's going.

You don't have to settle for what one company does, or what one activity can offer.

There are hundreds to choose from, and you have the choice to make it your next pla, continue using it, or avoid using it altogether.

Of course, the byproducts of those choices are more complex than that, but you don't have to rely on the most common sources that have always been there especially if they are causing pain or grief in your own mind.

If your happy with the meds, then that fine, stay on them

Nobody has any choice over saying anything about that, but if you aren't happy with the fact that you're having to use them, then change what you do, so that you can get off

Time is money, and thought is time, if you look at where your money is going, and if you're using meds and not happy with them, you are paying for them whether you think insurance is or not.

So if you're not living your best life and you're not enjoying it, yet you're spending time and money on continuing to perpetuate through that life, that quit living in that routine

It's shocking how many people believe their diet is fine, even though they have so many life altering symptoms, and are forced to take drugs to reach a normal state, or even just to simply survive. A majority of Americans are not getting the micronutrients they need from their diet, and most premature deaths in the US are preventable and related to nutrition. If that is true, then that is the reason why I believe in the concept of "holistic functional medicine". Which uses food as a solution to the underlying health problems to treat the symptoms you experience. Rather than our societies accepted practices of "pharmaceutical conventional medicine". Which is the practice that uses drugs of all sorts to mask the underlying disease, and cover up the symptoms to make you "feel normal". All while your body may be struggling on the inside and then we still continue to feed our body the poor diet and harmful nutrients.

The physiological explanation is the medication inhibits a precursor of platelets called COX-1, in the gastrointestinal tract which leads to that reduction in secretion of the hormone prostaglandins which have cytoprotective effects in gastric mucosa lining. This precursor to platelets explanation also applies to why aspirin, and how it interferes with the way blood clots, and can help prevent a heart attack or stroke. Which are severe symptoms that can occur from also having a low blood pressure because there is not enough blood going to the brain or heart to provide oxygen, so those cells die, and don't contribute any longer. Restrictions in blood flow may occur from vessel narrowing (stenosis), clot formation (thrombosis), blockage (embolism) or blood vessel rupture (hemorrhage). While lack of sufficient blood flow (ischemia) to the brain tissue and may cause a stroke.

Oxidative stress is often caused when free radicals produced by the reaction of glucose, iron, and oxygen. Which all occur in what spot, the blood vessels. So that's where my point of sugar being a problem comes in. So an example is type 2 diabetes - insulin resistance, the body is building up a tolerance to the insulin. So the pancreas has to keep working harder and harder to produce more insulin to overcome that tolerance threshold. Well, eventually after overworking for a long period of time, the pancreas gets tired, and get meet the same demands. So now the insulin receptors on the cell walls have a tolerance higher than ever, and the insulin is not even close to that amount needed to signal to the cell that it needs to uptake glucose. So the glucose stays in the bloodstream. This reaction i explained earlier occurs and these free radicals

Then there are drugs like metformin which have been found not to have really any serious side effects, like everything there is usually something minor. However, even this medication has been prescribed to healthy individuals. The utilization for non-diabetics individuals derives from some evidence that metformin can decrease inflammation, protect against cardiovascular disease and cognitive impairment, minimize cancer risk and progression, and prolong life.

Metformin is most commonly used as a medicine to treat type 2 diabetes and gestational diabetes. While also being used to help prevent type 2 diabetes if you're at high risk of developing it. Metformin has been found to decrease the rate of age-related illness progression improving longevity, especially in the setting of cancer. Recent clinical trials across multiple diseases have shown that metformin is beneficial for decreasing all-cause mortality in diabetic and non-diabetic patients.

Metformin lowers your blood sugar levels by improving the way your body handles insulin. It's usually prescribed for diabetes when diet and exercise alone have not been enough to control your blood sugar levels. It does this by decreasing hepatic (liver) glucose production, decreases intestinal absorption of glucose, and improves insulin sensitivity by increasing peripheral glucose uptake and utilization throughout the whole body.

So metformin acts directly or indirectly on the liver to lower glucose production, and acts on the gut microbiome to increase glucose utilization, increasing GLP-1 which helps with satiety. Metformin also activates AMPK phosphorylation which is an enzyme that activate glucose and fatty acid uptake and oxidation when cellular energy is low, Increased AMPK activation has been shown to help reduce fat storage (especially dangerous belly fat), increase insulin sensitivity (to lower blood glucose), reduce cholesterol/triglyceride production, and suppress chronic inflammation. which in turn reduces oxidative stress, reduces the production of inflammatory molecules like cytokines, and increases enzyme activity to increase Nitric Oxide, which increases blood flow, along with angiogenesis (making new blood vessels). Which may all be an important mechanism for metformin's role in cardiovascular protection.

The medicine does not increase insulin levels in the body, but instead lessens the amount of sugar the body produces and absorbs. As it lowers glucose production in the liver, metformin also lowers blood sugar by increasing the body's sensitivity to insulin. It increases insulin sensitivity by making each cell's receptors respond more rapidly from chemical information from other molecules on the outside the cell. These outside molecules bind to receptors on the cell, activating the receptor and generating a biochemical reaction or electric signal inside the cell.

Medication may mask your pain temporarily, but its not going to solve a chronic underlying functional problem. Drugs work in your body in a variety of ways. They can interfere with microorganisms (germs) that invade your body, destroy abnormal cells that cause cancer, replace deficient substances (such as hormones or vitamins), or change the way that cells work in your body

Some pharmaceutical medicines will act as a supplement for specific hormones that your body has not been making enough of. When you take these hormone replacement pills, and continue to receive these artificial hormones just to keep your body functioning. You get to a point when you constantly supplement your hormones, that you have convinces the body that there is enough around so it downregulates your organs that usually creating these hormones to not make as much anymore. By becoming dependent upon these hormone replacement drugs, it prevents your body from healing back as well as it could. Now that you become dependent, you have to take them for the rest of your life. So that becomes an unnecessary expense that could have been avoided with a good diet.

Another function pharmaceutical medicines could have is to shut down a hormone pathway. Often called a suppressant or inhibitor. The way they work is that they target a specific hormone pathway by causing the molecule to become ineffective so that it can't have an effect any longer, often by preventing the receptors downstream to react when the molecule shows up. Stopping the signaling cascade from making it to the designated cells, and preventing them from receiving the information or signal at all. When we block this hormone pathway, it can often cause the body to let the hormone flood your system when the suppressant finally wears off.

It's actually extremely surprising that we can move as much as we do, for how much energy we take in! Just by eating 2000-4000 calories, we can generate enough energy to power all the systems in our body for a full day!

It's surprising how efficient our body can be without us having to put in any conscious effort. It's nice to wake up everyday and know that the process is automatic, so we can have the freedom to do more important things with our lives other than eat, and process internal signals.

Imagine a life where you spent the whole day foraging for food, eating, and then analyzing and interpreting the way you felt on the inside. You would never have time to experience the world around you, but we are given the opportunity, freedom, and privilege to explore interests outside of our body. Most animals do not have the choice. For example, chimpanzees have to often spend 50-60% of their waking hours in a day foraging for food.

In contrast, humans have developed ways to streamline the collection and compaction of nutrients so that we can eat, and MOVE ON! It's relieving to know that I can do things I find more important with my life rather than simply survive. We have been given the opportunity to live in a society that has guaranteed all of our fundamental needs, so we have the choice to decide what we want to spend our time thinking about.

The system is set up, so that we don't have to think about food, shelter, or water, so don't spend your life trying to decipher what you still need. Just eat something that fills you up, and LEAVE!!! Stop eating foods that make you feel weak, sluggish, unmotivated, lazy, hungry, tired, irritable, trapped, unproductive, and guilty.

Choose something that is satiating, and fulfilling and FORGET ABOUT IT!!! Find ways to eat for energy rather than pleasure, because when your choice to eat, prevents you from doing other things important to you, then you need to find another food that facilitates that quality of life that you want to live.

When you are done eating, you should not feel sluggish. That only happens when you have too many carbohydrates. As your blood sugar drops, this is perceived as low energy, and lethargy. When you eat processed carbs, there is a spike in blood sugar, which is your perceived energy.

As you eat processed carbs, your dopamine increases as the brain perceives quick energy.

The goal of the body is to get all of the blood sugar out of the bloodstream, and into the cells for storage. So if you are eating fast digesting carbs, then the blood sugar will rapidly spike, and then fall. This rapid drop in blood sugar is what causes us to feel tired, because ghrelin, known as the "hunger hormone", spikes as blood sugar drops further stimulating hunger. So if you continue to eat processed carbs this cycle of eating=>getting full => quick energy=> insulin spike=> low energy=> ghrelin spike=> hunger perpetuates a predictable pattern of eating that contributes to overeating, and weight gain.

When you eat whole foods, your insulin release is manageable, and blood sugar rises slowly and decreases slowly. With processed foods, there is a sharp spike and drop in blood sugar. Your tiredness is caused when the insulin hits the bottom of the range.

That's why we need foods that slow down digestion, because when calories are steadily incoming, appetite, energy, hormones, mood, metabolism, absorption, digestion, blood sugar, and weight becomes manageable.

The goal is to not overload the body with carbs/sugar/glucose. These nutrients behave the same way in the body. So we can't have too much of them. Carbs are good, but not in their processed form. Vegetables have carbs, so do fruit, potatoes, oats, yogurt, corn, rice, and beans all have carbs. Don't avoid these.

When you limit your carb intake, you start losing more retained water from the body

Carbohydrates, or carbs, also cause the body to store extra water. When we eat carbs, the energy that we do not use right away is stored as glycogen molecules. Each gram (g) of glycogen comes with 3 g of water attached.

Insulin can **significantly increase the Na⁺/K⁺-ATPase activity of skeletal muscle**

Water does still follow its concentration gradient, so it might be easier to think that water moves from where the concentration of water is high to where the concentration of water is low rather than thinking about solute concentration. Hypertonic and hypotonic are not the same.

In osmosis water is flowing down its concentration gradient, which is opposite to the concentration gradient of the solute.

Carbs also lead to a rise in the hormone insulin, which can increase sodium retention and reabsorption of water in the kidneys (27). Low carb diets lead to a drop in insulin levels, which could lead to a loss of sodium and water from the kidneys

Does not increase blood sugar, lower effect on insulin relative to glucose, but acts as a fat storage signaling molecule, and calorie for calorie compared to glucose, fructose leads to more fat deposition

Fruit is half glucose and half fructose

Fructose can actually increase hunger, by shutting down the pathways that decrease hunger

Even the fruit we eat should be treated as a dessert, and not consumed often. It's another food that we just need to eat in moderation, but they are full of sugar, even though they do have health benefits from the vitamins and minerals. Fruits contain natural sugars, meaning there is no “added sugar” and it occurs in nature. Fruit also contains valuable nutrients that we want to consume, that are necessary for supporting proper health. Fruit provides many essential nutrients that often are underconsumed, by FDA standards, including vitamins C, A, folate, potassium, and dietary fiber. Eating more fiber-rich, low-calorie fresh fruit in place of higher-calorie foods can help decrease your overall calorie intake. Fruit can also be good to curb your desire for a sweet treat.

The amount of sugar in a food item is directly proportional to how sweet it is, so, for example, if one apple is sweeter than another, the sweeter apple contains more sugar than the other.

Polyphenols are another compound that we get through certain plant-based foods. Which favor the increase of beneficial bacteria and hamper the increase of pathogenic bacteria. Polyphenols are reducing agents, which have the opposite effect of oxidative stress, and together with other dietary reducing agents, such as vitamin C, vitamin E and carotenoids, all combined referred to as antioxidants, protect the body's tissues against oxidative stress and associated pathologies such as cancers, coronary heart disease and inflammation. In addition, the microbiota in our gut may act on these polyphenols to increase their bioavailability.

When you are at the grocery store, pick fruits and vegetables that span all colors of the rainbow. Each color has a different array of phytonutrients that are good for your gut bacteria

Whole foods help you master intuitive eating

When we could instead fuel our bodies with something longer lasting and more sustainable.

Everything about the way you look, and think, is affected by food

Also learn never to stress on the quantity of food, because you won't get fat from eating whole foods.

You don't have to be vegan but eat foods in their most natural state.

Don't buy food that stores well, try to eat everything fresh.

Fiber is a unique type of complex carbohydrate that the body does not break down into sugars for energy as it does with other kinds of carbs. Rather, fiber passes through your digestive system intact, improving digestion and heart health and encouraging healthy weight loss. Fiber acts as a broom to sweep out the digestive tract. Dietary fiber is found only in plant foods.

Processed food causes a majority of digestive issues. White flour specifically has been termed the "glue of the gut". It has no fiber, congests the system, and slows down digestion. This leads to a slow metabolism, which can lead to weight gain, stress, headaches and migraines and constipation.

We also don't want the bacteria to only get refined carbs, because they are designed to break down complex carbohydrates, and to a lesser extent proteins and fats. Slow digesting complex are when your bacteria are the happiest and make the most beneficial byproducts for you. Carbs which are also called starches, which are found in your vegetables include oats, greens, or root vegetables like potatoes have these additional phytochemicals, that are their form of a defense mechanism, and when you eat these it is like a small stressor on your immune system to help make it stronger. Working as a natural vaccination, acting as an additional benefit of long term health from eating plants, as something that you can't get from supplementation. The human gut microbiome is a critical component of digestion. We want these bacteria to thrive, and have food to eat because of all the benefits they provide to our body.

Studies indicate that sugars consumed in their natural sources (fruits, vegetables, grains, dairy products) do not negatively impact health, but when that sugar is removed from its original source to be refined, and then added to sweeten other processed products, then that is when the problem arises. Sugar in fruit and added sugar are not the same thing, says Lauri Wright, spokeswoman for the Academy of Nutrition and Dietetics. Even for people without diabetes, sugar in fruit is a healthier option than sugar from other sources.

Despite fruits having naturally occurring sugar, our bodies can still gain fat when we eat fruit. A recent study found that, matched calorie for calorie with fructose compared to the simple sugar glucose, fructose causes significant weight gain, physical inactivity, and body fat deposition. Fructose is a sugar molecule in fruit, that is a good signal to start preparing storage molecules for winter. If you think of wild bears finding berries, the body notices that these high sugar fruits only occur once a year, so you need to pack on fat, for the upcoming months of no plant growth. However, now that we have access to them all year long, we need to treat them as our dessert, and not eat too many of them.

Fructose is like a signal that we are about to go through a famine where we will not have access to much food

Fructose is harmful only in large amounts, and it's apparently difficult to get excessive amounts of fructose from fruit. For most people, the amount of sugar in fruit is safe to eat. Since there is not enough fructose in fruit to cause concern. Little fun fact about modern fruit is that it is selectively bred, to be more flavorful, with more sugar, less seeds, and more material per fruit ovary. According to the zoo's head of conservation, Amy Plowman, the modern bananas' high sugar content could cause the monkeys to develop diabetes or similar conditions. "It can also cause gastrointestinal problems as their stomachs are mostly adapted to eating fibrous foods with very low digestibility," Monkeys really do eat bananas in the wild, similar to the ones we eat, but they are different from supermarket bananas. The bananas we eat are too sweet for monkeys and are only good as occasional treats.

Complex Carbohydrates or polysaccharides contain longer chains of sugar (starches) and non-digestible fiber. For example, potatoes contain this special type of starch known as "resistant starch". Which is not broken down and fully absorbed by the body. Instead, it reaches the large intestine where it becomes a source of nutrients for the beneficial bacteria in your gut. Resistant starches are carbohydrates that do not break down into sugar and are not absorbed by the small intestine. Similar to insoluble fiber, they pass through most of the digestive system unchanged, usually fermenting in the colon. Even if they are absorbed, they take much harder to digest to get them small enough to get through the wall of the small intestine, and because of that they take longer to raise blood sugar. These complex sugars help to keep our blood sugar stable over the day and avoid the midday crash.

Normally, urine contains very little or no glucose. But if you have too much glucose in your blood, your kidneys will get rid of some of the extra glucose through your urine. So, **a high level of urine glucose may mean that your blood glucose is high, too, and that could be a sign of diabetes**

If your glucose is too high, there is a point of saturation where your kidneys cant absorb anymore glucose to secrete, it cant go into the cells, so it stays in the bloodstream

If you urinate out too much water as water follows the concentration gradient, if you lose too much your blood pressure goes down and your brain is susceptible to pressure and it could send you into a coma, you can't get blood up to the brain and you will go unconscious

So after the conversion process to get food molecules broken down into glucose and its constituents, we bring it into the cells.

When you drink alcohol, you may lose electrolytes through increased urine output. Dehydration and an imbalance of electrolytes can contribute to symptoms such as headaches, dizziness, and fatigue, commonly associated with hangovers.

To help mitigate these effects, it's advisable to stay hydrated by drinking water and, if needed, beverages that contain electrolytes. Sports drinks or electrolyte-enhanced water can be options to replenish lost minerals. Consuming electrolyte-rich foods, such as bananas (which contain potassium) or salty snacks, may also be beneficial.

If you're drinking, and your liver enzymes are messed up, I was going to inhibit your muscle growth

Alcohol is a dehydrator, diuretic, and hypoglycemic, immunosuppressant, and shuts off growth hormone

Since alcohol is a diuretic, meaning it increases urine production and can lead to dehydration. Electrolytes are minerals such as sodium, potassium, and magnesium that play a crucial role in maintaining hydration and supporting various bodily functions.

You absorb 20 percent of alcohol into your bloodstream through your stomach and the rest into your bloodstream through your small intestine. Drinking a small amount of alcohol stimulates your appetite because it increases the flow of stomach juices.

There are three main ways drinking alcohol in excess can be a factor in causing diabetes. Regular heavy drinking can reduce the body's sensitivity to insulin, which can trigger type 2 diabetes. Diabetes is a common side effect of chronic pancreatitis, which may be caused by heavy drinking. Lastly, alcoholic drinks often contain a lot of calories, so for instance, one pint of lager is equivalent to a slice of pizza. So, drinking increases your chance of becoming overweight or obese, which raises your risk of developing type 2 diabetes

Although there are claims that a little bit of alcohol can be beneficial to decrease risk of all caused mortality. However based on further research that i've done, regular drinking of alcohol causes your body to produce more cortisol when you are not drinking, so it causes your body to be in a more stressed state, more in a state of fight or flight which drains your mental willpower and impairs the decision-making process, memory, attention, and learning abilities.

Also most alcohol also has extra sugar in it for flavor, so I don't believe it is healthy in any way. Going back to the fact that alcohol and sugar can lead to fatty liver. Well the reason is that sugar and alcohol are metabolized in the body in a similar way. The sugar fructose is metabolized using a similar mechanism within the liver that alcohol uses to break down into usable molecules. So if they are metabolized the same way, and in the same spot of the body, it could cause the same disease. The reason fructose is metabolized similarly to alcohol in the body is similar to the process of creating alcohol which is metabolized from fructose (ex. wine), where yeast does the first step of glycolysis for you.

The most common cause of liver failure used to be alcohol, now it's sugar. Diseases like diabetes used to be caused by alcohol. There are teenagers on a waiting list for liver transplants from drinking too much soda.

The liver can not be supplemented, there is no dialysis, and if you don't get a transplant, you'll die, it's that important, so don't screw it up

The liver and muscles can store some excess carbs that can't be used as energy right away, in a form called glycogen, which is an intermediate form of energy, before the carbohydrate gets converted into fat. The glycogen stores in your muscles can max out somewhere around 1600 cal, while the liver can store up to 400 calories of glycogen, ready to be dumped into the bloodstream and used for exercise. So there is not an unlimited amount of storage for glucose/carbs, however, we can easily convert the glucose to fat, but wasting out time sending the fat back to glucose isn't going to be efficient. Since the liver and muscles can only metabolize so much glucose before it becomes overwhelmed, this causes new fat production, which is called de novo lipogenesis.

There are different types of fat your body can put on. There is subcutaneous (visible from the outside) and visceral fat (surrounding your organs) so it is hard to determine if someone is healthy based on looking at them since the visceral fat is more harmful. The alcohol and sugar cause visceral fat which is a fatty buildup that can lead to liver disease. Some studies show that sugar can be as damaging to the liver as alcohol, even if you're not overweight. It's one more reason to eliminate foods with added sugars, such as soda, pastries, and candy.

Refined sugars and alcohol become a problem to health, and result in weight gain when the liver gets overwhelmed with too much sugar (or acetate from the breakdown of alcohol) and it has no choice but to go to fat.

Even though you can get hangry whenever you go for extended periods without eating anything, this stress reaction is amplified if you are used to eating high-sugar foods.

Sugar damages the mitochondria, disturbing the lipid composition of the membrane and puts stress on the mitochondria, damaging them and impacting their performance

Every single food group is important. Fats are one of the most essential nutrients because they are used for satiety and to create the feeling of fullness, without them, you will never hit that satiety signal. Fats are also an essential component to building cell membranes, hormones, regulate signaling, and insulate and protect.

Just make sure that all of your carb sources have FIBER, because this macronutrient slows the digestion of food particles, and it facilitates the smooth flow of food through the small intestine. Fiber prevents clogging, and stickiness as it lubricates the intestinal tract. This chemical property exists because soluble fiber absorbs water, and forms a gel-like substance.

Insoluble fiber forms a matrix within the stool and adds bulk. This mass and volume de-condenses and disperses the calories across a larger surface area to ensure other nutrients with a lower bioavailability have an equal chance of getting absorbed, rather than having to compete with sugar for contact space on the luminal wall.

The intestine lining is not just a flat surface, there is a single layer of simple squamous cells called enterocytes, where the absorption process happens. On the cellular level it looks like a carpet with finger-like structures called villi that increase the surface area.

These projections are a microscopic 3-dimensional structure with a complex job of absorbing and filtering out unusable nutrients that might be too large, toxic, harmful, or unrecognized.

Some nutrients, like water and small molecules, can passively diffuse through the cells lining the villi without the need for energy. While larger nutrients, like glucose and amino acids, require active transport mechanisms because it often moves substances against a concentration gradient. This process does involve energy (in the form of ATP).

To ensure we get a variety of nutrients, it would be beneficial to have a consistent flow of nutrients bouncing and rolling past to increase the likelihood of something new, unique, and uncommon to make contact with absorption channels. Our intestinal system is actually designed in a way to promote the continuous consumption of more food.

It's the only way we can survive, and consistently refuel or power engines, but rather than just accepting any energy source, we should prioritize and select for foods that provide the best return on investment. It takes time to eat, and you could waste a lot of time, energy, and thought trying to track your food intake ALL day.

There are tips and tricks to cheat the system, but the mindset involved with chasing after these secrets is disordered eating. The byproduct of biohacking is over-mindfulness, which only puts you into a negative mindspace and keeps you there

You have to be in a deficit of 3500 calories over time to lose 1 pound of fat.

Some foods have an absorbed rate of up to X grams per hour

Thinking that you can consistently have one meal a day over an extended period of time

Or to think that you could have 10,000 calories in a day multiple days in a row

consume 30g of protein per meal to hit a 150g per day minimum for optimal muscle growth.

- You can train the same as someone else but if they eat more protein than you they will end up bigger and stronger

You can also estimate steps by knowing that 2,000 steps equals one mile.

It takes 20 steps to burn 1 calorie, therefore walking 10,000 steps burns off about 500 calories

Fat is a slower metabolizing fuel source. Burning fat, does not exactly mean losing fat from the body. So if you're doing exercise that burns fat, then you're not burning calories as fast as you possibly could be

Fat burners can help enhance fat loss, but they're only supporting when you have a proper diet in place. Fat burners work in a variety of ways, they boost energy, help curb appetite, promote fat to be used for energy, and increase your metabolism and core temperature so you burn more calories throughout the day

A fat burner supplement is a stimulant, and it has two possible impacts on your body. It will either increase your metabolism or decrease your appetite to decrease eating. There is no way to target fat burning specifically or target to reduce fat or your body. Fat will disperse itself evenly throughout the body and will decrease as the calorie intake decrease into a deeper deficit

Hot sauce acts as a general stimulant, increasing blood flow to the stomach, **elevating your heart rate**

spicy foods can also actively assist healthy weight-loss. Studies have shown that capsaicin, the active ingredient in chilies and hot sauce, can speed metabolism, helping your body to burn calories even faster.

- **Some people experience heartburn though**

can temporarily increase metabolism by about **8 percent** over a person's normal rate, an amount considered fairly negligible.

Fasting advice for gut bacteria or control over cancer growth

When considering the calories and determining the amount “IN”, we need to provide the body with what it needs to repair itself and build upon itself to protect itself from future damage. Lets say the body is going to need 3000 calories with protein to efficiently grow at maximum rates that you want. Lets say your muscles need 100 G protein to repair = 400 calories protein.

Have you ever heard that there are 4 calories per gram of protein? This means on this 2500 calorie diet, with 200 grams of protein, only 800 of those calories are protein. However, most of the foods we eat that are “protein based”, really aren’t 100% protein, there is usually fat and/or carbs mixed in for flavor and functionality. So lets say your protein source is 50% protein, then you would need 1600 calories from protein sources to get in your 200 grams. To determine the amount of protein percentage that is taken up in your food item. Multiply the grams of protein on the nutrition label by four, then divide that number, by the total calories, to give you a percentage.

Our body can sustain itself fairly well on a diet with an upward of 35-45% of calories coming from protein, but we really aren't designed to live like that. Things start to happen, and there isn't much research of human consumption of 30% calorie intake from protein. However, look up “rabbit starvation” if you want to learn more about how interesting protein is for energy usage. To summarize, there were some foragers who were in a winter environment where the only food they could get was wheat, barley, venison, and rabbits. These animals were lean, because they already used up their own fat stores. The humans ate these lean proteins, and could not get enough calories for energy and couldn’t survive on this lean protein alone, the death was apparently caused by severe diarrhea, and losing too much water and electrolytes. We can't survive off of eating only protein, like a lean carnivore diet

Protein is special, it’s the only nutrient that can go to all repair including rebuilding body tissues, build muscle, and help you grow. Every cell in the human body contains protein. You need proteins for cell replication and structural growth. Proteins are used for growth of any new structure in the body ranging from hairs to muscles. Proteins also act as a transporter within the lipid membrane of your cell wall and assist in bringing nutrients in.

Make sure all of your meals contain some protein; it's okay to eat a fatty piece of bacon because it's better than a donut, which is only carbs and fats, and can't be used to build muscle. Along with having enough protein around to build muscle, the total calories we absorb has to be above maintenance (burned) to have enough extra nutrients to go towards growth, otherwise everything gets used for energy. We know that even protein can be converted and used for energy needs, broken down into glucose and nitrogenous byproducts, therefore it can eventually be converted to fat if in enough of an excess. However, protein is so difficult to turn to fat because there are a lot of biological pathways that the body has to go through to convert protein to usable glucose, and this process takes a lot of extra work and energy, which in turn creates a thermal effect, and the body would much rather utilize other resources first like fats and carbs for energy. Proteins take the most energy to digest and there would be a lot of wasted energy to try to turn it into fat.

Animal protein does a better job at turning on IGF1 and mTOR than plant proteins

Now because protein is the last source of energy, if you are in a calorie surplus, you don't have to worry much about fat gain because if most of your calorie expenditure for basic functioning comes from carbs or fat.

During sleep, your body undergoes a number of changes that enable healing and restoration that is critical to your overall health. Neuroscience professor and author of "Why We Sleep" Matthew Walker states: "the shorter your sleep, the shorter your life span." Sleep allows the brain and body to slow down and direct more energy towards the process of recovery. When we don't get sufficient amounts of quality sleep, these processes are short-circuited, negatively affecting energy, mood, alertness, concentration and physical functioning.

The role of protein is well established, but the importance of protein while you sleep remains to be further elucidated. A study by Dr. Res et al. found that protein ingested immediately before sleep is effectively digested and absorbed, as a result, stimulates muscle protein synthesis and enhances whole-body protein balance during post-exercise overnight recovery. Protein is extremely important during your day, but also equally important for recovery while you sleep. Dr. Snijders and his lab identified that, along with exercise training, pre-sleep supplementation of protein increased muscle mass and strength. This may also support the skeletal muscle's adaptive response to exercise training and may be useful as a nutritional strategy to maintain muscle mass in the elderly.

A muscle is more elastic and concentric when it's heated up and warmed up, that's why warm up sets are so important

Nerves get more efficient at firing, so your reaction time decreases with strength training

Progressive overload, consistency, and time under tension

The rate of contraction is important, and a higher velocity equals more tension on the muscle. Strength is defined as a high-intensity workout that requires daily repetitions, does not cause significant damage, and is not expected to cause pain.

Anytime you increase the intensity, you're increasing the glycogen burn. The higher the intensity, the greater the glycogen depletion. Walking depletes very little glycogen. Sprinting depletes the most intra muscle glycogen.

To think that you can optimize muscle size over strength by Wait 72 hours before working out again if hypertrophy is your goal

While hypertrophy is optimized from moderate rest periods, between 1-3 minutes of rest between each set vs 3 minutes

protein synthesis to take place, which takes time, and continuing repair for up to 48-72 hours after your workout. Unless its motivating you, don't worry about it, at that point, just SHOW UP.

You have to be your own coach

You don't need someone there to congratulate you and tell you you're a good boy,
like a dog

Hey, you almost died here, good effort.

Long breaks equal strength

Short breaks equal endurance

Frequency, duration, intensity

take this set till death

you can't leave reps in the tank

You can't stop just as soon as all the pain starts. that's the most important part

Failure has no emotions, you have to push yourself

You have to keep going and dig deeper

it should hurt. really really bad

You should be afraid of the work you're about to put your body through

Your body can adapt to any stimulus you place on it

Think competitive, work competitive, feel competitive

Muscle mass and strength, are apparently one of the best indicators for longevity

The best hack for improving your bio markers on a blood test is to exercise

The whole point of going to the gym and actually engaging your muscles, is not only just for muscle growth, but its also involves pushing your mind through physical pain and discomfort. Pushing your limits to build character, and creating a mindset of confidence to overcome challenges and struggles, because you have already put yourself through worse

If you're a beginner and just starting to work out, you'll get addicted because of the fast results you're seeing

Injuries, pulled muscles, and pains aren't only caused by external forces. They often result from an imbalance in your own body. A disproportionate muscle strength of one muscle compared to its protagonist. There are always two muscles to a joint so they can move limbs in the opposite directions of one another. So if one muscle is overpowering compared to its antagonist, it can create an easier opportunity for injury. The pain can simply occur because of its disproportionality. Just because of the greater tension on one side, can put strain on tendons and ligaments, as they aren't prepared for the strength they have to resist against the opposing muscle. For example, runners often get shin splints, with a known cause from having calves that are stronger than your tibialis (shin) muscle, which can be improved when the swelling goes down and strengthening that weaker muscle

Now when it comes to building muscle and causing hypertrophy, there are a few ways to work the body. 1. Stress = burn. 2. mechanical tension = heavy. 3. muscle damage = eccentric phase, which are all metabolic stressors that we need. We don't need extreme failure to initiate growth, but we do need enough of a stimulus to turn on the processes. That includes the initiation of enzyme movement to the damaged area, which also includes nutrient recruitment from protein we absorbed. With extra damage throughout our workout, leading to additional damage which induces additional needs for nutrients, repair, and growth as we continue to push beyond the boundaries.

Even if you workout 7 days a week, you're not going to be able to keep that up forever, so just enjoy it while you can right now, and don't worry about overtraining.

Your body can release 18+ hormones to communicate levels of fullness with the brain. This list includes ghrelin, insulin, cortisol, amylin, Adiponectin, estrogen, testosterone, T3, T4, NPY, PYY, GLP-1, GIP, GH, CCK, etc.

Specifically, PPY would bind to Y2 receptors on neurons in the arcuate nucleus of the hypothalamus, which then activates pro-opiomelanocortin (POMC) neurons. These POMC neurons release alpha-melanocyte stimulating hormone (alpha-MSH), which binds to melanocortin-4 receptors (MC4R) in other regions of the hypothalamus. This activation of MC4Rs ultimately leads to a decrease in food intake and an increase in energy expenditure, and in the human experience, this satiety signal can manifest in several ways, such as feeling less hungry, and a decreased desire to eat, or filling up quicker as you eat your meal.

Your body adapts meal after meal. So you don't have to be concerned about calories, because the act of eating is so tightly regulated by your appetite, that there will never be a time that you have to intervene. The mind and body are so interconnected that your body instinctively knows when to eat and when to stop.

Hunger is an easy signal to discern from other sensations, but the conscious mind cannot easily recognize micro-suggestions that subtly guide our food choices. At our level of perception, appetite could almost be considered as broad and aimless.

So if we can't use that as a reliable tool on what to eat, then we as self-aware thinkers, need to create a strategy to ensure that our food choices are healthy and comprehensive.

A diet has nothing to do with cutting calories, it's a broad term that refers to the specific category of foods that make up the majority of someone's food choices over a period of time. So all you have to do is keep track of the foods that you buy and eat, but don't track the calories because it won't help you control your eating.

Calories do matter, but counting them will cause you to change your behavior because you become too self-aware. It's like you begin to place too much importance on the effect a single component can have above all other factors.

To be honest, calorie intake is a number that should result naturally as a byproduct of your appetite and satiety. As you execute the behavior we call EATING, the body responds with internal metabolic pathways. NONE of which will ever matter to you. These biological events create an incomprehensible difference in your unconscious experience that determines WHAT, WHEN, WHERE, WHY, and HOW you will choose to proceed with your TIME.

This next choice, and next occurrence, is all dependent on the way you feel, which was determined by your behavior minutes AGO. Of course you can hit override and become self-conscious, and control what you want to do next, but this goes against inherent peace, and quality of life.

Mindfulness is good, but self-awareness and self-control is more on the side of thought manipulation rather than a transcendental existence in TIME. So although you do have the opportunity to search for perfection, you're never going to find it with the amount of knowledge you can find around the topic of nutrients, food, calories, or fullness because there is no definite answer.

You can learn everything there is to nutrition and still find yourself in the same place wondering WHEN, and WHAT will let me know WHERE or WHY I'm supposed to stop eating. It's all in your head. It always was, and forever always will be. We can choose to be consciously aware every single second, but we are not in control.

This goes the same for motivation, energy, productivity, happiness, and all other values. They can only exist purely in a state of relaxed routine, and repetition. This is the only example you need for progress towards a goal. The result of accepting life as unchangeable, is what makes it accelerate.

Knowing that you don't have to waste another single thought on WHAT, WHEN, WHERE, WHY, and HOW is what will actually allow you to reduce anxiety and overthinking. That is the only problem each of us has anyways. Comparison is the deepest cause of all insecurities and struggles and failure. So as soon as you get over it, life will become simple.

It's the act of wondering, WHAT others are doing that keeps us trapped in the mindset of WHAT am I doing wrong. Then... while you're in that emotion based perspective. SPACE and TIME is created for these problems to still exist. So as you start to pay attention and become mindful, WATCH. HOW. YOUR THOUGHTS. ARE THE ONLY PROBLEM...

If you really want to change your relationship with food, then let go of your need to have control over fullness. You already know what you should be doing, and you need to just go through life with an understanding that you are doing what you are doing for a reason, and you don't need to question it. Have fun with everything outside the realm of food, and ignore all problems that rely on using food as the answer.

At the end of an emotional debate, recognize that the world surrounds us with objects. FOOD is the only thing we can use for energy, so it's going to affect the way you perceive its value. So as you continue to read. Recognize that my intentions are aimed to downplay and diminish your preconceived beliefs around the importance and significance of a healthy diet.

Now if you really want to know everything there is to counting calories. Read something else, because from what I believe, and tried, you'll never be 100% accurate. The nutrition label we see on the side of any package is not exact, and our body is not as efficient as you think. So there is a lot of room for error.

You just can't accurately predict what is an acceptable amount of calories you can have for the day.

If you start dieting and restricting, it turns desserts into a luxury. They become rare and desirable. Dieting will make you have the strongest cravings and strongest appetite, and if you think you can fight it, you're wrong.

An example is that you don't have to have a budget to save money, but it can be a useful tool, if you struggle with intuitively doing it

You don't have to count calories to lose weight. Although it may be beneficial for a beginner to try it for a week to understand what the quality is of the food you are putting in your mouth. However, if you count calories for weeks/months,

If you constantly are stressing about your diet or calories, and not about how your body feels, then

You can't find a magical food or ingredient or statistic on the label that defines healthy

The order in which food is listed on the nutrition label ingredients list is the concentration in decreasing order of which takes up the most and which is used the least.

You are wasting your time if you are looking at the nutrition label, because it really doesn't tell you anything. You can tell just by looking at it.

The truth is that if it has a nutrition label, you probably shouldn't eat it. Real food shouldn't come from a factory. The calorie is useless unless there are micronutrients that come with it. The ingredients list is useless if the food goes through processing. The words are manipulated.

Being healthy does not mean tracking food

So for all you perfectionist out there. The FDA allows the actual calorie content of a food product to deviate by **up to 20%** from the value listed on the nutrition label. For example, if a label states a product contains **200 calories**, the actual calorie content could range from **160 to 240 calories** and still comply with FDA regulations.

If you do start to count calories, depending on how much exercise you are doing, I recommend you eat a diet where you eat 2500 calories with at least 100 grams of protein a day, and if you are truly committed to build muscle, get 200 grams. The RDA recommended dietary allowance is designed to be the minimum nutrients your body needs in a day to stay healthy. The RDA % allowances on vitamins and minerals are minimums for the day to live a healthy and long lifestyle and prevent acute illness like malnourishment, but some research still believes that these dietary guidelines are still too low and aren't for optimum health, they know it is just an average of a population that they believe to be healthy. Yet the foods and nutrition board knows this information is not clear to the consumer, and they don't create a way to keep us informed on what each individual piece of information means. The only people who understand it are the ones who look it up on their own, and purposely try to stay informed.

The food labeling regulations from the FDA allow for a 20% margin of error. For anything that says there is a certain amount of carbs, calories, or sugars in it, there could be up to 20% more. Also, some items, such as "artificial flavors" are not included in calculations for the total percentages listed on the label

It is possible to lose weight fast, and you can lose more than 2 pounds in a week, but you shouldn't.

My problem all started mentally, as I believed body figure was the solution to confidence, i wanted the fast path, so I told myself it was okay to be hungry and to eat less, and then it went further downhill when I began to count calories.

When it comes to weight loss, which is what many of us focus on more than anything else, compared to longevity or positive mood. I recommend that you NEVER start to count calories. Since everything comes back to your mindset, you will start to treat your body differently and your control on appetite will change. Instead of being in tune with how your body feels, you get into a pattern of only being able to eat 500 calories for breakfast, because that allows you to be on target to reach your goal and allows you to space out your meals throughout the day, and you force yourself to stop eating at that point whether you are still hungry or not.

Now this example is only to explain that you are wasting your time trying to count calories. Which excludes the time in wasted thought that distracts you from being able to enjoy normal everyday tasks. Like, imagine never being able to eat in peace, because your mind was always preoccupied with your weight loss goals.

Counting calories is not just a simple task you add to your list of chores every day. It's a topic that steals your free thought every time you sit down to eat. Causing you to ignore all other things that make you happy, because you have a responsibility to stay thin. This is a job that I believe steals joy, because the most important THING you can have in achieving a desired quality in life, is the time to think about topics that bring you genuine happiness.

THINKING is WHO you are, and there is nothing more important to you, than what you are thinking right now. So if you really want to claim that "counting calories" has a higher value to you, than all other pleasurable conversation topics, then keep it, because I think there are a lottttt more topics that could lead to a lot more worthwhile goals than weight loss ever could.

You have to understand that everything you think about in your free time, adjusts what you find important when talking to others. So your conversations will change to align with what you spend time thinking about. Ranging from the stories you can share and the information you learn through the internet.

Sure, you may find something interesting, and look forward to learning more, but it leads to tunnel vision, and your intentions become single minded. Just know that counting calories is something you want to avoid. It's an area of the mind that's aggressively selfish, and it's a strong set of neurons embedded in the nature of being human that can steal your attention every time you get hungry.

It's hard to get over the topic because it's a daily practice that is constantly evolving with no definitive answer. There is an entire field of research that has gone into the proportions of protein/carbs/fats that should make up your diet, and the benefits of each. There is a lot to learn, but the first fact that always gets us hooked is the answer to our Basal Metabolic Rate, and our daily calorie expenditure. These two numbers usually seem like enough to estimate how many calories you can eat for the day and not gain weight, but what people don't realize is how we don't actually absorb every calorie that we eat.

There is a transition from the lumen of the intestine, into the bloodstream that gets entirely overlooked, and the bioavailability of the food we eat can affect the amount of weight you gain per calorie consumed.

Sooo how can you eat more and gain less fat? You eat more protein, fat, fiber, and whole foods, which replaces calories that could have been coming from processed carbs and sugar. You are going to eat a similar amount of calories today as what you're used to.

If you look at your habits day after day, what do you notice about the food you eat? It's usually the same amount! So, what do you think would happen, if you decrease that? Regardless of you making that decision consciously, your body has been normalized to expect X amount of calories.

The human body is the natural calorie estimator. It's not a conscious ability! As a modern day human being, we have seen the invention of caloric measurements. There are no supporting neurons to comprehend this phenomenon.

I don't know about you, but I can't walk up to a piece of food, and understand its correlation to the amount of time in energy it will provide. I may think I understand what 2000 calories mean, but I don't have any experience with it growing up. So how could I possibly think I could have it mastered within the first couple months of learning about its existence?

We are TOLD that we have a Basal Metabolic Rate (BMR) of ≈ 1700 , but the body converts that to ATP... I don't know what that translation is, not even cells understand energy, ATP just happens to be the universal vehicle that "cellular components" harness for mechanical leverage, torque, rotation, force, displacement.

To go into a little bit of biochemistry for you.

During glycolysis, a glucose molecule consumed from your food, with basic organic molecules of carbon, hydrogen, and oxygen atoms, as we go through this cycle we receive ATP. These conversion processes are extremely complex and require very specific enzymes to facilitate the conversion. So if you are not bringing in the right nutrients, you can't make enzymes like hexokinase, phosphofructokinase, and pyruvate kinase, which are required in glycolysis to get glucose to pyruvate.

As some byproducts come off, they drive other processes, like the Krebs cycle which produces ATP and CO_2 , oxidative phosphorylation which produces O_2 , H_2O_2 , OH^- , and is a main contributor to our production of free radicals, but is a step in the production of energy with the body, and the electron transport chain which produces NAD^+ , FAD, water and protons, which can either go back to drive earlier steps to feed the chain of events and keep it efficient, or the protons could go through a turbine like protein that turns like a water powered generator, but instead of using water to push it, the (H^+) proton concentration gradient turns this turbine where $\text{ADP} + \text{P}$ wait in their positions to be put back together where the energy created from the spin of the turbine is used to put them back together.

These chemical reactions reach a few specific basic molecules that are lactate, pyruvate, acetyl CoA, citrate, etc. Which can go into different areas of the mitochondria to get broken down even further, and eventually end up as ATP or NADH or FADH₂, which are high energy electron carriers used to transport electrons generated in Glycolysis and Krebs Cycle to the Electron Transport Chain

So if we didn't have excess food, then all of the food goes through the ETC

Energy seems like a broad term, but it actually refers to ATP

ATP is like a battery, just holding potential energy

The source of energy that is used to power the movement of contraction in working muscles is adenosine triphosphate (ATP) – the body's biochemical way to store and transport energy. However, ATP is not stored to a great extent in cells. So once muscle contraction starts, the making of more ATP must start quickly.

Muscle cells are able to use ATP with oxygen, which is called aerobic respiration, or without oxygen, an anaerobic process called anaerobic glycolysis or fermentation. The process in which ATP is made is dependent on the availability of oxygen

Where an arrangement of protein complexes embedded in the wall of the mitochondria, passes their byproducts down a production line to produce ATP.

The body uses glucose as the starting point for energy production pathway where it extracts energy from basic molecules. Stored energy (energy originally obtained from the sun's energy) that your body can extract energy from by breaking C-C bonds between every molecule that make up that food. Since everything we eat is made up of carbon, we can utilize this energy.

Apparently, according to ChatGPT calculations, a 2000 calorie diet, assuming a 33% macronutrient split, would result in **X Moles** of ATP. These numbers are in short form of $X \times 10^{23}$ particles

Carbohydrates: $2000 \times 0.33 = 660$ calories

- $660 \div 4 = 165$ grams of carbs
- Each gram of glucose yields ~30–38 ATP.
- Average $34 \text{ ATP} \times 165 \text{ grams} = 5,610 \text{ ATP}$

Fats: $2000 \times 0.33 = 660$ calories

- $660 \div 9 = 73.3$ grams
- Each gram of fat yields ~9 ATP

- $9 \text{ ATP} \times 73.3 \text{ grams} = 6,597 \text{ ATP}$

Proteins: $2000 \times 0.33 = 660$ calories

- $660 \div 4 = 165$ grams
- Each gram of protein yields ~4–5 ATP (accounting for nitrogen excretion).
- Average $4.5 \text{ ATP} \times 165 \text{ grams} = 742.5 \text{ ATP}$

Total: $\sim 12,950 \times 10^{23}$ molecules of ATP

For a single muscle fiber to contract, it takes about 1-3 ATP molecules. That means that for a muscle twitch, quick hand movement, or a blink, a few hundred ATP molecules are going to be used. 12,950 ATP would power an hour of low-to-moderate physical activity such as walking, jogging, or light weightlifting, or an entire day of resting metabolic activity like breathing, circulating blood, and maintaining body temperature.

A neuron signal transmission is variable, but typically costs around 1-2 ATP per action potential. Therefore, 1,000 ATP could potentially power 500-1,000 nerve signals to power actions like thinking, or reacting. 12,950 ATP could power an entire day of cognitive work such as decision-making, focusing on tasks, memory recall, problem-solving, and mental tasks like reading, studying, or interacting with others.

Now, as you were reading, im sure you were skeptical, when you noticed that 12,950 did not add up to a full days worth of energy!!! I noticed that too when i first started reading! So where does the rest of our energy come from for normal everyday functions?

Well, what you don't realize is that these 12,950 ATP would be generated from only a 2,000 calorie diet. That is only enough for a sedentary person. According to ChatGPT an active person requires 20,000-30,000+ ATP per day, so as you can imagine, they would need to eat more calories to compensate for that! That ends up equating to 2,500-3,500 for an active person, while high intensity training would need 5,500-6,500 calories.

Then i learned that ATP is created from more than just what is available in the food. The conversion from a macronutrient to ATP, is an ongoing reaction that generates more ATP as a byproduct of cycling through the various reactions.

If you have ever taken a biology class, you have heard of glycolysis, which is the breakdown of glucose (sugar) into pyruvate (intermediary), which occurs in the cytoplasm of the cell (in the so-called empty space between the organelles by enzymes). In the early stages of glycolysis, 2 ATP molecules are consumed to initiate the pathway. Those first 2 come from our food, then by the end of the metabolic pathway, our body produces 4 ATP.

This may seem like a waste of time, but it's just an addition that is only possible because of the advanced biotechnology available in our cells. It's really like free ATP given to us through the advances in metabolism through evolution!

There is also another metabolic pathway channel that can accept incoming ATP, called the Electron Transport Chain (ETC). This accepts 2 ATP, then outputs ~32!!! That's happening in the inner mitochondrial membrane where the bulk of our energy happens! Which uses a Hydrogen concentration gradient mechanism to drive these processes to be as efficient as they are!

There is even another reaction happening in the Mitochondrial Matrix (fluid filled area). So as you can tell the body compartmentalizes its internal chemical reaction well! Intermediaries created by enzyme driven reactions are the "name of the game".

The categories separate into Electron Carriers, Regulators, Energy Conservers, Precursors, and other sub-naming categories whose responsibilities range from inhibition, altering activity, and binding flexibility, all to ensure that timing is consistent across multiple pathways. Ensuring that some enzyme is available to carry on further processing, when the intermediary arises.

This biological adaptation may not seem that important, but if you were to only survive on the energy obtained from glycolysis, by eliminating the additional metabolic pathways, then you would need to eat an absurd amount of additional calories to compensate. You may like to eat, but these numbers are completely unattainable. Here are the amount of calories you would be required to eat under specific conditions!

- No Krebs cycle - Sedentary = 1,300,000 / Active = 2,500,000 calories per day**
- No Electron Transport Chain - Sedentary = 2,300,000 / Active = 4,500,000 calories**
- No Krebs cycle or ETC - Sedentary = 4,600,000 / Active = 8,500,000 Calories**

Your body just simply couldn't handle that much food. Neither could the supply chain. There just wouldn't be enough food to support the amount of people. So it's interesting to learn and see that human evolution evolved in parallel with the rest of nature to ensure that there was no biological organism that monopolized all the food, possibly outcompeting all the other organisms for resources!

With normal functioning anatomy, we are limited by the size of our stomach, length of the digestive system, and the caloric needs of our muscle size. What you will quickly learn is that the bigger you are, the more food you can and need to eat to maintain that size.

- Humans digestive tract is ~25 feet long, and we require 2000+ calories**
- Mouse digestive tract is ~3 feet, and require ~15 calories**
- Cow digestive tract is ~150 feet, and require ~20,000 calories**
- Elephant digestive tract is ~60 feet, and require ~100,000 calories**
- Blue Whale digestive tract is ~500 feet, and require up to 4,000,000 calories**

Calories are a relative measure of how much mass you take from the food chain in relation to your energy output. Size matters, but the reason for your size is dependent on the JOB you do for ecology.

The larger you are the more you eat, yes, but the expectation is that you preserve the genetics that you were given, and pass them down to the next generation, regardless of the quality of the environment. The goal is to withstand all stressors and to continue to propagate your species.

The environment is ever fluctuating, and the DNA that makes up your body knows this. That's why there are mechanisms built into the code. These options exist within the mutations available to a population of individuals.

It turns out that it has been evolutionarily advantageous for a set of DNA to not know everything it needs to. New unpredictable circumstances happen. So therefore we see a complex system that is adapted to protect its own design.

The barrier to any living organism's continuation is its own ability to change it's behavior in an attempt to give itself a higher probability of success. This is defined as it's level of intelligence as compared to the complexity of the world around it, and it's own ability to analyze and account for the most influential environmental factors.

You are, who your DNA says you are. There is no other way around it. Nobody will ever be coded the same way you are, even if they were, they would have never gotten to experience the life that you did. These experiences in your environment define what portions of your DNA get expressed. This phenomenon is a feature of epigenetics and the WAY transcription factors read and translate your “potential being (DNA)” to the BEING you experience.

Your job and purpose is not just to eat, or to control overgrowth, it is to balance habitats of all living organisms, by going through life to the best of your ability. Your success is a combination of all the results you experience after your contributions.

The way you change your epigenetics, is to change your choices. We as humans have that ability, at least a little bit. I honestly don't know if we have any more control over our genetic outcome over any other animal species.

It may be possible that no matter how high your perceived level of intelligence is, that you have no xyz on your species continuation, at least as an individual, but as you can imagine, for any living species, the higher your populations numbers, the higher the likelihood of success across the population. So your goal is to live, and to create an environment that is safe and healthy for future generations to flourish, and adapt to the uncontrollable world that we depend on.

As you can imagine, the larger ecosystem, is the invisible hand that controls our destiny. Our DNA will be the follower of the rules it creates, and if we can't exist or continue under the new conditions present to us, then we will be like any other species that just happened to go extinct.

If changes happen slowly enough, and a set of DNA can adapt, then life can keep up with the environment, but if fast alterations are happening, then it is more likely that species will go extinct. These represent portions of the complexity that existed beforehand.

Within our larger ecosystem, it would be fair to say that we each love the way we are designed more than any other random set of individuals that we don't know. As a result, we should care about making our group grow, and determine the everlasting future of intelligence that humans represent.

We as people may want others to look like us, but more importantly we like it when people agree with our ideas. We want our ideas to spread. That's the top level deeper goal that dictates our direction as a species, and what we believe will have the biggest impact on the likelihood of giving ourselves the highest probability of continuing as a species.

DNA will follow along with the people who have made the biggest contribution, and make up a majority. In simple, we change our own individual chance of survival over others similar to us, by becoming a successful subpart of our culture.

That doesn't mean you have to outwork or outcompete anyone else, but rather be a part of the winning ideology, with the winning set of ideas, that outlasts others. It doesn't matter what that topic is, because there are 100's, but if we focus for a minute on nutrition, and we take a 30,000ft view over cultures over time, we can see that there is a traditional diet that has outlasted the ones we currently see today.

There is long standing proof of wellness, that exists not in the literature, but rather the evidence of historical meals that our ancestors were eating that is now common sense to us. These ideas of food, are deeply embedded into the ideas the surround our ideas of "what food is". Following that moral compass given to us by an accumulation of experimentation done by generations that came before us, is the answer to all intuitive choices made around food choices.

The answer is not measuring, re-designing, branding, fortifying, enriching, substituting, preserving, enhancing, or repackaging, but rather choosing untampered, pristine, uncorrupt, unaltered, untouched, natural foods. At this point I just don't know how else to say it.

FOOD is food, it always was food, there is nothing left to change. The only reason we will ever have a problem with food is if we overcomplicate what it is. This happens when we try to define what it is, what it could be, or how we can use it to our best advantage.

All you can do, and should do, is eat to the point of fullness, which will be determined by your genetic size, found in the code of your DNA. you might think that is pre-established, and unchangeable, but remember that every time you make a choice on what to eat, rather than letting the process happen naturally. You intelligently alter your epigenetically changeable transcription factors to conform to the environment that you are selectively preferring to put yourself into.

Intelligence comes in two forms. One being the decisions that you choose to make with yourself. Another being globally over generations that is not found through information available to you today, but rather through the grouping of information overtime to make and create lasting ideas that last generations.

You as an intelligent species are the designer of the future that you experience, but not over anyone else's. To be honest, the science to everything you want to know is in your own head. There is nothing left to learn, in order to learn how to do the right thing. Nothing you have been taught up until this point in your life has any factual evidence over you because you weren't informed to the fullest extent that you should have been.

Whether it be the food pyramid, myplate, governmental policies, or any program you can think of, your individual choice to go to the store and buy whatever you damn well please will still be the determining factor on whether or not you eat healthy. It has always only ever been a personal choice.

Your motivation to do the “right” thing is individualized to what you know and what you think. That is determined by how much you cared to listen to what people were telling you, and how much research you did afterwards to fact check and confirm the things you heard, and if you're like anyone else, you probably didn't do much.

The biggest risk we take as people is allowing other people to convince us that their information is useful, because this shapes the decisions we make later in our own life. It's these people who make us think they know it all, that steer us in directions away from intuition, because we listen to what they say SOOO much that we start to assume that what they have to say is important.

What you need to be told with everything you learn is that your INTUITION is more important than what you are about to hear. What I have learned about nutrition is that it is a topic too important to let other people sway what you already know how to do. The key at the end of understanding is to make the process more simple, not complex.

Remember, you're not dumb, you've been doing this for a long time. They might have a good point, but it shouldn't really impact how YOU do anything. Everything you learn is working on the subconscious level, and it should not be displayed on surface life reality in how you behave.

I already know that if you are this deep into nutrition, to be reading a book on it, you have previously looked up the amount of calories you are burning a day to get a general understanding of how much you should eat.

What I don't want you to do ever again, is to keep a mental track of how many calories you are in for the day, no matter how much you've eaten! Stay in touch with how you feel, and avoid placing any level of importance on the numbers you see.

In my opinion, we are not computers, and we do not understand numbers very well. We are designed more for interpreting feelings, emotions, expressions, and sensations. We function as thought projections, while numbers are a way to measure the physical world.

People who have been dealing with the numbers have other priorities other than to implement data into their own life. Oftentimes, it's to further the technology in how we understand real life phenomena, but there is not always a direct correlation to a easier, better, quality of life if you implement it.

With the example of calorie counting, just like anything else, there will be people who benefit, those who think they benefit, and others who avoid it. Then there will be people who use it and waste their time, and others who are worse off after using it.

Like anything, it's up to the individual, and their personal preference, but I advocate for those who want to quit, and believe in taking the side of those who say it's better not to start.

Your energy levels are not only just in your head. I think we can all agree that there is a physiological phenomenon operating the program that we are experiencing life through. Each one of our senses acts as a lens to interpret the external world. Sometimes the receptors associated with that cognitive ability are affected by the environmental factors that we choose to put our body's through.

Struggling in my opinion is an over-stigmatized word that many of us reserve for extreme moments. Well, if i were to start to use it lightly, then I would stretch it to make the claim that when society isn't struggling from an overeating problem.

I'm willing to bet that a lot of people find happiness in the act of overeating. I don't think that we as a society are unhappy that we ate too much. Nor do i think that everyone who is low energy, is only feeling that way because they ate too much junk food.

I think there is a lot of energy to be had during the phases of weight gain. It's the after-effect, once we have reached a certain weight, when we notice we need to cut back, that causes us to drop our calories, which in my opinion causes a majority of people who are low-energy to be low energy.

We as people love to eat. Those are happy moments, happy times, and happy phases. The instant there is a struggle is when we need to lose weight, and the only way we were taught how, is to cut calories, and drop them below a threshold, usually taught as below 2,000.

When i talk to people, I can hear that the people who are the most serious with their weight loss, are also the ones who drop their calories below 2,000. Others who don't go that far, don't seem so confident.

Well, it's those same exact people who are cutting their calories extremely low, who are going to struggle worse than anyone else in the long run. Whether it be relapses back up in weight, struggles in maintaining a certain weight, or a lack of confidence in themselves because of the inability to reach a low enough weight quick enough, it's these people who want it more than anyone else, and that is the "devil of despair" that holds onto them.

I believe that the problem lies not always in the quality of the food, but rather in the lie that the "truth is the calories". People DEEEPLY struggle because of this misleading information.

People punish themselves day after day. Hour after hour. Minutes after a meal, to ensure they maintain this widespread "truth". Cutting calories is not the secret, and it may just be the one reason life kinda sucks at times.

Your options are either to continue to overeat on regular occasions, and gain weight. You will have energy and be happy, if you are okay with gaining size, the biggest downsides are the future regrets you'll experience from your perception of self based on how you "think" others see you. Sooo that's one problem you can fix.

Your next option is to follow a routine where you eat the same way you are and make small adjustments with new meal prep recipes here and there. Downsides are risking staying the same weight and not achieving your goal of losing weight. Yet, staying happy with your routine because it works for you.

Another option is to meal prep all the time, repeating portion sizes and making meals in bulk. Eating an average consistent amount week after week, switching it up as you please. With the biggest risk being that your food might seem repetitive and boring as you try to stick to a self-created regimen.

While your last option is to eat something heavy and healthy at every meal, eating as much as you want, being comfortable with saying i'm done eating, then have a small sweet treat before you put everything away. This involves exercising, like everything else should, with the biggest risk being that you have to say NO to dessert before you eat your main meal. In those moments you're going to say fuck. I'm kinda craving X, and then you say, ill have it in 15 minutes.

Among all probable solutions, counting calories is not in the plan, because in the act of you trying to ensure that you stay below threshold, you're going to set an unreliable, un-realistic solution, that causes you to check the social value of every food you eat, and build an attachment to certain foods being safer than others.

Counting calories works for the first few days/weeks. Then you learn tricks, patterns, trends in what works better than others. These ideas inhibit variety, and they produce job-like tendencies, where you take on extra responsibilities with no reward rather than just for your own mental certainty.

The problem with counting calories exists when you squeeze out a couple more calories into your goal because you can't count calories without having one. The goal is to always get better and better at what you're doing. If you're putting in effort, there is always an outcome required to be seen.

The reason why you don't need to count calories... is because you can have more calories than you think you do. Even when you choose to lose weight, a calorie deficit can be achieved through the same amount of calories as you were previously eating. So leave your calories alone.

The trick lies in switching the calories that your body gets from processed junk food and trading that spot on your plate for heavy filling whole foods. Two main reasons are the difference in the Calorie Ratios between carbs/fats/proteins, and the micronutrients held within each of these nutrients. Some clear differentiators are:

Processed food items

- **Bread - Carbs: ~75%, Fat: ~13%, Protein: ~12%, stripped of fiber, B vitamins, and minerals, contributes to insulin resistance**
- **Fries - Carbs: ~60%, Fat: ~35%, Protein: ~5%, high in trans/unsaturated fats**
- **Hotdog with bun - Carbs: ~30%, Fat: ~55%, Protein: ~15%, high sodium content leads to blood pressure issues**
- **Pizza - Carbs: ~50%, Fat: ~35%, Protein: ~15%, missing vital nutrients such as vitamin A, vitamin C, calcium, and magnesium.**
- **Pasta - Carbs: ~75%, Fat: ~15%, Protein: ~10%, cheaper sources of protein**
- **Chips - Carbs: ~38%, Fat: ~57%, Protein: ~5%, lose essential B vitamins (e.g., B1, B2, B6, folate) during processing leaving your body more susceptible to fatigue and poor immune function, low in antioxidants,**

Mixed Whole foods

- **Chicken Wraps - Carbs: ~32%, Fat: ~29%, Protein: ~39%, low in sodium**
- **Chicken Nuggets - Carbs: ~30%, Fat: ~50%, Protein: ~20%, . The high sodium content can lead to dehydration and bloating**
- **Hamburger with bun = Carbs: ~35%, Fat: ~45%, Protein: ~20%**
- **Burritos - Carbs: ~44%, Fat: ~30%, Protein: ~26%**
- **Meatloaf - Carbs: ~18%, Fat: ~53%, Protein: ~29%**
- **Chili - Carbs: ~38%, Fat: ~24%, Protein: ~28%**

Whole food items

- **Oatmeal - Carbs: ~68%, Fat: ~17%, Protein: ~15%, still has fiber**
- **Sauteed meat and veggies - Carbs: ~14%, Fat: ~46%, Protein: ~41%, offers vitamins A, C, K, and B vitamins, and the protein from meat is more bioavailable.**
- **Eggs - Carbs: ~3%, Fat: ~63%, Protein: ~34%, give you the healthy fats your body needs to absorb fat-soluble vitamins like A, D, and E.**

Nobody claims that science is boring, but it's not practical to spend your time learning it. Unless you're going to spend everyday thinking about it and maximizing your lifestyle to accommodate for the new research coming out, you're wasting your time. It takes a lot of work, and you have to have the time.

We all live complex lives, with more than one set of responsibilities. Of all things you could spend your time on, narrow your list down to something that makes you money, somethings' that makes you happy, rest, and put the rest of your time into building your relationships with others.

You're just not going to get the full benefits of it that you are wanting unless you make it your career. Maybe you can, maybe people do, but there is an easier way, and that is to just relax, enjoy life, get your plate, fill it up with healthy food, and eat it. Your nutrition coach would love it if you quit eating processed carbs forever, but the truth is, that if you're anything like me, your discipline won't last forever, and you'll just have them again eventually.

Don't worry about it, just have it, and realize that you'll do just fine if you enjoy life.

For those of you who really want to know more about nutrition, stop being advertised to. Your mindset is subject to manipulation through marketing. You don't really need to know, but online culture's got you wanting to.

Im going to try to summarize it all real-quick in short. You don't absorb all the calories you "eat". We poop. Those are undigested, unabsorbed calories. That takes up 5-10%, depending on the bioavailability of the food you eat. Healthy food oftentimes has more, less bioavailable components like fiber.

Fiber soaks up water and takes up space. This fills you up with volume in the stomach, and intestine, leaving less room or desire for more food. Fiber allows the food to slide through faster, slows down the rates of sugar absorption, and fosters an environment for a healthy microbiome.

Your gut microbiome can either thrive on eating fiber, or fight to survive off of sugar and fat. These bacteria give off a byproduct either way, if they are healthy and happy, we receive beneficial short-chain fatty acids, which promote gut health. While the stressed microbiome leads to inflammation, bloating, constipation, infection, sensitivity, allergies, and imbalanced hunger hormones.

Protein, fats, and fiber help slow down the digestion and absorption of carbs and sugars found hidden in the foods we see widely eaten in an average american diet. The goal of eating healthy should be to slow, and delay the absorption of glucose into the blood. This helps prevent spikes in blood sugar, and reduce susceptibility to metabolic diseases like diabetes, obesity, fatty liver, inflammation, hypertension, and atherosclerosis that are caused by excess exposure to sugar calories.

Sugar is the most easily recognizable form of energy to the human senses, that is also used commonly within the cells for immediate fuel. SUGAR is GLUCOSE. Now, we all know that mitochondria processes glucose to generate energy, but did you realize that the mitochondria can get overloaded?

SPILLOVER, OVERFLOW, SPILLAGE, SURPLUS. However, you want to say it. Too much sugar means you exacerbate oxidative stress, aging, strain, organ damage, lipotoxicity, and worst of all, you get fatter, and insecure... the American Obsession!

We all can admit that based on our current habits, there is room to improve, but why don't we? Well, it's probably because nobody can answer your questions...

- Will eating healthy food save me money?
 - Does healthy food actually make me eat less?
 - Will I be able to find healthy food in a time crunch?
 - Is it possible to get my family to eat all the same foods?
 - Will healthy food make me feel more energetic, and motivated?
 - Does healthy food really give me better emotion/mood regulation?
 - Does healthy food work better for weight loss than cutting calories?
 - Will these healthy foods taste as good as what I'm eating right now?
 - Will I feel like a better version of myself, when I eliminate junk food?
 - Will healthy food actually help me avoid these common health conditions?
 - Will eating healthy food allow me to live longer than modern medicine can?
-
- Biometric Tracking - For real time blood nutrient feedback
 - Healthy Comfort Foods - Filling and only nutrient rich ingredients, easy to go to flavor
 - Electrolyte-Enhanced Smart Water - Designed to match your most current nutrient needs
 - Smart Cooking Recommendation Systems - AI tray like placeholders that encourage healthy choices and recommend next additional toppings for a dish
 - AI-Integrated Shopping Tools - That advises you to only pick up certain items and only walk down specific aisle, dependent on what you need rather than what you want
 - Instantaneous-Action Supplements - That alter mood, thought, and desires for current decisions you need the initial motivation for.
 - Plates with Portion Size Detectors - Understanding what is on the plate based and reacting with signals to indicate healthy/unhealthy behaviors that can be trained
 - Next-gen Nutraceuticals - Combining bioactive compounds to force desired effects
 - Functional Chewing Gums - With healthy nutrients to alter mood and appetite desires
 - Home Based Pantry Grocery Inventory - Reminding you to restock on healthy foods when they run low, but reducing notifications on unhealthy foods
 - At Home Convenient Healthy Snack Dispensers - Variety of healthy mini bite size snacks

- Healthy flavor enhancements for engineered nutrient rich foods - Best as humanly possible superfoods, that are only vitamin, mineral, and micronutrients based

Invent this if you don't like doing the work yourself

So unless you can live and survive off of these currently undeveloped technologies, then you better be eating a healthy diet with lots of variety, otherwise you're going to be dealing with these:

- **Protein Deficiency** CAUSES Muscle Loss (Sarcopenia), Weakened Immune Function, Hair Thinning or Loss, Poor Wound Healing and Edema
- **Calcium and Vitamin D Deficiency** CAUSES Bone Density Loss (Osteoporosis), Dental Issues, Muscle Cramps and Spasms
- **Fiber Deficiency** CAUSES Chronic Digestive Issues: Constipation, bloating, and irregular bowel movements, Increased Risk of Diverticulosis: Development of small pouches in the colon, Higher Blood Sugar Spikes, and Elevated Cholesterol Levels
- **Omega-3 Fatty Acid Deficiency** CAUSES Cognitive Decline (Alzheimer's, Dementia), Anxiety and Depression, Dry Skin and Brittle Hair, and Increased Risk of Heart Disease
- **Magnesium and B Vitamin Deficiency** CAUSES Chronic Fatigue and Poor Concentration, Muscle Weakness and Cramps, Insomnia and Sleep Disorders, and Peripheral Neuropathy
- **Zinc and Vitamin C Deficiency** CAUSES Weakened Immunity, Slow Wound Healing, Skin Issues (Acne, Dryness), and Loss of Taste and Smell:
- **Antioxidant Deficiency (Vitamins A, C, and E)** CAUSES Vision Loss (Macular Degeneration, Night Blindness), Accelerated Skin Aging, Chronic Inflammation and Oxidative Stress, and Increased Risk of Cancer
- **Iron Deficiency** CAUSES Fatigue and Weakness, Pale Skin and Brittle Nails, Restless Leg Syndrome, Impaired Cognitive Function
- **Healthy Fat Deficiency** CAUSES Hormonal Imbalances, Infertility, Dry Skin and Brittle Hair, and Fat-Soluble Vitamin Deficiencies (A, D, E, K)

- **High Sugar and Processed Food Consumption** CAUSES Type 2 Diabetes and Insulin Resistance, Non-Alcoholic Fatty Liver Disease (NAFLD), Tooth Decay and Gum Disease, Energy Crashes and Mood Swings, Obesity and Increased Fat Cell Growth, and Food Addiction and Cravings
- **High Sodium and Low Potassium Intake** CAUSES Hypertension, Edema and Puffiness, Muscle Weakness, Heart Palpitations and Arrhythmias
- **Sedentary Behavior** CAUSES Poor Posture and Joint Flexibility, Weight Gain, Varicose Veins, Weakened Core and Back Muscles
- **Sleep Deprivation** CAUSES Weight Gain and Overeating, Reduced Cognitive Performance, Weakened Immune Function, and Mood Instability

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Biggest loser weight gain

No more than 2 pounds per week

Americans [waste](#) about 141 trillion calories worth of food every day

You can't eat only just veggies.

Do not start drinking a full glass of water before you eat. Its not natural.

Hydration is the reason for water. It's an all day task.

Filling your stomach artificially only creates misinterpretations of satiety cues

Dont stretch out your stomach any more than you have to, to get full. That stretch barrier is your best friend when your trying to lose weight and get full faster

The recommendation is to chew each bite 40x, which is an example to the consistency of applesauce, and by chewing your food longer, you can allow time for your body to release more hormones to your brain that signal fullness and satisfy hunger. Have you ever heard that it takes 20 minutes to feel full? Stop worrying... just be normal

Dont snack on chips before dinner, eat something real

while also having less concentrated nutrients to be absorbed, lowering absorption rates in multiple ways.

Fiber slows the absorption of sugar which

that doesn't get absorbed leaves a residue in the colon, this is a bacteria.

Apparently the food we eat is a residue left in the colon from all food we eat. This is called the gut microbiome, which thrives on fiber. As an organism these bacteria actually consume some of the leftover food that we don't absorb from the food we eat.

The food chain is a complex of biodiversity. The variety in the living ecosystem, is the reason for what we believe to be the complexity of life.

Information comes in like the news, with a burst of high value, high impact insight, that is designed to initiate change.

isn't our group of people we know

has that hierarchy of intelligence, if they do, the

for yourself. You

Your success among the larger population is and for your

Food chain

Yet, even though we may “consume” that many calories. Not all of them end up in our blood stream, because there is always a selective barrier that nutrients must pass through before entering the body.

A diet may imply “calories in”, and you may think that you can track “calories out”, but like i’ve said before it’s really hard to track. Our body may be efficient at converting food calories to usable energy, but we as “biological thinkers” are predisposed to fail when it comes to deciphering calorie intake, and calories left to spare.

There has been a lot of research in regards to nutrition, and it’s well understood! I think the problem is the gap in information between what the researchers know and what the public hears from them. Once you accumulate information, it has to be condensed for others.

That's where marketing happens and writers layout information in a way that others WANT to hear, and readers interpret information in a way that aligns with what they WANT to hear.

because whole foods have a larger variety in fats, and proteins

matters in the way the body handles each of them. The determining factor is how much energy your body has to work with after you finish eating. Processed foods are metabolized quickly, while whole foods take longer to absorb and convert to ATP.

That “perceived energy” you notice throughout the day is almost directly correlated to the level of metabolic activity on the cellular level. If that is true, then anytime you are processing calories, your body maintains its satisfied state, allowing you to feel active and energetic.

Your body tries to match the amount of calories it is bringing in. This can be observed as the body displays its capabilities in its own size and the amount it shows movement. This holds true under the condition that you are as active as your “energy” will allow.

Your body can self regulate itself as you bring in more food by increasing Non-Exercise Activity Thermogenesis (NEAT). This makes you fidget more and burn extra calories while you’re sitting around. This not only causes a thermal energy effect in the body, but increases anticipation for the chance to exercise, both burn calories.

A sedentary person will not benefit from these opportunities the same way an active person would. The more exercise you do, the more calories you burn during your relaxation time.

ENERGY = BMR + TEF + AEA + NEAT + EXCRETED + Exercise + ANY LEFT OVER
PROTEIN GOES TO MUSCLE and any LEFT OVER CARBS AND FATS GO TO FAT

- BMR - least amount of calories needed for the body to keep all organs functioning and continually function without deterioration on bedrest with no activity
- TEF - Thermic Effect of Food for the body to break down, digest, absorb, and metabolize the nutrients taken in. Protein requiring the most energy to make usable = 10-30% of cal
- AEA - Accessory Energy Admitted. Energy to run accessory functions that aren't required to live, like taste, touch, eyes, hearing, pleasure sensations of dopamine activities, etc.
- NEAT - Non Exercise Activity Thermogenesis - energy to do normal everyday tasks. Neat increases with Post Exercise Oxygen Consumption (PEOC), burning more energy all day long, up to 2000 calories
- EXCRETED FECES - food that passes through and simply doesn't get absorbed. Poop has calories
- Excess calories from protein - can go to repair and build new structure

BMR is often over 50% of your daily expenditure, if you exercise a lot, this percentage goes down

it doesn't have to be true

Down below there is a convoluted example of the differences between different diets with 200 calories burned through exercise. Which you can get from walking or running 2 miles once a day, or 1 hour of restriction lifting. If we are active we can be eating around 3000 calories a day and easily control our weight. The problem comes when we eat processed foods and repeatedly start eating an absurd amount of empty calories, and not getting sufficient exercise

Eating a diet with no protein, just carbs + fat = 10% TEF

- Estimate 3000 Calories eaten today and NO WEIGHT CHANGE = 1700 BMR + 300 carbs and fats TEF + 0 protein TEF + 100 TEA + 500 NEAT + 200 exercise + 200 feces
 - 500 NEAT from walking to car, picking up food, standing up every once in a while, etc. over the whole day. AND EPOC because your metabolism is still elevated from your run or workout
 - No muscle gain, just burning calories, any extra goes to fat

Eating a diet with mostly protein making up 30% of diet, where protein can go to repair and growth

- Estimate 3000 Calories eaten today and WEIGHT LOSS = 1700 BMR + 200 carbs and fats TEF + 300 protein TEF + 100 TEA + 500 NEAT + 200 exercise + 200 feces
- Burned extra 200 calories over the day just by eating a different food
- Leading to weight loss over time
- Potential muscle gain if calories are over maintenance

You can't be this accurate however. It's difficult to calculate how much energy is spent doing these extra activities throughout the day, you can try, but there are so many variables that come into play that complicate things and make it hard to calculate out. You would need to know how to calculate all calories burned throughout the day. Any exercise or normal activity like additional steps taken in the form of NEAT. Which your fitbit isn't going to be able to accurately keep track of, and is just an estimation, so don't overthink it. Don't waste your time trying to attempt to calculate your calories unless it is something that you use to just keep yourself accountable for what you ate.

Have you ever thought about whether you burn more calories while exercising or when you are not exercising? Exercise itself does not burn a lot of calories right away, but it does help to increase metabolic processes in your body so that you burn more calories overall throughout the day. Upregulating your metabolism for hours after exercise. Along with this upregulation of energy burned, you will consequently feel more energized. Although you may imagine being tired from the workout, it usually makes you more productive, because you're pumping more blood through the body, have a higher heart rate and getting more oxygen to the brain and rest of the body. There is also exponential productivity, which is why taking the time out of your day to make your bed is so important because it gives you a motivation to get started early and be productive all day long.

Exercise allows you to be more sensitive to your satiety signal

Exercise also helps with your digestive system. If you are sedentary then your gut will be sedentary, you need to get out and get moving, to help stimulate your bowels.

Exercise encourages long-term, high energy needs that last all day and increase how much energy you expend after working out. A sedentary person won't benefit from the extra advantages of exercise, since they won't need to use any extra nutrients for growth, everything will just turn to fat over maintenance. For the individuals who exercise, many of the extra calories can go towards muscle and tissue repair, if its the correct nutrient (protein). By simply choosing the right foods you will feel more energetic and have a desire to go workout or do some extra walking in the hobbies you enjoy. If you get your day started off being productive, then the more productive you will be throughout the whole day, and have a desire to continue being productive, resulting in doing more exercise than you intended to. If you physically strain yourself enough, your body will have to work harder to send nutrients for growth and repair. With exercise you will be able to consume more calories, not gain fat, and be able to put your nutrient resources to repair the body, because extra calories will go towards this process.

It's hard to know where all of your calorie expenditure is going. Knowing now that your BMR is +/- 1700, it's not obvious that the majority of your calories expenditure comes from your basic human functions, unless you are extremely athletic or constantly exercising. Since a mile of running or walking is close to about 100 calories spent. Running and walking burn a similar number of calories burned per distance covered, however, higher intensity activities cause the body to have longer lasting effects throughout the day and preserve muscle mass. Once you account for walking and workouts, we as humans will need more calories than just fueling your basic processes, to fuel the working system and continue metabolic processes. This will either come from stored fat or eating more food. Your body will regulate itself, and try to match the calories coming in, by turning off non-essential systems, and decreasing your activity and functionality. Your body can also increase its absorption of the food and become more efficient at bringing nutrients into the bloodstream, if it thinks food is in limited supply. If you restrict your calories, and try to limit yourself to anything under 2,000 calories, you can actually make your BMR and NEAT go down. So if you cut your calories by 500 calories, your body could choose to downregulate and spend 500 calories less.

Even though there may be a person who knows it all. They can't tell you everything they know because a lot of it is intuitive.

A calorie researched outside of your body is a lot easier to track than it is once it gets inside.

I think the research is well understood, but when it comes to translating the information, to alter human emotion, there is a disconnect and important information gets left out, so people go out to apply what they learned with little to no regard on how much of that piece of the puzzle was going to benefit their personal choices and how they use that to alter an outcome.

It's more of a natural process that is better off left alone. I have spent a lot of time trying to determine how much food I should eat. Taking advice from anyone I could online. The information always ranges from calorie calculators, counters, nutrient splits, and affirmations.

The practice of living a healthy lifestyle is not about tracking your food, taking supplements, or making sure your exercise routine is perfect. It's all about learning what intuitive eating is all about, doing what you know you are supposed to do and pushing yourself in the gym. When you get to the point where you are willing to make a change and you start asking people for tips on how to get bigger, stronger, and stay healthy, that's where you can get lost. Not many people really know what the truth is, they just know they have been doing the same thing for years.

Yet, nobody out there tells you to stop doing it, but rather just how to do it better. Over time, I found the best benefit in letting go, and realizing that this is more of a waste of time and a hassle than it is helping. So

Discussing how we invest energy just to prepare the nutrients to get to a usable form, really shows how inefficient our bodies are at processing food for energy. As we get into the difference between whole foods and processed foods, you will understand how big of a difference there really is. With additional calories burned coming from the thermal effect from specific food variations, between carbs, fats, and proteins. As you think about how inefficient our bodies are, recall how many pounds of food you eat in a day/week/year, and how much money you spend at the grocery store each week

Put all the food you eat in one day out in front of you and appreciate how much ATP your body uses in order to utilize all the ATP right out in front of you. Although some of it is building blocks and enzymes, at the end of the day, a big majority of it will be turned into energy and that is just what your body does every single day, burns that much energy

So after we assume for calories lost in feces, of the 90% absorbed into the body, and we are assuming it took an additional 10% of the value of those calories taken in, to put them through conversion processes, we are left with only 80% of nutrients absorbed after metabolization (causing a thermal affect in the body).

Reaching a point where the body has converted the food we ate to ATP, that our cells can actually use to carry on their daily functions to survive, and complete exercise.

Considering the daily calorie expenditure throughout the day, there is a lot of energy required for activities in the body. Your Basal Metabolic Rate (BMR) is a term used for the energy expended just to keep you alive if you were on bedrest. These are the basic functions that use up the most energy throughout the day. The average person's resting calories burned in a day (if you were to lay in bed all day) is around 1700. This basic caloric need controls hormone levels, keeps organs running, does non-essential functions like nails, hair, our five senses, brain functioning, and etc. The extra energy taken needs to be accounted for and used for functions like moving around and completing tasks. So we still have to account for other calories if we want to grow and put on mass

Your metabolic rate can be measured from how much oxygen you can see, and how much carbon dioxide you expire?

When it comes to eating, digestion, and energy conversion our body is too complex to fully understand every single process, but we can look at the broad picture of what is happening. Our hormones and internal functions are impacted by every individual ingredient in the food we eat.

My point of saying all that is I THINK we need more calories than the normal media sources say we do!

These numbers really work well if you are eating healthy

By the end of all this energy production, a 2000 calorie diet has saved you from having to consume

produced X ATP to work with. So instead of only having X from tradition methods, you have gained an additional X ATP!

Is a necessary input for various reactions that help generate more ATP

For short bursts of activity (lasting up to about 10–15 seconds), the body relies primarily on the phosphagen system, which regenerates ATP by breaking down creatine phosphate (CP) stored in the muscles.

This system can provide ATP very quickly but is limited in duration since the stores of creatine phosphate in the muscles are finite and deplete after about 10-15 seconds of maximal effort.

running at a moderate pace can burn up to 600-900 calories per hour for an average person

(like maintaining cell activity, heartbeat, breathing, etc.) and light to moderate physical and mental tasks. However, intense activity (like sprinting, weightlifting, or even long periods of thinking) can require far more ATP.

Protein synthesis, cell maintenance, and active transport all use ATP at a low rate.

This would also provide the energy needed for ongoing cellular maintenance: keeping your cells healthy, your heart pumping, your digestive system working, and supporting other physiological activities like immune response, muscle repair, and tissue regeneration.

athletes or people with physically demanding jobs might consume 3,000-4,000 calories per day, and in turn, they would generate much more ATP to fuel their activities.

12,000 ATP would fuel 3,600-6,000 muscle contractions. This is enough for a significant burst of activity, like performing multiple rapid movements or maintaining muscle engagement for a short period.

Foods like meat, eggs, dairy, beans, potatoes, oats, nuts, veggies, and fruit, are full of healthy macronutrients that should make up the basics of your diet.

-

The truth is, your mind changes, and your body's healing follows. Whether or not it's altering the neurotransmitters, hormones, endorphins, stimulants, receptors, cofactors, electrolytes, enzymes, or available energy. The answer isn't 100% clear, but after 1000's of case studies, and anecdotal evidence. We know it's more than just placebo.

When we eat, the receptors in the body send a signal to the control center, describing the current conditions, and available supplies. This is the business of the body, because this is the currency that keeps the business running. As you can tell, it's a lot more complex than just dollar bills.

The body is designed to experience reality, and provide a service. It gets paid with food, safety, and other psychological needs like social belonging, esteem, and self-actualisation, but NOT one of these controls the rest of the body. They are all just supporting systems to ensure the business runs as smoothly as possible.

Without a smooth, flowing, connection between them all, there will be moments of chaos, disruption, misunderstandings, conflict, frustration, misinterpretations, disengagement, inconsistencies, missed opportunities, resistance, confusion, uncertainty, inefficiencies, unbalanced priorities, reduced productivity, lost potential, diminished trust, and ultimately, failure to thrive.

Believe it or not, if you pay attention to any interaction within the natural world, ranging from predator-prey relationship to traffic flow, you'll see that these interactions resemble complex networks in the human body. Similar to the way animals may "play on/play out/play against," cells within the body constantly communicate, adapt, and compete to maintain balance. These interactions demonstrate a relationship dynamic required to maintain stability in any ever-changing environment.

Real-time physiology is fascinating, but we can't control every detail, because our technology, food, and environment are still only just inputs for the body to assimilate. Innovation has only progressed to the point of intervention. Yet, there still seems to be no alternative superfood, superhuman metabolic process, shortcut, tool, or solution to eradicate the need for consistent, healthy food and lifestyle choices. So unless you can come up with:

So without having the ability to control what our body is doing, we can reasonably assume, admit, and acknowledge that we are responsible for the way we are feeling. Anddd if it is true that our technology is limited to how it can alter our choice, perspective, and willpower, then we need to ensure that our goals are aligned with the question of "How can I do this myself, and be the best version of myself?"

This internal pursuit towards "more consistent healthy habits" is the mindset we need to all work towards. There is no official end towards "progression," because you have to continue to bring in food. So how can I convince you that you have to bring in a wider variety of food than you are doing right now? What would you have to hear to change your ways?

I follow the same lifestyle as anyone else, and that's why I am calling this out. GET OUT OF YOUR ROUTINE. We all go through phases of having a favorite few meals. Just remember not to stay there too long. Eat what you enjoy, but remember to switch it up CONSTANTLY! Find something different on a regular basis, and make sure you never get stuck with a small list of favorites!

Eating healthy has nothing to do with the label of ingredients on an entree. It's about how many different ingredients have you exposed yourself to over a set of weeks, months, and years. Of all the advice you could possibly get, the one that would have the greatest impact is to make sure that the food you are choosing right now, is different from what you ate yesterday, and the day before that.

It's just supposed to be different ingredients. You can call it the same thing, just as long as you put something else in it. The wider the range of options the better. There is no exact set of days, weeks, or months, before you can reset your mental ingredients list, because the entire goal is just to continue to make it more varied week after week.

Adding one more ingredient every time you're willing to give one more a try! The ultimate goal would be to maintain this level of accountability and to consistently set goals of making yourself do better. Eventually willpower breaks, and you fall off track, but that's not a reason to be worried.

We all go through phases of eating more one month and less the next. It's not like you have to work on getting better within the month, because you shouldn't be framing your mindset around short period goals, the solution comes from thinking in long term eating arrangements and meal styles.

Food is classifiable into categories, but I think we leave them to generic... Proteins, fats, carbs, and alcohol. A better grouping in my opinion would be

Pleasure Foods - 10-15%

- For pure enjoyment.
- Examples: Ice cream, chips, pizza, cookies.
- **Evenings or weekends**, or as a treat after a meal
- When you want to relax, unwind, or enjoy yourself.
- During social events, celebrations, or as a reward.

Long-Lasting Foods - 30-40%

- Keeps you full and steady.
- Examples: Oats, beans, nuts, eggs
- When you need to stay full and energized for long periods, like during busy workdays or before a physical activity.
- As the main part of your meals.
- **Breakfast** or **lunch** to provide sustained energy throughout the day.

Quick Energy Foods - 10-15%

- For a fast pick-me-up.
- Examples: Fruits, honey, granola, smoothies.
- **Mid-morning** or **afternoon snack** to recharge.
- **Pre-workout** or **during a quick energy dip** (like feeling sluggish or tired).

Repair Foods - 20-30%

- Helps rebuild and recover.
- Examples: Beef, chicken, tofu, yogurt.
- **After exercise** or in the **evening**, when your body needs to recover.
- After physical exertion (workout, long walk, etc.) or stressful days.
- You feel tired, sore, or in need of muscle or body recovery.

Convenient Foods - 10-15%

- Easy-to-grab and hassle-free.
- Examples: Protein bars, canned soup, sandwiches.
- When you don't have time to cook and need something quick but still nutritious.

- On-the-go or when you're in a rush between activities.

As you can see, after everything I've said about the negatives behind processed carbs. They still fit into a healthy diet... There is no reason to try avoiding them forever, because it's just easier to allow them. You've been exposed. You know they exist, so you're going to crave them here and there.

Food is easy to overeat, and I think we can all agree that willpower and discipline are the reason for this. We can see charts, graphs, and recommendation lists all day long, but that still doesn't change what we pick from the fridge or how much we eat of it, because our brain doesn't comprehend abstract configurations.

Our mind has a function and that is to understand the way the body is working, and adjust, so that it doesn't have to work as hard next time. This inherent instinct is energy conversion, which in my opinion is a "not so well understood concept" in society.

We don't need to know anything about Glycolysis, Gluconeogenesis, Lipogenesis, Beta-Oxidation, Ketogenesis, Proteolysis, Electron Transport Chain, Urea Cycle, fermentation, or etc, to know that if you eat something organic, the body is going

that I think society seems to have a misunderstanding of how it works.

determining factor

quality and quantity, so what information is going to alter our perspective so that we can

The inhibiting factor that we are all looking for is the playbook on how to reduce the cravings.

People can walk up to your fridge and see how healthy you are

99.9

You have to maintain muscle otherwise your metabolism will lower and it will be easier for you to gain weight when you start overeating again

There is no weight loss fast scheme

Pickiness on when you eat, not what you eat is important

If you're craving it, just eat it, give it time, you're going to have it later anyways

Preparing less food is not hard, working out consistently is not hard, setting goals is not hard, and neither is buying healthier options. The HARDEST part is not eating, when you want to eat. So don't set yourself up for that to be the case, and don't allow that to be your mindset.

The best advice anyone can give is to reduce the amount that you use them for now on. Whether it be a positive benefit to your self-image, longevity, energy, focus, digestion, or well-being, something good will come from it, and you'll feel better about it.

I can tell you that fiber helps fill space, and slows down the absorption of sugars, but that still doesn't change how much you eat. Neither does telling you that high intensity exercise helps your metabolism stay high all day. The list can go on with fun little "secrets", like how meat takes extra calories to metabolize, so it causes a thermal effect.

Choices are simple if you allow them to be.

Just find ways to distract yourself from getting bored, and do something you enjoy. Pick everything you do as if it is something you enjoy.

The science behind metabolism doesn't help your self-control. That's the truth I never realized. All the research I did only made me more self-conscious with my choice possibly not being the right one.

I think that eating around others is really traditional,

And if someone is eating alone a lot, they probably have an eating disorder

Salty then sweet is the order in which you should eat foods for optimal satiety

You cant tell people with an eating disorder that the food they eat is not going to turn into body fat within a day, because according to what i read online, it does.

Your goal just has to be getting them to stop researching stuff online as they look for answers. Its just better not to think about it

Believe it or not, but your brain can use different amounts of energy based on the type of thinking you do. For example, chess players can burn up to 6,000 calories a day during tournaments, because their brain is using a different amount of energy based on the level of focus. While the average resting brain would only burn 260 calories per day.

I used to try to go to the gym after every time i ate because i was just so nervous that sugar would turn into fat if i didn't burn it off right away

You aren't going to eat an orange peel, so why eat other garbage? Why are you overthinking how appetizing something is?

Have a plan on what you're going to do with left over food... compost is one of them

What happens when we go past our satiety signal, is that we trick our body to thinking we have limited resources. The system starts assuming that you are overeating for a reason, and that must mean the food is limited, so fill up on it. Like when a lion gets a kill and it gouges itself. Eating as much as it can, because it never knows when it will find food again, and a lion never knows when they will have to defend their food from another predator. So they have to eat fast, and mindlessly. Forgetting how full they are, because survival is more important. It's a primal instinct.

Now when im in a position where im likely to overeat, I only pick foods that are high in protein and veggies along with it, and i have found it isn't possible for me to overeat on that. My body tells me when to stop, and ive learned how difficult it is to binge eat on protein and veggies. It just wont happen.

During these types of meals (like a buffet or holidays)

Create your own categories, and make sure you get one serving from each category per meal, that's when I feel my best.

The cravings you have are usually telling you what nutrients you are lacking.

Regulation in blood sugar, xyz has a direct influence on mood swings, cognitive fog, impairment, fatigue, clarity, resiliency, processing speed, neurotransmission, conversion, metabolism, adapting, function, depression, disorders, motivation, memory, learning, disturbance, engagement, focus,

All on a spectrum, so unless you claim that your brain is running at 100% efficiency, then your diet is probably affecting you negatively.

There are sensors, indicators, and receptors

The best diet is low in sugar and high in fiber

Many of us resort to calories counting for weight loss at some point in our life.

Eating is just an action, not a reward.

You shouldn't look at foods as being unhealthy, instead they just aren't foods for you.

I was so focused on impressing others that i could handle the pain of cutting calories

I was not taking care of my own body

Your body becomes as efficient as possible, and starts to decrease your excessive movement, by decreasing your motivation to get up and move around. You become so tired in a strong diet phase, that you just want to stay sitting, and not really do anything.

“If you don't limit your calories today, then you don't get to eat tomorrow”

I believe that throughout our whole life, we will be addicted to something, the trick is, you get to take charge of what you want that to be. Right now, I'm addicted to this book, podcasts, protein, and working out. I believe these to be healthy addictions, but what happens when I finish the book? I'm going to have to replace that time with something, and I know I need to replace it, but there is no way for me to know in the future if I will become a workaholic.

Not everyone should chase after the common goal,

I had no program and no previous knowledge, I learned everything myself through trial and error, and finally after losing the battle, I started looking for advice.

Dont look, just keep doing what you're doing

I've had other addictions in the past that I'm aware of and not proud of, but what if I never would have pushed myself to find my limits? If I never tried to see how far I could go? If I never tried to take the risk, to see if I could live a lifestyle where I stayed shredded all year long? You wouldn't have this book, that for sure. I wouldn't have done the research I did to get out of that low place.

Life is not that hard. We can do anything we want, yet we still hold onto our habits as if we need them to survive, and we overthink what might happen if we don't

Eating a variety of healthy whole foods over time, is the only solution.

using every material including muscles and tissues to create energy just to keep the brain and organs until one of them fails and turns off. Once you can't produce a necessary amount of energy to support the whole system, the organism dies.

Losing the weight is not worth it when you see all your past work going down the drain

I was like i've been low energy before, it's not that bad

It's like the more you lose weight, the harder it gets to keep resisting the snacks.

Although, each one of these diets will work temporarily, they become impossible to maintain the longer you do them.

Yet when i started, i thought i could handle the low energy better than anyone else.

my mind went straight to bingeing.

of dopamine because that feeling of euphoria is associated with every positive memory in the past.

, and we like positive results. Dopamine is a biological tool that would have evolutionarily given us guidance. Intuition is the word we use for this collection of memories, experiences, opinions, and worldviews.

I would spend time meal prepping "low calorie foods", timing them out for my whole day. Reminding myself that i would eat my oatmeal at 8am, apple at 10, sandwich at 12, granola bar at 2, and home by 4. And then after all that mindfulness, i would have it all for breakfast. I just ate everything that was in front of me. That's because the foods I was preparing were not satiating. They had mass but weren't getting rid of my appetite. It took me a while to finally drop the idea of only eating low calorie foods.

I think that so many of us are addicted to sugar, and almost every single one of us enjoys the act of eating.

We don't actually care about the quality, or how much we ate, or even our weekly budget, as long as we are eating something

the first thing you ate was the first thing you saw, and it wasn't a healthy choice. You could have just ate what you wanted in the first place and eliminated all those extra calories of food you didn't want in the first place.

If we all ate less, and had healthier choices, to have a more sustainable year-round diet,

Who should get more? Humans, wildlife, livestock, or row crops? Well it depends on population values and requirements at any given time. Priority goes towards areas with the most cultural benefit. If the population shifts and there is a change in societal demand for meat, housing, retail, or entertainment, then the land will be a reflection of that mindset switch.

In order to make a change, a lot of people, are going to have to care a whole awful lot, and indicate through trends that they want a new movement to start. It starts with where you put your money and what direction you want businesses to change towards. Resources go where the demand is. We each need to know what we want. We need goals, and we need a final outcome we are pushing towards. Regenerative agriculture is a good start, but we need to push for healthier choices for our personal self.

The world only has so many resources, and there is a reason many countries are starving, and a part of that is our overconsumption, leaving less for the rest of the world. We are a throw away society, rather than a "conservative, fair share society", it everyone for themselves, take anything you want, and we will profit off of that.

This becomes a selfish act of profitable business, and personal needs, when we could instead limit our own needs, live a healthier lifestyle, selfishly picking healthy foods first, and letting the remaining foods go to impoverished areas because we don't need them.

Food is particularly expensive due to its high turnover and the extensive work involved in bringing it to market, making waste especially problematic.

Be accepting of protein alternatives

For example, if you don't like eating a certain food, then don't eat it, don't even put it on your plate. That is another form of wasted calories.

Our throwaway mindset applies to more than just one area of life, it diffuses into all the other decisions we make.

Listen to your stomach, not your emotions. You'll know when you are actually hungry, so just be mindful, and ask yourself if you truly are hungry enough to eat a steak or a salad, and if not, you probably aren't truly hungry.

Well, the current land use balance is being criticized for not being sustainable, and we continue to take over large areas of natural habitats and are converting them into agricultural or urban areas.

As a society, the more meat we eat, the more land livestock will take up, and the more row crops will be planted to feed those animals. It all takes up land space.

right now seems to be a fairly balanced and proportionate amount of land space used for different industries, but we could reduce the amount of processed grains we eat as humans and shift more towards a healthier-whole foods based diet.

The more meat we consume, the more land livestock will require, and the more animals we eat, the more row crops will be planted to feed those animals, all of which takes up land space. Currently, land use is relatively balanced across different industries, but we could significantly reduce the amount of processed grains in our diets and shift towards healthier, whole foods. This shift would not only improve human health but also contribute to a more sustainable use of land resources.

We could also produce more food on the same amount of land, design a more aesthetic consistent product, get better at forecasting behaviors, better price marketing, better incentives, and better land utilization.

Livestock will become a rare commodity as the population reaches its cap. Not only will the urban population start to expand more into these farm fields, from our current 1% urban colonization of land up. Our homes, landfills, communities, and shopping centers will only expand and make the problem even more complex.

The US is abundant with food because this is where the opportunity to get the highest ROI exists.

For example, have you gone to the grocery store, and they were out of the item you wanted. You either go look at the next store, or check back the next day, because you won't settle for anything other than that brand item.

We as the consumer can be self aware enough to make a change in what we want based on our purchasing decisions. If we want more or less options in a particular area, we just have to start buying more in that category.

Regardless of how much the population is growing, there is still an insufficient amount of land for convenient housing and recreation. We all want privacy, personal space, and quick access to stores and downtown, yet every year we pack more homes and businesses into the suburbs decreasing the quality of life available in

These staples are transformed into a variety of products like sugar, ethanol, cornmeal, soy milk, and malt, and are integral to countless foods such as bread, pasta, sauces, and snacks, reflecting their essential role in our diets and economies.

Each part of a plant has made it into different foods we eat every day.

so all they can do is live on, deal with their problems and struggles that arise, and try to heal, moving on with the natural flow of life. Since there will always be a natural probability and sequence of events, all each plant can do is respond to its surroundings and operate as best as it can with the knowledge, capabilities, and mechanisms it currently has.

Sometimes there are still unforeseen events, too large for the organism to survive. Natural disasters, devastating events, and climate crisis, all undermine natural evolution and wipe out species one at a time, no matter how evolved they are. No matter how good they did protecting themselves. Unforeseen events still happen, and disrupt the balance of ecosystems.

The biggest event we are currently going through is the threat of global warming, and potential fresh food shortages from overpopulation. With such long unpredictable weather conditions. These trees mechanisms cannot predict spring weather, because we are starting to experience warm days, in the middle of the winter season. The fruit trees bud early and start to grow only to be shocked by another cold snap and frost. Those same buds freeze and get postponed to the next year, because they are unable to recover. Reducing overall production, and availability to low-income communities.

So as the usable quantity diminished, the price of each item will rise, limiting the affordability for the lower class to access fresh nutritious food due to the presence of developed regions willing to pay premium prices. Making food desserts even more abundant than they are today, because big business will have no incentive to send food to low-income regions simply because low income communities can't compete with the competitive market returns on investment.

This situation not only contributes to global inequalities, but also highlights the critical need for sustainable and equitable food distribution systems. The reduction of food consumption and trash waste extends beyond personal well-being, and morality, but also impacts our quality-of-life years down the road.

Our individual contribution to landfills, including food and trash waste affects more than just you. There are other families who struggle because our habits of convenience take priority over theirs.

Some people will be losing their quality of life 50 years from now because a new landfill got built right next to their property. That community associated with the landfill will face challenges with compromised air and water quality. With rippling effects creating potential health hazards, and placing a strain on natural resources, and wildlife.

Well, that same feeling is happening to a lot of other people other than you. Except, it gets worse for others. Many people don't have the access to healthy food at all, because their low income store doesn't even get stocked, while we are concerned that the store doesn't have our favorite flavor.

Not only does the dissolution of one community have repercussions, but over time, an increasing number of food deserts may emerge as economically disadvantaged nations experience resource exploitation, resulting in depleted lands and a lack of economic support. The persistent prioritization of wealthy countries over struggling communities intensifies the challenges already faced by the low income. Widening the gap between economic classes and impacting overall quality of life

Whether you believe in global warming, there is still climate change with unpredictable, inconsistent weather that can cause crops to go through a month..... Of unsustainable conditions

Each one of these resources is an industry on its own.

There are dozens of systems that feed into making sure this product gets to a customer segment called

We are contributing to more food waste than any other country in the world. The average across America for how much food is brought into this country per year is 3,548 calories/person. Which does not account for how much people wasted. That is the simple ratio of calories available across the population. With the rest of the world sitting at an average of 2,947, and Africa with an available 2,564.

We especially don't care how we affected the next town over, or whether or not we contributing to the impoverished countries, because it's not our problem. All we care about is getting what we want right now, and some else will deal with those problems later.

However, the truth is, that you are surrounded by an abundance of resources, because that is what the demand is. The market's "supply" is being distributed to meet the demands that offer the highest profit.

Stores are targeting America's "replenish mindset in the household", since society is asking for so much, then throwing away food out of pickiness. So many families don't take home leftovers from the restaurant. Most people won't eat leftovers past 4 days. So, we keep spending more and more money to restock the food that just got wasted.

Acceptable amount of waste,

Individual definition of moderation

So that means 10% of land on earth, or 2.9% of earth's surface is being used for livestock,

The EPA estimates that in 2018, 2.6 million tons of food was composted. That's only 4.1% of wasted food.

We have an economic incentive to reduce food waste. That's why we should. To save money

Promotions in supermarkets may lead to more food waste; we may buy more food that we don't necessarily need if we think we are getting more for our money.

All the world's nearly one billion hungry people could be fed on less than a quarter of the food that is wasted in the US, UK and Europe

forgot that there are leftovers ever existed because we are already chose a different meal to have

We forget what we ate yesterday, because it doesn't matter.

All we care about right now, is what we want to eat, right now.

then we will start to eat only the things we want to

Throwing away one burger wastes the same amount of water as a 90-minute shower

Food waste ends up wasting a quarter of our water supply in the form of uneaten food. That's equated to USD \$17 2billion in wasted water

Taking into account all the resources used to grow food, food waste uses up to 21% of freshwater, 19% of fertilisers, 18% of cropland, and 21% of landfill volume

To meet demand of increasing world population, food production will need to be 60 percent higher by 2050 as compared to 2005

As long as you always feel good when you get done eating, and get your variety of veggies every so often, your hormones will be fine.

Overeating stops us from enjoying the activities we will be a part of right afterwards.

You are unaffected, nothing matters, how you are perceived by others doesnt matter, and when you realize that, you wont have to manipulate the way you look. You will just naturally, do all the right things because you arent biased by trying to

blood flow increases and your heart rate is also increased so your brain is getting a flood of nutrients. Therefore you automatically feel more energetic.

The upper portion of your stomach relaxes in order to accommodate the food you've eaten. This is why your abdomen can look slightly distended after a meal

The stomach has the ability to absorb a wide range of other compounds, including glucose and other simple sugars, amino acids, and several fat-soluble chemicals

The mouth can absorb electrolytes directly into the blood

Digestive enzymes are produced in your stomach, small intestine, mouth, and pancreas. The pancreas is really the enzyme “powerhouse” of digestion. It produces the most important digestive enzymes, which are those that break down carbohydrates, proteins and fats. Proteases break down large proteins into individual short chains of amino acids called peptides. Lipases are like bile from the gallbladder, which both break down a fat molecule into three fatty acids plus a glycerol molecule. Amylases break down carbohydrates like starch into glucose. These enzymes empty into the upper part of your small intestine called the duodenum, through specific ducts from the pancreas of secreted area.

Once the enzymes break down the food small enough, they get into the wall of the small intestine through proteins imbedded in the wall of the membrane. These proteins are transmembrane pump and passive, and active transporters which allow food particles to move through the wall of the small intestine into the enterocytes. These particles are broken down small enough already that they can get through the cell and eventually end up in the

The food molecules that were broken down by enzymes in the small intestine can bump up against these enterocytes and allow a specialized protein in the wall of the cell to either use passive diffusion, or active transport to pump the particle into the cell where it can then go through the organelle like the golgi and get packaged up so it can leave the cell, end up in the bloodstream as soon as they get transported through the cell.

“all the vitamins and minerals are available, the body is in optimal conditions”, and you don’t have to absorb as much as you normally would to sustain. So now our body could decrease absorption rates, and downregulate absorption in general to take in less calories than it regularly would to regulate what is happening within the body.

The body can do this by downregulating the protein pumps and active transport proteins in the wall of the intestine.

The purpose of eating foods high in fiber, means that we are getting slower digesting foods, which means they take longer to absorb, so more food passes through, which results in feeding the bacteria in our gut.

As our body is trying to absorb all these nutrients, the food is still moving through our digestive tract, since the

fiber helps food slide through, giving nutrients a chance to reach the end of the tube in the colon where the bacteria live. The colon is where the least nutrient dense calories usually end up because your body picks up everything important that it can.

Food with more fiber, causes nutrients to be absorbed into the blood less and less, allowing more nutrients to reach the end of the intestine in the colon where the bacteria are, allowing them to get more nutrients than they used to actually eat compared to a processed food diet.

If the food composition is complex and not broken down for you, then the intestine will absorb nutrients in the chyme (semi-fluid mass of partly digested food that is expelled by a person's stomach) at different rates, depending on their nutrient complexity, and size. Foods more difficult to digest like protein and fibers slow down this absorption because they are so large, they stop food from getting absorbed into the wall because they somewhat block smaller molecules from touching it.

By the time it takes to break down and absorb all the large nutrients. The food has already made it most of the way down the tube. Now reaching a part of the tube where food particles can't pick up anymore, allowing the remaining food to get picked up by the bacteria. This is actually better for losing weight, if you want to keep eat the same amount that you do, or even more, with whole foods you will be able to and still absorb less, so if you want to lose weight then healthy food is the trick. Healthy foods also take more effort to break apart, extract from the gut, convert from a polysaccharide to a glucose molecule, finally to reach the point where we can burn it for energy. Overall, in the whole process, we end up burning more calories stored in our body just to extract the energy from food we just ate. If you are eating more food in general then you are allowing yourself to feel more satiated throughout the day, and be more satisfied after a meal, giving yourself a more enjoyable lifestyle because you can intuitively eat.

There are many functions in the body that contribute to the work to put food through a conversion process. This conversion takes large food particles and breaks them down to individual nutrients. After all of these functions take place, we finally get to the point where the food can be absorbed into the wall of the intestine. Which many pieces are missed, and aren't broken down small enough, aren't absorbed quickly enough because there was so much material, or if they aren't up against the wall, they pass through to eventually become feces.

The earth will repair itself eventually, but its not going to be in our lifetime. So, our goal is to preserve the overall quality of life for future generations to come.

If you do like to switch up your meals, and not eat chicken, broccoli, and rice everyday, you will have a better quality of life. Is not healthy

If you want something hot, salty, soft, smooth, and bland you might have a favorite healthy food “X”. Or, if you want something cold, sweet, solid, and crunchy, you might choose “Y”. Some people might choose gum, other people might choose protein, or fiber foods, and others might choose going for a walk.

If you truly believe you can't stop buying these treats then you still need to place a barrier between you and the impulse. Do not leave it in plain sight.

We all go to the fridge first, so prepare healthy options, and make them easy and appetizing.

You can't have the family sized back just sitting on the counter, where it is easy to keep taking little portions throughout the day. Also, not bringing it back with you to the couch to snack on between meals. Along with not using these treats as a fix for any emotional stressor, which can also become a problem.

Dont make your life complicated with food by trying to follow advice like...
Just enjoy life

A few examples I've heard of to help create this barrier, is to write down in a notebook: Why do you want the treat? How do you feel right now? Now after you've noticed your emotions, understand what is happening, and still believe you want to have it, then it is fine to have a little. Usually this puts you into a new mindset, and causes you to question if you truly want it or not. Another option I've heard is to put it behind a locked door. Just going through a little bit of extra effort can cause you to question if this action really leads to your long term goal. The most burdensome thing I've heard of, is to force yourself to drive to the store, just to buy a single serving, and bring it home.

Self control is marketing bullshit. Get over it, and don't fall for affirmations

Most of the time, these tricks would cause you to second guess your intention and stop you from getting any at all. However, it all comes back to self control. In my opinion, the most important part of self discipline, is if you can control what you eat and drink, along with focusing on your breathing, you can control every other aspect of your self-control.

Things like using bursts of cold shower can actually release more dopamine

Breathing through your nose

According to statistics 9% of the US population will develop an eating disorder in their lifetime. It's not anything people purposely choose, but it is something that people keep doing as they stay uninformed.

You might not have an "eating disorder", but you are showing disordered eating patterns

The hardest time to be consistent is when you are tired and hungry, usually occurring later at night when your willpower is depleting

Sleep deprivation increases appetite for sugar

Binging because we get into a mindset where we are so hungry that we feel we need to make up for everything we didn't have and you feel like you can't stop yourself. It's something that you think you can handle until you are in that situation. Nobody can resist the urge. I used to believe I was more disciplined than the people who failed at dieting before me. Sure, I may have done it, but it was a pure punishment that has taken a year to recover from.

If you do want a "snack", or something to eat outside of your scheduled pre-planned meal. Go back to your main dish, and eat until you are comfortable. So that you are full for hours, and don't need to snack between your next meal. If you can eliminate snack in between your defined meals, that can allow you to go through short fasting periods which are good for body repair and remodeling. Bringing in new tissues and replacing old ones.

Why should I wait to eat their dinner, when I could just eat something else, now

Although it would be best if we didn't snack at all throughout the day, we all know that willpower is difficult. So if you are going to "snack", I strongly believe you should just eat protein, even if you are trying to "save room" for dinner. It's better to just eat something filling now, and have a really light dinner, than to eat a bunch of chips or carbs now, and still eat a big dinner. Plus you can benefit from the protein. I personally recommend that you can't go wrong with eggs, oats, wild game (deer meat, fish, etc.), chicken, protein shakes, green veggies, potatoes, etc.

A part of the human instinct to eat together and in groups may be a similar reason to why your pet wants you there to eat with it. The reason may be because of this instinct that if someone brought food to the group, it is rude to eat it alone, because it is almost as if you are stealing it. Subconsciously it feels that way. You know you didn't buy it, you didn't work for it, so when it goes missing. You have that on your subconscious

Eating protein at every meal (and as your snacks) is the best diet plan for combined satiety and muscle growth. Throughout the whole day your bloodstream will always have protein available, so whenever your muscles are ready to initiate protein synthesis after a workout, you are prepared. You won't even have to think about a "post protein supplement", your system will already be supplied.

Therefore we assume that these aesthetic individuals must know something that we clearly don't. They know the secret to getting in shape.

There is a secret to getting in shape and staying in shape. It's called shut the fuck up and just do what you already know you're supposed to do, and have the discipline to act when you know it's the right thing to do.

Another mistake I made, by constantly looking at social media bodybuilders, is thinking that I could stay that lean forever.

When you see these bodybuilders that model themselves, it looks impressive, but they don't look like that all year long. They prepare, and go through a bulk cycle, and then cut weight and dehydrate to make the skin suck down on to the muscle. They get ready for one show, one day of pictures and then get back up to a normal weight, but we imagine them benign like that all the time and we wish we could be like that, but it is just not realistic.

The truth behind every picture you see is that everyone on social media is flexing in the pictures. Nobody looks like that unless they are flexing, and nobody can look like that 24/7 but it's nice to show off. Believe it or not, people suck their stomachs all day long to prevent it from looking lazy, unkept, and distended. It is just important to remind yourself not to be so hard on yourself because your idea of what other people look like is distorted. If you were to stay off of social media completely you might have more confidence because it changes your perspective of a healthy happy lifestyle and keeps you unsatisfied.

If you aren't making any money off of it, or competing on stage, there is no need to have visible veins in your abs. There is no quality of life down there.

When someone says you need to eat more because you are small, they don't understand that it is not about more of the food you have been eating. The intent behind the words is that you really need to eat more protein, not just more food in general. The truth is that we can't build muscle in a calorie deficit, only in a surplus, but the surplus has to have a lot of proteins available. Otherwise we just grow fat. On the other hand we can't lose fat in a calorie surplus

You only have so much mental energy, so don't spend it on social media.

Social media is especially useless for finding advice on how to improve yourself

If you lose weight to become skinny, you're going to regret that you didn't spend that time putting on more muscle.

If you are to spend all your time and energy into something that you can keep forever, then your remaining life will be a lot more meaningful. To put all your effort into being shredded will only be a temporary pleasure, just so that you can make a post that gets attention. It won't last forever. You are going to have to come up with something to do for the rest of your life. Why waste time on something you can't leave behind to your loved ones.

there are probably many people in your life that you have told to quit a bad habit like smoking or drinking. Yet, you still have bad habits yourself. So what right do you have to tell others to quit an addiction, when you can't even quit one yourself? Although smoking and drinking may have faster downside effects, eating processed food is just as unhealthy and also makes you feel worse. They are both likely to cause cancer, but one of them is just accepted.

The problem that many people face from continuing their bad habits, is allowing these bad habits to accumulate over the years, and it's never just used in moderation, it's every single day. For example, smoking doesn't cause cancer from one exposure. Smoking also doesn't immediately cause cancer, it just increases your risk for cancer.

By creating an environment where mutations are more likely to occur after cellular damage

Cancer smoking addiction eating junk food, all just as bad

Occurring as mutations start to occur after multiple uses, prolonged over time. Cancer mutations occur randomly over time due to multiple exposures and pressures to the cell. Cancer doesn't occur from one incident. Cancer occurs as from an accumulative continuous occurrence of a chronic mutation over time.

This applies to junk food too. Just once isn't going to be effective enough to harm you, but we are eating these foods all day, everyday. Giving cells multiple opportunities to alter their gene code, and strip away the important protective barriers. There are also environmental factors like the sun, chemicals, and radiation, which can also damage your DNA code, and rewrite the instruction for your body, on how to form and fold protein chains. When the proteins are formed wrong it results in harmful toxic cells. Creating proteins that lead to cancers, and other diseases, leading to an increased risk of obesity, and chronic diseases like cardiovascular disease, type 2 diabetes, non-alcoholic fatty liver disease, and some cancers.

Smoking also has other consequences like damaging the blood vessel. Which is another problem similar to what processed foods can do to your body.

If you snack or eat while you scroll on social media its almost reinforcing that this is good because you are essentially reinforcing the behavior, similar to giving your dog a treat

Secondary calories like topping and condiments
They are all fine, just use a little less

When you think about eating cooked vegetables, it's just important to get a variety, and maybe experiment with some raw vegetables. However try to be conscious of how many calories are in a serving of dipping sauce, its not healthy, and you could replace those useless calories with real food that could actually fill you up, and not just go to fat. Even though using dipping sauces may not be the healthiest, because of the extra calories, fat, and sodium, as long as you don't use your veggie as a spoon to eat the dip, then it can still be used to your advantage to get your serving of vegetables in for the day and receive those nutrients. You could also lean towards using replacement, so by switching your ranch with guacamole, or a low calorie dip, you can still receive the flavor, and get benefits from either the lower calories or additional nutrients.

Flavors - sweet, sour, salty, bitter, umami

Why do we say that tofu has no flavor, with all foods have very little flavor inherently, when's the last time you ate eggs or burger or pasta with no seasoning

Seasonings

- All purpose seasoning
- Lemon pepper
- Salt
- pepper
- spicy/buffalo
- Teriyaki
- Honey mustard
- Barbeque
- Ranch
- Cheese
- Chipotle
- Sweet
- Garlic
- Salsa
- Ketchup
- Mustard
- Relish
- You dont need the high calories dipping sauces

Eating healthy isn't hard when you find out that all the healthy foods are on the outer shelves of grocery stores.

“use food as a farmaceutical solution rather than a pharmaceutical fix”

The more healthy a food is, it almost appears that the carbs and fats are less bioavailable,

making it less efficient to add fuel to the tank. While on the contrary, foods with more bioavailability of protein, and micronutrients like vitamins and minerals are also healthy. Like putting in a bigger engine, or making it less air resistant. We want to go out and have fun, waste fuel, have more energy, eat more. Yet, we keep putting the more efficient fuel into our tank, and having less energy to burn because of the way our body feels. While we also want the high quality fuel with vitamins and minerals because it keeps the body running smooth like the fuel does in your car.

if you are to compare 500 calories of potatoes and ice cream, the ice cream is going to take up less space once it melts. While the potato keeps its size and takes up more space relative to each calorie.

The secret to long term health is getting a variety of whole foods, closest to their natural occurring form. Before it gets refined, packaged, and processed. We can't just look at food as calories, but rather look for the dense array of vitamins, minerals/electrolytes, and other nutrients found in nature, that are the instructions that tell our body to function a certain way, and adjust to your environment. Your food is the code to your biological software, and gives instructions on whether you should upgrade or downgrade your machinery. Food is simply the instructions on how you want to build your body

Strong hunger is the biggest threat to weight management.

You don't have to master intuition and know exactly when to stop eating. You just have to be imbed healthy habits into your behaviors and instinctively go to whole foods.

If food is the major contributor to every underlying disease, with a few exceptions for genetic variability, then diseases like obesity are a reflection of an underlying disease. Meaning obesity is not the problem itself, obesity is just your body's response.

Now, although willpower is a large contributor to being overweight, it's not the whole answer. We are chemically wired and manipulated by malnourishment to have uncontrollable cravings.

And that is why i think emotional eating exists

Although weight loss is a big part of confidence, safety, peace, belonging, rest, freedom, empowerment, stability, control, comfort, happiness, and self respect, there is pride in the act of trying to improve and be healthy.

Longevity is directly correlated with a positive mind

Eating healthy isn't something you have to tell anyone

There is power in keeping it to yourself

People will try to talk you out of it,

At some point in the future, maybe not in your lifetime, quality of life, in all populations will start to degrade. Whether that be from access to fresh, clean, whole foods, or lack of variety. Our health and well-being will be the first to suffer.

Taking away the long-term quality of life from where we live right now. At some point you won't have a choice to eat healthy, because it will be subdivided and processed to be more commercialized, and distributed easily. Mass crops are going to be more widely used and faster produced than fresh crops will be. So when that day comes, health will start to go downhill as our variety disappears.

Right now we pick unhealthy foods as a choice, but someday, the choice will be flipped, and people will be begging for nutrient dense foods. That's why having a sustainable solution is so important, otherwise there will be a global fight for healthy foods.

I have a feeling that the choice to eat healthy isn't going to last forever

Large scale production farming is the way of the future and it's the goal of any food chain. To become more efficient and produce more quantity

Eating is just a maintenance task that keeps us alive, it shouldn't take away from our quality of life, but there are many reasons to believe that junk food is limiting our ability to live life to the fullest.

Plant dominant

Try to avoid food in a box, bag, or can! It's just too easy to overeat these foods. They were not packaged up because they were fresh and unmanipulated.

If you were to replace your calories from added sugar and excess oil with whole foods then you would be more satisfied and be able to get full faster, and lose weight easier.

Nobody is going to be able to convince you that these foods taste bad

we overstock our homes with the same mindset as our grandparents, who overfilled their fridge in case of scarcity. It's paradoxical, that we hold onto these beliefs, yet still love convenience.

My main belief is that you don't need to go vegan, however, for longevity we should have a diet that is plant dominant, but not plant exclusive.

you don't need to go hungry to lose weight. However, you do need to eat more protein, and exercise.

Although at the end of the day, weight loss comes down to calories IN vs calories OUT. Eating healthy makes the process 10X easier, and allows you to maintain quality of life while you're losing fat.

Eating is an intuitive process, it always has been, and it always should be...

My quick summary of the topics you will encounter: the problem with processed food is how easily they are absorbed. The problem with processed foods is not that they lead to fat gain. Rather the processed food causes chronic inflammation within your body, which can damage healthy cells, tissues and organs, and may cause internal scarring, tissue death and damage to the DNA in previously healthy cells. Ultimately, this can lead to the development of potentially disabling or life-threatening illnesses, such as cancer or Type-2 diabetes. Obesity is a byproduct, high cholesterol is a byproduct, and processed food is the problem.

Our society recognizes the pharma industry as a solution. However, I disagree, and believe that to be at optimal health, we have to go on this journey on our own. We need to become informed and go against American culture norms, and stop eating fast food, and stop using pharmaceuticals to hide our symptoms. There is a new trend really catching on called holistic functional medicine, it uses food as medicine, and is proved to reverse these health conditions. You already know what healthy foods are, so I'm not going to go over what specific foods to eat.

Just to give you a summary of the reason why...

Long story short, losing weight finally comes down to calories IN vs OUT, but don't you think there is more to it than just that? The process of calories "IN" is food absorbed into the body (from the gut to the bloodstream), where that nutrient can finally be metabolized by the body, and either converted to energy, fat, or body tissue. The energy "OUT" includes all the processes in the body that require energy, which keep your basic human functions working. Although at the end of the day, weight management is determined by the number of calories we consume. It is more about how many calories we absorb compared to how much energy we burn, and then what our body does with the calories that are absorbed.

As long as these are natural whole foods, you can choose whatever food you want. Just think of your healthy

I was cutting myself short at every meal, never allowing myself to get “full”.

For example, if you keep switching foods its similar to a trick they use in eating competitions. So for hot dogs (salty, greasy, filling), it'll fill you up quickly, and you will be too full to go on, now if you eat something sweet, like a gummy bear, you can trick yourself, and can go back to the hotdogs. Another example is, if you eat a lot of ice cream (sweet, creamy) you can get discouraged, and it might start to seem bland. If you then eat a french fry, you can then go back to the ice cream, and really enjoy it again, and eat more. Since the most addictive foods are high fat, salt, and sugar foods which release a lot of dopamine when you eat them, being very easy to overeat, acting as a good stress reliever, and an easy “go to” when you are bored.

There is always room for one more bite

Your quality of life, is how you feel RIGHT NOW.

All these quotes matter to the younger version of me even though they didn't make it into the book

You have been stagnant with your eating for the past decade, and not improved in any direction. That's because its an activity with NO room for growth. Its just a maintenance task to keep us alive. The better you get at it, and the more you eat, the lower the remaining quality of life goes down, as you gain weight.

Eating is a situation where MORE does NOT equal BETTER. Its actually an activity where contentment, repetition, and monotony can actually be a beneficial solution

But some things should stay stagnant. Like the weight on the scale, we of course shouldn't encourage ourselves to make that number go up, so that why it is also good to find contentment in a couple areas of life, so that we can redistribute that TIME into more important areas where we can grow, and make healthy progress.

One area in particular i want us all to become content, and satisfied with is our eating habits. Treating food as a CONSTANT.

It's like we missed out on the opportunity to enjoy and interact with “our experience,” because we were so busy chasing after the preconceived experience we wanted to happen.

We missed out on embracing the present moment, as if we were encountering it for the first time because we were so stuck in trying to relive our favorite memories from the past, that we started to feel regret in the present moment, that its not as enjoyable as it could be.

Pretend this moment is worth it

Well from what i have heard. Im not the only one who experienced this. Most people who complete in bodybuilding competitions, sho stand on stage below 5% body fat, often experience some of these. They know not to stay in that condition for long and thats where i messed up. Anyone who tries to stay that lean for long is going to start experiencing problems.

Know the story of Each and every item you look at, touch, and interact with, it has had a whole life

In the end, no matter what method you choose, it's all about choosing whatever method makes YOU feel the least restrictive. Being something that YOU can stick to, without cheating.

You have to love your new diet more than the other sweets you crave so bad. That temptation will never go away, especially with all of these sweet treats accessible to us. It's easy to have a little here, and there, but it all adds up. The trick is not to have them easily accessible in your home, because you will crave what you commonly eat!

So therefor, I just don't believe in having desserts “in moderation”. I don't know if its possible to only have “a little”, because I personally know that if i have a dessert, I will crave it later. There are exceptions where I can have a small corner of a chocolate bar, but I have to go into eating with the mindset, that this is a “special occasion”. Like once a week max.

The problem is that if I know I cheated on a meal earlier today, I might as well cheat again. So it's never just a one-time thing. It always leads to what I call the “what the hell effect” where we have limited ourselves on a certain food, and then whenever we have one little piece of it, we feel like we might as well just have the whole thing and finish it off.

Some people will say that cheat days are OK, but I think that the idea is misunderstood. Most people interpret a cheat day as a splurge day. Giving up all their restrictions and indulging in the sweets they have been restricting all week.

We think that on our cheat day we can eat whatever we want, in unlimited amounts. Resulting in a regain of all the weight we worked to lose all week. Making the whole process miserable. So instead I think we should think of occasional cheat meals as tolerable. The difference is now the cheat meals are not planned for a specific day of the week.

Having a whole cheat day every week, is somewhat overboard, because its never just one, because the next day we are usually fighting the urge to do the same thing again. While at the same time, we never overeat healthy food on a cheat day.

It's always a splurge on junk food, which is the problem. It would be okay to overeat, and feel extra full on healthy food occasionally, but you should never purposely overeat, because we all know it happens accidentally, all throughout the week.

If you didn't keep track of the last time you overate, then it doesn't really matter. The goal is that if it happened 4 days, or 20 days ago, it wont matter because it was just healthy food.

Its like shopping online, we cant spend \$200 profusely every week, because that could become a problem overtime. Its okay to spend that \$200 occasionally if you really need it, but impulse purchases add up over time. If this month that splurge happened once a week for a whole month, that's not your fault, but try to get back on track.

Nevertheless, don't say that you're going to spend \$150 just for fun EVERY week, or that you're going to have a cheat meal EVERY week, because there's going to be an extra day every once in a while, where you're going to say "I really need this, and one more won't hurt". Then you've had two cheat days in a week, and now you're going a little overboard, where you're going to start to see the consequences and not be able to recover from those as quickly.

So I personally think that eating food "in moderation" is understood incorrectly. We interpret "in moderation", as once a day or a little with every meal, but once a week needs to be your new definition of "in moderation". So that if it happens slightly more often, you'll still be in the safe zone.

Moderation should only be a reference to whole foods, as in, don't make your entire meal one food group, because you need variety in your nutrients, but it should have never originally been intended to give permission for desserts.

We are easily convinced and persuaded by logical and reasonable arguments. So anytime our emotional mind wants a dessert, we indulge. We are vulnerable with weaknesses, and susceptibilities, and easily convinced, so you have to be disciplined, dedicated, and committed to a plan that helps us resist those temptations.

So there is clearly a connection between past experiences to your self beliefs, values, and confidence, but you are not helping yourself by neglecting health and nutrition. Nothing will get solved until that problem is fixed first.

At the end of the day, it doesn't matter if the carb/fat ratio is, as long as you have an equal balance.

Once you have prepared the food on your plate, you know this is enough, and this should satisfy you, then you can go and sit down with your food, and eat at whatever pace you want.

Once you have eaten all of your protein, and start working on the rest of your plate, you will become satisfied quicker, and once you become full, you know you can stop.

You got your most important food group out of the way. By the time you are finished with the food and satiated, whether you ate it all quickly or snacked on it for the next 30 minutes. You will be fulfilled, and can mindfully acknowledge to yourself that you got your essential nutrients, and will easily be able to manage your hunger until the next meal.
malnourishment amplifies and enhance hunger and appetite

Everytime we overeat, we get upset with ourselves,
Yet We associate food with making us feel better

Im not telling you to completely eliminate all sweets, and desserts, but limit them, a lot. I still have cheat meals every once in a while, but its very random. Sometimes, once a week, sometimes twice a day, but its never planned, and never on purpose

Although I HATE this cycle, I find myself continually falling into the trap everytime i overeat.

And i think the whole negative mindset comes back to junk food because its like we have bursts of motivation and then we keep going back to negativity and i think its an association with processed carbs and the memories they subconsciously bring back to the mind that not only make us overeat, but they give us a feeling of insecurity

Our society is living a low mental quality of life, because we as a group have poor self discipline. Which puts us in a mindset where we think we should give ourselves room to fall free into our impulses day after day with no goal in mind.

Societal confidence and depression issues seem to start with each one of our relationships with food

There isn't a plan that will work for everyone because there is [no diet that is optimized to the "human body"](#) .

However, there are common foods and plans that can be generalized across the population.

Health in general is about allowing the small things that matter to build up over time, allowing 1% improvements to compound on one another to the point where you are in completely new and better condition relative to where you started.

if you aren't eating whole foods then you are wasting your time with everything else, the supplements and special at home equipment, are not giving you any benefit that whole foods couldn't, there are a few exceptions, but this is basically the only flaw with trying to avoid the real work. So any time there is an advertisement that is a quick hack to lose weight, it's a marketing scheme, it really isn't going to provide you the results you want. Any quick fix has side effects and problems

You don't want to be considered a "healthy eater" because of the stigma that leads to people believing you are either vegan and that you are going to challenge or criticize their personal morals, customs, or traditions.

Try to take a few days to use yourself as a science experiment. Write down the foods you ate and how you felt after that meal, after an hour from finishing eating, and after 4 hours. Even after eating everyday, our entire life, many of us still don't know how certain food makes us feel and how our body reacts to certain food. Many of us still don't know how to listen to our body, and the simple solution to that is having the discipline to actually take time to learn. Have you ever thought about what arrangement of foods gives you the most energy? What meals led you to feel sluggish? What about the foods that made you fill up faster than others? So many of us still struggle with our weight and we still are looking for that simple solution to fix it.

We spend our whole life learning moderation with food, and how to manage our weight and health comfortably. Its about time you make yourself a science project, test different food combinations, and understand how that made you feel afterwards. You will learn over time that what you eat is directly correlated to your energy levels, which is going to impact your motivation, and will in turn have an impact on your productivity, which is related to your personality and confidence.

So what are you missing? Have you really tried every "diet"?

Do you keep restricting calories

Are you trying to eat 100% healthy, or are you giving yourself lots of wiggle room

Reliable

Check your references

Check your assumptions

We've all heard different advice over and over, but what should we believe?

Sometimes its just better trying to live a life on your own without trying to get information from others, or believe information online because its just so unpredictable

sometimes it is better to follow the life advice of others who have actually gone through it, and share their story based on regret, rather than trying to figure it out for yourself.

To anyone who wants to be skinny and shredded, evolutionary the strongest and most powerful always win in any competition. Being shredded is not worth it, and it won't last forever, so why try to achieve that momentary status at all. Just stick to being healthy, happy, and energetic.

You can have a lot more quality in life by focusing on strength instead of trying to get shredded. The best quality of life will be when you are able to just get a shadow of all your abs but hold back a little bit from getting to a shredded look. There is still hard work to get near 10%, but you are not pushing yourself to the body's absolute limits.

The truth is that you create taste preferences for what you habitually eat, and that's why you like sweets so much. Your taste preferences also change and mature over time. Individually, each of our taste buds goes through a cycle of birth, death, and rebirth that lasts about two weeks. So that means in two weeks you could completely change your preferences. A healthy tongue will replace and regrow these taste buds constantly. Then, once you hit middle age, the buds continue to die and be shed, but a smaller number regenerate as the years go on, so your taste is not as sensitive as it used to be. Giving adults the opportunity to find joy in the flavor of foods they didn't like as kids either.

You're not going to want to listen if you're forced,

You'll choose to do what you're allowed to do

All i know is that once you start adding in healthy foods, you'll start to crave it,

The old adage says it takes about 21 days to form a habit, but research shows you may need as long as 10 weeks.

Stop trying to find ways to make others proud of you

Go struggle and come back telling me that you still want to place all these rules and expectations from what perfect is going to be like to you?

You're going to hit a stage where you say, i dont need all those things, i just need the simplicity in being happy, healthy, and active.

Give your ego a real goal to chase and stop chasing after these petty dreams

- We as people dont talk about our pains and struggles, the reason is because we dont want to, because it doesn't make us feel good about ourselves. Its a simple as that, so we would rather talk about anything else.

Its supposed to be an adjustment of rewards and cravings, not an immediate hard switch, just give it a try, and try to implement new strategies once a week.

Someone has to tell you what quality of life is so you can determine if you are struggling or not

Your past should really just act as a foundational reference point for us to grow from, and compare our progress to.

Teach others that the goal is to allow moral intuition to take over

Struggling teaches you to stop trying so hard, and to live a simple life.

Whatever you are chasing that is not what you have is not worth chasing, you need to stop trying to find something else.

The problem is once we start and build a routine, our mindset shifts and we start to believe that we could/should maintain this behavior forever. Be in the mindset of adapting to every situation instead

We would instead assume that you would maintain a healthy weight for a long period of time, and stay active.

did i really want to be skinny? Or did I want the attention and confidence that I thought would come from being shredded?

What if your weight loss was all a waste of time because you still didn't have the confidence to go talk to strangers?

You became shredded but still have little confidence, would it have been worth the time you wasted?

Confidence is verbal communication, its about thought generation, the way you look only affects your own ability to do that, not others.

Nobody wonders why you didn't finish your food. Nobody wanted you to make a different meal. Nobody wanted you to say or do anything different, because everything you did appeared normal.

Being thin does not guarantee a better quality of life, it oftentimes comes with a struggle of having to eat less

Dont be the friend that insists on healthy eating choices.

Dopamine is the precursor to epinephrine (adrenaline), it puts us into action

Unexpected

You motivate yourself to do things you do everyday, it's no one else's responsibility except for what you tell yourself and come up with reasons for.

The only struggle i ever experiences was the one i created myself with the beliefs i was trying to prove in my own head

Calories are nowhere in this format because calories should have nothing to do with what you choose to eat. Just make it simple, and pick what you want stress-free. If I have learned

anything, it's that you can't isolate your meals and avoid sweets.

The effect food has on appetite is just too unpredictable. For some reason, your internal state of nutrition is hard to keep track of, and this makes it easy to experience imbalances. So the only way we can maintain a stable appetite is to stay risk-averse with the food we eat. That means mindfully eating a variety of foods at all points of time throughout the day.

over any period of time.

So to be risk-averse, you have to be balanced. Appetite is ever-fluctuating, so the only way to be prepared is to

Ingredients should not be questionable, the debate should be over what meal we prepare. That's where recipe books come in handy!

Calories are always the main priority, but

positive reminders are usually enough to get you back on track.

It's no big deal if you take a couple weeks off, and eat extra sweets for a while, or if you stick to your favorite foods for a period of time, but don't make it a lifelong habit. You don't need to be perfect with your diet to get the health benefits that you want. Just do better than you're doing right now. That's all I will ever say over and over and over.

The best case scenario is you try it, enjoy it, and see yourself as a healthier version of yourself. It's just self-pride. Another goal to set, mission to go on, and idea to identify with. Whether or not it's useful knowledge or not, its conformational, in your attempt for closure. The goal of learning is to build up enough information to move on, and forget about the need to learn anymore.

Otherwise, you'll end up like me, and get stuck on the fact that one might be better than the other, without knowing the reason why. Over time, you start to accept that the small differences don't actually justify exclusivity, because there is nothing in this world that you have to have everyday, and there is nothing that you couldn't live without.

Mindful eating is not about discipline. You don't have to enforce strict rules. Food is simply a requirement for the body, but you don't have to follow any rules. To be fully transparent, it doesn't matter what you eat, because as long as you ARE, you'll keep living.

You don't have to eat 3 meals a day, or even today at all. You can eat 10 times a day, and still be fine. It could even be the same thing over and over again. None of that would matter, if you could make it work. The problem is finding balance without a structured routine.

Common foods have been created for societal use, but were chosen because of the infrastructure that makes food accessible to us. Food has become a lost art, because of the abandonment of cultural traditions. In centuries prior, meals were structured around family gatherings, but society has matured and nurtured individual convenience that teaches people to prioritize eating when they're hungry.

This mindset shift has led to the uprise in grocery stores, and fast food, as a new found mechanism to encourage eating with no social interaction. This perspective shift has taken spiritual, religious, sacrificial, and observational daily practice, and simplified it into an automated eating process.

Food now has less of a cultural relevance, disconnecting it from the previous connotation it had as a tool to induce meditative mindstate. It is now harder to distract ourselves during times of hunger, because we are used to just doing everything independently. Waiting on others would only seem to be a waste of time.

Yet, it's this habit of rushing through our routine that prevents us from being energy-efficient with our time. Mental willpower is a quickly diminishing resource, and it makes small everyday tasks harder when you don't have it. Taking time to recollect your thoughts, and reconnect with others, is what recharges this area of the mind.

These acts of sharing thought in proximity require a sense of spirituality and self-awareness

because behavior cannot exist without a connection to the intrinsic values.

Consequently, when we skip these shared mealtime experiences, we miss vital opportunities for emotional and social replenishment.

People will recommend tips and tricks to you on how to eat healthier and be more productive but in reality it is as simple as getting back to the basics of positive self-affirmation,

Your hunger signals are never too strong to ignore, it's all about the mindset you are in and how much stimulation you think you need to get out of the current mindset you're in right now

Your goals are the only thing that are holding you back

- Whether or not it's perfection in strict whole foods eating
- Or perfection in the attempt to lose weight and look aesthetic
- Or the idea of knowing how to manipulate the food you eat to control your energy levels at all points in time
- Your mindset on achieving this is the only reason you're not able to accomplish it long term because you keep creating rules that are getting in your own way
- Food is food, there is nothing else to it
- Science says there are calories, but you have no idea what that means
- Prove to me that you can quantify it, and how this number translates to the way you think and feel... I can't
-

Because a relationship cannot exist without

Respect for self and others

Recollect

e way we frame productivity in our routine.

we are choosing to do anything but wait on others

so that we can take the time to reconnect with others.

Mandatory social interactions become more easily avoidable as preferences for goa

act of goal setting and

freedom continues.

personal beliefs.

when we feel uncertain

and uncertain of where to find time to

Food used to have a connotation

As a result, food has lost its significance in social spirituality.

Cultural relevance

This shift has altered the way food induces

as it has become a more automated feeding process, pulling it's

personal spirituality,

as it increasingly becomes an automated feeding process.

Food has lost its significance in social interactions, as it has shifted towards automated feeding rather than a fundamentally religious observation that implies sacrifice, spirituality, and undivided attention

engages attention into observational unity.

spiritual religious sacrifice

Mandatory social connections

Mandatory

Cultural framing of the way food is placed in front of us

Grocery stores are a new found mechanism

its original traditional

but it's the ideology that society has nurtured.

shifted towards

behind the way our society has culturally framed eating meals consistently,

Although there are common foods

Temporary fix

A meal is a placeholder

So the biggest hurdle to being healthy is our

From what I've learned, conscious understandings are flawed

From what I've noticed, the body really isn't that efficient.
There is a lot of waste and miscalculations.

guarantee

The human mind finalizes thought in the moment of clarification. So until you feel you reach that point, you will continue to search. It feels excessive when you're uncertain of the truth. Sometimes there is just so much misinformation that clarification seems out of the picture. Feedback from the cells and how they work oftentimes seems to be the only reason answer.

Hoping to eventually

Knowledge is

The best case scenario

The best case scenario

there is no end. Life is a constantly evolving experience that we just simply have to deal with every single FUCKING day.

Our body may seem complex, but it reacts just the way you think it might. So don't overcomplicate it, by thinking you have to do something that you don't already know how to do

Do you really need to know what your body does with calories?? Is it that big of a deal?

At the end of every meal, you're full. No matter what you eat or what you were craving at the beginning, so you might as well eat something healthy for yourself

The limitation we reach is the predesigned compartmentalization of the body

It can organize incoming signals into predesigned destinations, in which we can only

we know that healthy foods like vegetables are full of fiber, but what does fiber really do for us?

Proteins and fats can also take up space to make sure sugar get absorbed even less.

common form of energy we can

human closest common

molecule we have as a

This helps to prevent spikes in glucose levels after eating.

Fibers hold onto sugar, and don't allow the sugars to freely float around in the intestine and get easily picked up and put into the bloodstream. Fibers make the lining in the gut, get an extra film (lattice network) over it, so sugars like glucose and fructose get absorbed at slower rates because there is another layer they have to go through. Fiber also moves food through the tube faster, which also helps with generating a satiety signal. There is a myth that fruits and vegetables lose their fiber qualities and benefits when they go through the freeze/thaw cycle, or when blended, but this isn't true. The fiber still keeps its advantages and isn't negatively affected. When you freeze fruits and vegetables you actually are freezing the water in the plant cells. When the water freezes, it expands and the ice crystals cause the cell walls to rupture. So the texture of thawed produce is much softer than when it was raw. However, some nutrients begin to break down when frozen produce is stored for more than a year.

The sugar for example would be small enough to get absorbed right away, however, when there is a fiber molecule attached to the sugar molecule, then it is less accessible. Usually, blood sugar starts to rise 10-15 minutes after a meal and reaches its peak after an hour. However, high fiber causes this time period to extend over a longer period of time. Since our body isn't super efficient at absorbing everything, healthier food has fewer individual molecules similar to sugar being absorbed from it, coming into the lumen of our gut (intestine), so it all gets absorbed into the blood slower which takes more time.

Did you know that the amount of calories and sugar your body absorbs is different based on the amount of processing the food goes through? When the food is going through the digestion process, the nutrients are being absorbed throughout the whole gastrointestinal tract, throughout the whole day, while our body's process of burning calories is also happening simultaneously. So throughout the whole digestive tract, the intestine is trying to absorb as much nutrients as it can, and if you were to think about how the more refined the food is easier to absorb, then you can imagine being able to absorb more calories in general, while also absorbing more sugar because there aren't any fiber within the processed food to prevent it from being absorbed. Which in turn, makes it easier to gain weight, which is a problem most of us struggle with.

And there are a lot of convenient apps to help you keep track of this

Most of us who have counted calories in the past or still currently do, initially

forcing you to consider how many calories you have left for the day before you hit your limit.

in my opinion, if you really want to

also Idk how enjoyable counting calories are to you

without the over

Each calorie burn is like a fire within your body on a microscopic level, and you need oxygen to do that, and there is CO₂ that leaves the body because of it and that is the byproduct of fat loss

Approximately 16% of the fat you lose is released from your body through liquids. It can be in the form of urine and sweat.

The triglycerides release fat as carbon dioxide and water atoms during fat metabolism or oxidation. In other words, fat leaves the body as carbon dioxide when you exhale. The fat which becomes water mixes into your circulation until it's lost as urine, tears, sweat and other bodily fluids.

There are many systems and conversion processes to account for in the digestion processes, needs in the body including everything in the Gastrointestinal tract, from churning of the food in the stomach, the peristalsis (movement) of food down the tubes, and energy release in the production of enzymes to break down the food further in the stomach and intestinal tract.

Then if you're like me, and you want to lose weight extra fast, you overestimate the calorie content by a little bit, just in case you come close to your calorie limit for the day, you can safely say, you left some "room for error", but then feel guilty because you went back for a snack because you know you "left some room for error", and now you're second guessing by how much, and feeling guilty for overeating.

Another false assumption you can have is believing that all calories recorded are actually absorbed.

Well, our body is not a bomb calorimeter, and our body cannot extract energy as efficiently as

this is dangerous when you are still hungry and want a snack, because you assume there was "room for error", but afterwards,

couple, just to make sure you cover your bases in case you mi

A calorie is a measurement similar to a joule of energy. Each "Calorie" on the label is not the same as a "Calorie" used in your body. Our body is not efficient enough to extract all the energy from food as efficiently as a bomb calorimeter. There are so many variables that come into play when it comes to how our body deals with food, and no two foods are processed the same in the body.

Our body absorbs each nutrient with different mechanisms and some don't get absorbed at all. For example proteins take more energy in digestion and conversion than any other nutrient.

bomb calorimeter, which is just a measure of how much potential energy the food gives off if you were to light fire to them, in a “bomb calorimeter”, measuring how much heat they can scientifically give off. Your body does this type of thing on a microscopic level but not very efficiently. Our body’s cannot extract every calorie of energy from food like you might originally think.

This over-assumption on how much value a quantifiable calorie can have on your decision making is what distracts so many proclaimed “healthy” people from making healthy choices! The mistake I’ve seen in others and made myself, is believing that low calorie foods are the solution. So we make veggies the core ingredient to our meals.

Although this is clearly going to cause weight loss, and make you think you’re healthy, there is NOT a corresponding biological pathway that guarantees long-term fat elimination.

the reputation and mindset is

. Switching from traditional recipes, to veggie based meals.
Although

The change most people make is adding in lots and lots of low calorie foods.

I only make that statement because I once considered myself a weight loss expert, while my ideas were unsustainable.

You cant trick your body into feeling full by eating less

being a self proclaimed

The personal choices I made cause imbalances and deficiencies.

And after further self experimentation, i learned that my assumptions were more like misunderstandings of the scientific research.

an extreme example of what can happen when you truly believe that calories are the answer to all of your problems.

This practice of planning, analyzing, and manipulating voluntary behaviors will make you miserable because your mind gets focused on the details that didn't matter in the past.

You don't want to make these simple life choices any more complicated than they have to be. Although, restricting may have fast results, it quickly becomes a problem when you intentionally eliminate something from your diet when you know you actually want it.

This behavior turns calories into something that becomes worth too much to you, for you to allow anything to distract you from remembering exactly how close you are to your limit at any part of the day. This happens because your mind obsesses over food, and is constantly looking for opportunities to have more again.

This causes the cravings to get worse and worse as the day goes on because you keep refusing to give your mind what it considers to be "the most important goal". Relief from pain is the number one priority in this moment, and you can't ignore the most attention-grabbing detail, because the brain is designed to focus on potential threats.

So it's no surprise that we seek comfort as our first response. When we see a threat, our goal is to escape from BEING the target. Except this scenario is a problem being caused by our belief system, and the conflict is that we want to enjoy pleasurable activities, but we keep getting advice not to.

Yet, in order to change this behavior, we would have to redefine our goals, and modify our entire routine around FOOD. This perceived idea of CHANGE is our fear, but this negative speculation is only overwhelming because you have an unrealistic expectation of how challenging it's going to be.

This anticipation is intimidating only because you're hoping and wishing your thoughts will talk you out of it! Truthfully, you're pre-manifesting the results before you even try! This mindset of self-sabotage, is your problem, and you are allowing it to invade your personal goals!

Those thoughts don't have to exist, yet you keep accepting that "it's okay if they happen", as if it's okay because it happens to everyone. Well... fuck that!!! Choose not to be like everyone else then, because they don't understand WHY they should live the quality of life that you are choosing.

So you're going to have to be the ONE that shows them how to do it. If they want to join, then that's good, but you can't let them convince you that theirs is better. Although you can't help everyone change, you can teach others the benefits of living a healthier lifestyle by always choosing to uphold your beliefs because you know it helps you live a better quality of life.

This practice of actively choosing to be healthy and productive, has a positive effect on others that you can motivate and inspire through a commitment to your own choices. Watching that ripple effect of positive improvement spread through your peers is an easy way to improve your confidence because your impact proves that YOU can make a change.

Self-improvement does not go unseen by others. So be the positive peer pressure that encourages confidence in others, because that mindset you insist others to follow will echo in your mind and influence your behaviors to reflect what you say is the right thing to do!

So just by helping others pursue healthy goals, you will indirectly be inspired to brainstorm new ideas to help them! That creative process requires practical advice only understandable from practice. So you can create accountability because as soon as you start to motivate others, you'll feel obligated to maintain the standards that you set.

This commitment requires truth, honesty, integrity, and authenticity, but you have to have a passion for a CHANGEABLE CAUSE in human behavior in order for you to express your relevant experiences that others would find valuable.

The level of importance behind any goal is determined by how it effects life afterwards, but how can you determine what goal is worth pursuing? What factors make this specific WANT more valuable than all others WANTS??

Well it's the conditions in which they exist in, because every choice you make is justified by the pre-imagined scenario that best aligned with what you thought you wanted. This bias in reasoning is once again causing a self fulfilling prophecy that can only be interrupted by changing your daily habits!

This means that if you want to change, then you have to WANT to do better in every area of life!!! It's a complete shift in perspective between right and wrong, and that is an act to pursue your highest moral beliefs by creating barriers that your thoughts CANNOT wonder out of!!!

The mind needs boundaries to exist in, that's how we keep it satisfied and content! We can mindfully do that by choosing mental environments that offer a limited access to choices that you find desirable.

So although it's important for others to allow you freedom of choice, YOU can't give yourself that freedom, because if you allow room for laziness, then you'll be more likely to slack off, simply because the option is available.

The key to this discipline is habit creation, which requires a personal commitment that engulfs ALL free-thought! This goal has to stimulate creativity in the mind, and provoke excitement in the belief that you can improve your personality.

There is a topic in each of our minds that motivates us more than anything else. Talking about this with others ignites passion within your self-awareness to get active, but what you don't realize is that your unconscious understanding is now getting steered towards healthy thoughts based upon the mental domain in which future actions are decided...

It's all reflective of your most recent thoughts, and viewpoints. These beliefs, and imagined scenarios carry momentum within their intention. YOU are the intentions behind that momentary situation, and its those perceived ideas that determine your ability to break the current patterns and re-categorize your mindset into a desired circumstance.

This re-location of thought takes discipline, willpower, and energy, but thoughts exist departmentally within the mind. So although it seems like natural thoughts are randomly shifting and bouncing around, they are actually diffusing systematically.

Thoughts follow patterns just like every other behavior in nature. Common themes of needs, wants, desires, fears, and insecurities exist within the mind of every unique individual!

These affect the decision making process in every situation this person encounters! Which means that your determination to get these things that you hope for, will consequently determine how hard it is to overcome mental challenges.

Fears like confusion, anxiety, depression, doubt, fatigue, discomfort, disappointment, inadequacies, and insecurities don't need to be ignored or avoided... They just need to be "not thought about".

Of course you'll say it's not that easy, but the act of coming up with that excuse is the exact mindset that causes these negative feelings to occur.

By trying to refute, debate, and defend your thoughts, you only allow room for these thoughts to exist! So let go of your need to disagree, and just accept the statement. The act of believing it brings you closer to achieving your goals than being self-righteous ever will.

We are all looking for that same validation, but its not worth it! Reassurance does not equate to a positive quality of life, but an internal-commitment to accountability is.

So you have to make progress towards something you perceive as growth, and accept that "work" is the only thing that can help you feel productive.

That mentality is equivalent to meaningful effort because Motivation is the most

Relieving stress

Reliable

Relevant

Indicator

Signal

This positive belief involves a repetitive behavior, except it involves a benefit, that gradually shifts your perspective and attitude

motivation does.

Making progress towards a project, is the only time you should worry about productivity. So unless what you are talking about is directly correlated to the project you are working on, then just enjoy life.

You don't need to keep spending time trying trying to maximize your time. Just keep doing what you know you should be doing and don't worry about anything else because the only thing that is actually wasting your time is the act of questioning your efforts and we call this overthinking!

I am the biggest culprit of this problem because I try so hard to make sure I'm on the most efficient path and I spend hours a day/week making sure I exhaust the pros/cons of all other options. Double-triple checking this is what I want to be doing.

I never allow myself to just keep going and move forward with what I've accomplished so far, and I'm starting to realize that the only times I'm ever stagnant or feeling stuck, are the moments when I refuse to accept my situation and when I resist the fact that my life would be simpler and more enjoyable if I would just admit that I'm satisfied with the projects and hobbies and past times that I've come up with this far.

In the moments that I resort back to these activities, I notice how happy I am! Simply satisfied with the current conversations, routines, goals, and problems.

It's these new found priorities I can take initiative on that allow me to trust my instincts, and allow me to have fun with my day to day responsibilities. These activities not only get me excited in my free time but they also change my perspective on what to do with it!

I've learned that free time has no boundaries, and if we choose maintenance activities, then there is no perspective progress being made, but if you choose to explore areas of the mind, by committing to the “trying phase”, then you'll learn how easy it is to enjoy life.

The rule to the game of freedom, is you can have no tracking, no goal to get better, no aim, and no focus. Just playful participation with an acceptance that better things will come in the future.

Time now is simple. It's the chance to stay busy because you want to. Freedom exists in the opportunity to choose, but the trap humans experience is the chance to pick between 2.

This internal quandary is a self fulfilling dilemma that lowers your quality of life because you're experiencing characteristics/ associated with a lack of commitment.

The phenomenon is a paradox of disagreement in yourself, causing you to decipher if what you are doing is the right thing. That question of “is it...?” stops all dopamine from happening. Setting the mood, atmosphere, and conversational tone to negative rather than positive.

This applies to social interactions and internal dialogue, both affecting your self perception, and because every situation you see yourself in has an outcome, and we have an internal theater to pre-imagine upcoming events. There is a high probability that you will make an assumption about the direction you think you're going to end up

This pre-ideologized situation is a reflection of your personal values, and holds insight to either the reputation you are afraid of having (negative), and the experience that you're excited to be a part of (positive)!

Your self perception is very closely signed with the reputation you hope you HAVE within your relationships, but that “HAVE”, is in the past. There is a part of the mind designed to expect what scenarios you might experience in the future.

These!!! Are what you either choose to control or let happen to you.

. So if you choose to let pessimism, realism, likely-practice, t

Then you're likely to fall into the trap of feeling unlucky, guilty, jealous, and inadequate.

Yet none of these are associated with anything positive so how are you going to have a fun upbeat playful engaging theoretical hypothetical speculative conversation if you have those ideas in your mind??

The secret to enjoying life is just

chasing after the moments where i can do more of what i enjoy

find myself the happiest and most satisfied, and i think it's the chase after these moments and realizations that keeps me the most optimistic, positive and happy!

As if in that mindset i'm confidently distracted from boredom! Which allows me to avoid the need to search for dopamine because i'm already riding a mental state of bliss!

So once I recognize that i can make the choice to stay stimulated by my goals, then i can be happier than food ever will ever make me, i avoid the temptation!

offers the reward of feeling productive and motivated

refute the statement, is the exact same mindset

Each one of these thoughts only exists out of boredom. Which are moments of perceived hesitation and

They are emotions that are self created in the moment of hesitation.

distract you from the work you

be an excuse to hesitate when you don't want to do the work anymore.

when you're trying to hesitate

Good thoughts don't need interruption

But bad thoughts need dismissal
And they only exist out of boredom

Boredom is a self perceived problem

Nobody else knows its happening but you yet you keep perpetuating negativity

Although natural thoughts diffuse, shift, and bounce around within their subcategories,

, the overused/underappreciated tool of self-awareness can be pre-designed to clarify goals in times of uncertainty.

prepared in a way that brings you back to your favorite topics.

Inertia is the “difficult” barrier, we struggle to

The hard part is breaking this

Inertia is the ability to adjust and change what is being thought about. THIS is the hard part.

how future actions are decided...

Which are from your most recent

most recent “previous interaction” and

Momentum exists within the mind.

Inertia is the hard part,

which establishes healthy thoughts associated with practical outcomes that we expect to be positive based on our

expect to occur based on previous

mental environment that offers opportunities to learn and improve.

inspires learning,

The belief in this thought, pre-sets a perspective, that stimulates a mental environment, where you

FUN, playful, goofy exaggeration,

has to connect your passion for a topic to a physical activity that keeps you busy.

Giving you a physical outlet to learn about the real-world application of what you like learning about. This commitment to a specific interest allows you to get to know something other than yourself.

This ADDS to your life and knowledge so it's considered to be productive.

This deep interest in learning allows you to

Which means we get a healthy addiction once we find a passion for a unique topic! That deep interest towards learning gives us something to look forward to in our past-time.

So rather than feeling bored anytime you have a gap in your schedule.

You can think of ways to initiate fun conversations and activities that keep you active and engaged when you

This past-time gives you something to look forward to, rather than feeling bored anytime you have a gap in your schedule. Yet, rather than having a plan for our 15 minute breaks, we relax. Hoping that we will be put in a better position later.

Well the trick to motivation, time management, and productivity is preparation, because the limiting factor to making progress is having access to the tools you need to work on your project.

Time is not the problem, having access to a computer, tablet, or phone is not the problem, but coming up with a creative idea on how to create something new/innovative/unprecedented, is the problem. Having the ability to innovate inside the imagination and bring the idea to the outside world is the skill we all struggle with.

This dedication to find the time to do something you enjoy, is what allows you to live a fulfilled life, full of stories, and it's this perspective IN life that allows you stay positive and optimistic for upcoming adventures and conversations.

allows you to discover new ways to stay busy when you're wanting to snack out of boredom.

The problem many of us have is asking the forbidden question of “am i happy right now?”

The repetition is hard to deal with!

Its that same mindset that makes you get on your phone and the same when you get up to look for something else to do.

Eating just happens to be something by rise you can do

I've learned that with working a full time physical labor job, staying active and being involved, there isn't enough time to eat all day. You have so many other obligations, you can't overeat and be productive, so you learn your lesson and learn not to eat so much. You have to stop eating at a point where you can still physically apply yourself and not be miserable. So because you can get enough food in during the day, you will lose weight no matter what food you eat. So a lot of people who are lucky enough to do physical labor will use the argument to obese people that at the end of the day, it really doesn't matter what you eat, but more about how much you eat. However, this isn't the case for the majority of people who don't work in physical labor, and get to snack all day. So how do they become healthy? What is the solution for them? This idea of using physical labor does have an impact on obesity and overall health, but doesn't solve the problem of heart disease, and diabetes. Continuing to exercise everyday does allow you to keep up physical health, which is a major contributor to longevity, but it's not the only solution. Some of the best advice given by the oldest living humans was to do hard work on a regular basis.

When the insulin is very low, that can cause hunger. When there isn't enough insulin present to actually make use of and transport that glucose to your brain and other cells throughout the body, **your brain cues its signal for hunger**. Also, when your insulin is spiked at the top, that causes hunger signals. Causing you to snack even more throughout the day because your insulin keeps getting pushed up to the top of the range. So, when you snack all day, and the insulin stays high, the physiologic effect of insulin itself on the brain is to increase satiety. So if you only eat processed foods that are just offering glucose, and all we do is spike insulin without the micronutrients that truly satisfy hunger and give you a feeling of satiety. So as we snack all day, we get hungry as insulin spikes, then we get tired after insulin drops, so we feel like we need to eat again, and end up eating all day.

If we keep blood glucose levels stable, this will allow you to feel better throughout the day, without having the dips and spikes of energy. I know it's difficult to understand that the body can get low energy when we have all this stored fat, but if you think about how your immediate energy is related to the current gradient level of glucose in the blood, it might help you understand it better. So, depending on which phase of immediate glucose absorption or release back into your blood. Your perceived energy will change, based on how dramatic the shift is from peak blood sugar spike back down to base level. So if there is a large spike, you will get a short burst of energy, but it is absorbed quickly into the cells, because insulin is released along with this sugar. Then as your blood sugar levels fall, that's when fatigue and tiredness set in.

If calories come in slowly, then it doesn't go straight to fat, because there are muscles asking for energy right now that can utilize that glucose. If the sugar has less of an impact on your digestion/metabolizing organs (like the pancreas, gallbladder, liver), they can function properly, without being overwhelmed. Once everything is under control, other nutrients like vitamins and minerals coming in can have an opportunity to support your metabolism, increase energy production, and work on healing and repairing other areas. However, if all the nutrients come in right away, the body just has to send it all to fat, and deal with it later.

You should not feel sluggish, because that happens when you have eaten too much carbohydrates.

When you have a spike of blood sugar, and it drops below baseline, it increases your appetite because you're hypoglycemic relative to your baseline glucose

Don't spend your life thinking about food. Eat something to fill you up, then move on.

Why is sugar and junk food bad? Eating these processed foods on a regular basis is like eating dessert at every meal, they are packed with sugar, light up your dopamine receptors, and make you crave even more sugar. Junk food does not contain micronutrients that are required by our body.

avoid boredom,

Yet, its this ability to design in uncertainty, and that solves all of our confidence issues,

Yet, we claim not to have time, even though

But imagine being creative enough to work towards your goals on your computer, tablet, or phone??

use your

a computer, tablet, phone, book or projects is

All you have to do is have creative ideas on how to
anywhere you go.

Access

Motivation is a mindset that exists, because you can grasp it in any instance.

comes in handy any time we need a stress reliever. So instead of relying on food for
pleasure, we can depend on our goals as an

Except, this mindset forces you to

its more like a hobby you look forward to rather than an escape from boredom.

One big reason we go to food, is to fill the gap in time between activities

Allowing you to connect

That gives you “something” to look forward to, because you can consistently make
progress towards a specific

and be proud of! Which

would considered be a productive goal to focus on.

Involvement

Commitment

Distraction

way you can have something to look forward to,

rippling passion that inspires you to consider how

Autocatalysis is extreme expression of kinetic control, and is very energy expensive, and is unsustainable, however, if it did happen where a molecule was able to replicate quickly with the assistance of an enzyme, while at the same time making more enzymes as it went along, then it would only take .000079 seconds to make a "mole" (visible quantity) which then would allow for abundant life on earth to start propagating

The lipid membrane being mosaic and constantly turning over and tossing up new receptors every second, and it's like a wave and random opportunity of tolerance meaning how many are thrown out to the surface at the specific time, versus when you have built up a tolerance and the body do want to keep as many available, so you have to provide a more dense soup to hit more that pop up randomly

Eating fibrous foods actually helps keep pressure on the jaw and the teeth, and these are bones that often go through degeneration, and consistently putting pressure on them and making sure they stay used the same as exercising your body and keeping your legs and other main frame bones, stay strong, because they were constantly being used. Same thing apparently goes through the draw and limiting osteoporosis or the breakdown of the bone structure, and making sure that the structure stay strong.

I set up a meeting with head of R&D strategy and sustainability, and the advice they gave in order to move up in your career was to meet with people who can help you with where you are right now, and be strategic with your connections and time, and get to know people who can help you. By getting to know yourself better, you will begin to know that. As you tell people what your values are, what you are good at, what you enjoy, what you could do for them, what your dream job is, why you want it, and why you would be good at it. You tell people how they can help you, or who they can connect you with, and that's how you grow. You have to have a direction, and put the people around you in line towards that direction, network with the people who can give you something of value, otherwise you are wasting both of your time.

Where I bring value is that I'm good at asking people what they are doing, why they do what they do, and why they think that is the right thing, and what their motivations and reasons were, and helping people think of another perspective with a goal to challenge their approach, methods, and technique, and pay attention to other techniques that may give them a faster result. Even though their ideas might work, I want them to understand the other options whether or not I have the knowledge of the other options. I know basic morals and concepts, and I've learned from others, so I have an informed opinion on basics that they may be overlooking.

I like having a large set of knowledge covering the surface level of most things, but then specializing in one area that people can come to me for advice in. In that position, I like to take full control over those responsibilities, and work with others to collaborate, but not alongside, where we share tasks. I want ownership over my work, and I like being able to have a team I can network with if I need answers, but I want to be able to take initiative.

I also want a job where I can meet new people everyday to gain their knowledge on particular topics, and join ideas. I like the idea of hearing multiple viewpoints, and finding the similarities. Then connecting the two through innovative approaches, solutions, and asking more questions to alter the approach of each person to find equal ground that makes the process more productive. I want to be a critical thinker, on the spot problem solver that can use my knowledge from the past, and share that with others, and creating documents, PowerPoints, and charts to represent and influence my ideas to others.

I want to be a decision maker, leaving an impact, and influencing others. I want to influence change, and challenge old ideas, traditions, and processes, and I want to do that by being the communicator between major groups to negotiate where the problem actually sits. Where the effective work needs to be done, and what the desired result really is, and communicate that end goal clearly to each party and help prioritize the mission, and end goal.

Eliminating filler work, and filler projects that only take time away from the most beneficial goal.

I want my knowledge base to be around the sustainability of agricultural and environmental impacts. I want to understand systems, concerns, and consequences system wide. I want to learn the underlying reasons behind why projects are in progress, and be in a contributing position to determine the direction this problem needs to go, in order to support the most people, and be the most beneficial.

I can do all of this in strategy and sustainability of regulatory affairs, or research and development. I want to look at system wide, world wide issues, and help lead projects to solutions that solve those problems.

Complaining is fine, but it needs to be playful

Nothing is that difficult

Pushing all the negative thoughts away, and forgetting about how hard it will be to accomplish, because when you reinforce positive thoughts, you start to motivate yourself to do these things.

it doesn't actually matter at the end if you accomplish this goal because the whole goal of life was to enjoy the journey of trying.

Those are the positive thoughts you associated with, and those thought made you happy because they were positive, and you naturally followed through with them, because that is the "nature" of the human mind. That's what happens when you do those things.

You focus on what you can do more, rather than what need less of, and then naturally, you intuitively start becoming happier. Isn't that the whole goal of being selfless, and pursuing goals.

If you have to categorize what activities you want to go one direction, and what activities you want to lead towards something else. Examples for when to keep going once you are comfortable and dialed in are sleeping, exercising, working, studying, learning, meditating, writing, complimenting yourself, and having conversations, because these all lead to a more abundant and productive future.

Then the list of activities you should stop doing once you get satisfied are, watching TV, playing video games, scrolling on social media, smoking, eating, lounging, recreational activities, because these can be overdone, and have the opposite effects of overdoing it, causing addictions, and regret.

Each of these things is an activity you have to develop self control for everyday. Some days its easier than others, but willpower is always more complex than it seems because our surroundings, situations, and reputation are always being considered and evaluated.

We try our best to enjoy what we are doing, and nobody purposely goes into an activity overdoing it, but there are always past memories, and peer pressure associated with our motivations.

Your concerns over the morality of an action are not worth sacrificing your intuitive needs and desires, that make you feel happy and fulfilled.

That one moment of impulsiveness is a small impact against your beliefs compared to the damage continuing those beliefs will do to your self esteem over time.

We accommodate to the system, and just follow the rules because its so hard to change and leave an impact when they have control over us.

as we become more aware and see our constant lack of control. As adults we learn to be more forgiving, less apologetic, and more straight to the point because otherwise nothing gets accomplished. Its like wasting time, when we

As we start to learn how generic we really are.

Of course everything we have right now is perfect, and convenient, and accessible, but there is a high likelihood that it wont be this glorious decades from now.

Ecological preservation can mitigate the negative impacts of food production

maintaining ecological balance while meeting the nutritional needs of a growing population

feeding a burgeoning global population requires not only changes in individual behavior but also systemic transformations

solutions to prevent food waste, and food optimization are the goal

Eventually you are not going to be able to eat so abundantly.

Limited resources have to get distributed, and every single person will get at least the bare minimum. Today we are building our reputation of needing more than our fair share, but

You know that there are sustainable practices already being implemented and introduced, but its taking time for the ideas to get established. At some point, we are not going to be able to keep up our excessive eating habits, because every mouth to feed is food being taken away from you.

and achieve our goals as soon as we come up with the idea. Except, overtime, everything in reality gets equally distributed across all aspects of your life, allowing for a broader and more informed perspective.

This exhaustive lengthy approach of “gathering experiences and insights” ensures you'll be well-equipped to evaluate whether these missions are indeed aligned with your immediate needs, and foundational beliefs.

Or if this idea sounded good until you realized it was a lifelong commitment, and not just a one time solution to a lifelong internal debate.

We all get sporadic motivation, but not all intrusive thoughts are good. You are deciding between every action you make, the answer to “can i

live the rest of my life, knowing that i just did that?”

The nature of reality, always balances the

allocate/distributes/equalizes

Time allows for the initial excitement to settle, so we can decide if this is something we really want to do, or if this was a misunderstanding of what the day to day life would be like, and if this is something we truly would enjoy

control the outcome of our life

The US exports just over 20% of what it produces, far outpacing the amount of exports of the world's top agricultural producers China and India, whose agricultural goods are focused more on addressing domestic needs

the average American's daily Calorie consumption increased from 2,054 in 1970 to 2,501 in 2010

The US exported \$177 billion worth of agricultural goods in 2021

In 2021, China purchased about \$33 billion in agricultural products from the US, about 18% of the US's agricultural export market

With less than 5% of the world's population, the U.S. consumes 16% of the world's energy and accounts for 16% of world GDP. In comparison, the European Union has 6% of the world's population, uses 10% of the world's energy, and accounts for 15% of world GDP; China has 18% of the world's population, consumes 27% of the world's energy, and accounts for 19% of world GDP

The average person eats about **35 tons** of food during a lifetime.

average American adult eats 1,996 pounds of [food](#) per year

whether or not these countries benefit from our exports, or it's the smartest financial decision for america is not the point im trying to make.

Im simply referring to how there are other impoverished countries, lacking while we are striving, and we have the resources to do it, but it's a team effort rather than something our government has to decide. Society can change their habits and become more healthy, and pick better foods from our choice or resources rather than

learn more over the years as we get more experience, we start see how little we actually have control, and we see how satisfied we have become with just being normal.

and this convinces us just to live with what we have, enjoy it, and make the most of it. Its like we start to realize how difficult it really is to accomplish our own dreams and desires, so we settle for less. Then, we get caught up in the rat race to be providers in hopes to give our family the freedom to pursue their dreams and live the life they want to.

The fear and anticipation of what the future holds is more disturbing and unsettling than obvious observable challenges in the present. The uncertainty of what lies ahead puts a lot of uncertainty and doubt into our head. Assuming challenges, and danger, and regret.

Realize that sometimes "life occurs" in the nature of the process, and "life occurs" when you are enjoying the individual consecutive events, that build up to the end goal, rather than just anticipating the end product. The most fascinating aspect is learning how we got to step 2 rather than just waiting for step 10 to happen. The individual behavior of "this one molecule" is a lot more insightful than just waiting for the fruit to ripen, stressing over why its taking so long to reach this end goal.

Sometimes that piece of fruit never accomplishes its end goal, and its not the tree's fault. Its environment and circumstances led to a different outcome. Unexpected, unavoidable, unpredictable events that challenge the natural progression and sustainability of life.

Every living organism experiences this. Humans are not the only one who suffer from unpredictable, unforeseen events. Experiences a

go of the baggage of expectations and embracing the present as if encountering it for the first time can lead to a heightened sense of wonder and a more fulfilling engagement

You then, don't have to resort to food for pleasure because you are happy and satisfied with other areas of your life.

So why didn't you think that. Why did your actions feel controlled and manipulated rather than natural? Probably because you are the one controlling those movements.

Wouldn't it be nice to take food, and water off the list, and just make intuitive decisions, that assist, and strengthen other habits that we would be working on to bring us closer to the goals associated with communicating better with others, and having stronger relationships

I know that at least a lot of my behaviors are oriented to impressing others, and making sure they like me, so I think that is why I tried so hard to show perfection, so that the people I admired, had something to admire in me too

As a result, you get the reaction, and outcome you want from your efforts, by trying less hard.

Yet un informed about the importance of health and longevity. With the current American diet, we are not giving our body the diet it craves, and not providing this array of nutrients it needs to run properly.

Your body knows what nutrients to seek after, and knows as soon as the food hits your tongue if that is the food you want. When we follow the pleasure from taste, we can usually stay fairly healthy. The problem comes when you cheat yourself and go for only the foods you think look good rather than getting the food you know you desire and should be eating.

We all tend to continue overeating, when we aren't consuming the nutrients our body really wants, when it tells us that it wants it. We end up eating everything except for that one item and wondering why we still aren't feeling satisfied. Wondering why we are still hungry. Continuing to question and ask ourselves if we truly have the willpower to to stop eating earlier with whole foods compared to unintentionally eating more with processed foods. Well I promise you that whole foods will fill you up faster and at a lower calorie comparison than any processed or low calorie food will. I know it takes time to practice knowing which foods you think are the most appealing in the moment, but when you are present with yourself, you will know exactly what you want.

I know its unlikely that anything bad will happen to you soon however, it happens unexpectedly

And my experience was unlike most people, who might get advice before they try to lose weight and make a plan. My weight loss was learned the hard way.

What I personally learned is that if you ever have lost enough fat to get around 10% body fat, then you know that it is one of the hardest things you can do mentally, and then every pound of fat you lose below 10% getting closer and closer to 0, becomes harder and harder. Your body really wants to hold onto the fat for safety, and it would rather get rid of muscle instead. You will never know how difficult it is to reach the point of being shredded until you've reached it. Your body fights back so hard to hold onto those last few pounds of fat, and decides to slow down your metabolism instead, so everything in your body slows down, especially your brain like i mentioned before, and your heart.

I used to believe that you had to continue to push your calories lower and lower until the fat came off. That is wrong though, what I learned is that as your metabolism gets slower and slower, interesting things start to happen as the system in your body starts to turn off to compensate for that low calorie intake, you are so tired, and less energetic. You don't want to have to do anything, like taking the stairs is a struggle, and you reach a set of problems aligned with being in starvation mode.

Eating less and less food, just to keep losing fat, is the perfect way to lose energy, decrease your metabolic resting calorie expenditure.

I used to think it was hard to lose weight

Now after understanding how certain foods are too calorie dense without any nutritional value, I understand what food choices lead to satiety.

I don't choose food for the flavor alone.

I don't eat when I'm bored

I only get food when my body craves it,

I only when I have a physical desire.

I feel satisfied all day long and don't snack on chips throughout the day because I know if I'm hungry, it's just better to have a normal meal.

I only allow food to make me feel energized and comfortable

I never let food make me feel miserable

If you set the guidelines that you are not eating at all, because you need to limit your calories today. However, if you snack a lot, and are still constantly thinking about food, it digs into your productivity because you are thinking about what you are going to eat next, if it fits into your calories for the day, along with just the time it takes to prepare it.

You reach a point where instead of people seeing you as healthy, strong, fit, that as soon as you lose more fat its like that is not normal, that is getting crazy thin, that is neat to see in person, but you know they are way to strict on themself, they probably don't have much energy, and you know they are looking for attention. Little did I realize other people saw me differently, and the body I was aspiring for was always covered by a shirt and nobody either cared or noticed.

Trying to lose weight and mentally get the process to reach the ultimate goal of achieving this shredded look becomes addicting especially if you grew up overweight and without the attention you wanted or wish you deserved. As soon as you see there is a fast weight loss hack, you better try it out, because it can't hurt to test it out. Then you search for as many tricks as possible, so you can put the least amount of work in, and still achieve the same results.

where you can have more flexibility in your eating habits, and not have to worry about looks, or gaining too much fat from one cheat meal. You can also do a small bulk from 10% back up to 15, and still have the confidence to go to the beach. Then once you are up to 15%, you can recomp your body on the way back down. Where muscle growth slows, but still happens while you are simultaneously losing fat.

if you are healthy and strong, you never have to worry about being called names. You don't have to be shredded, you don't have to have abs, athletic ability and strength are more important

However, I've had a friend of mine once tell me I had "death face". Which is apparent when your face looks so depleted, sucked in, and dry that it almost resembles a skeleton or a face of the dead.

After writing down how I felt from different foods, finding out what gave me energy, along with what my body did when I tried cutting out food groups. Now, I didn't just happen to write down all this information and experiment with my body for fun. Last year, I went through the hardest struggle of my life. I learned what it was like to struggle. I got to experience what it was like when you become underweight and malnourished, and I had to learn how to recover from it.

I finally learned my lesson about why eating healthy is important, and after everything I've gone through, and all the research I've done. I feel qualified to give tips, advice and unbiased information from my experience. I wrote this to keep you from going down the same path I did, while also providing you with the mindset I achieved. My belief is that we should all become educated, and show that

I didn't know that you can't cut out food groups. I blamed certain things on weight when my mood was based on the foods I was eating.

physical condition forever, even though you are miserable where you are at. You know that you like the attention, and for some reason it seems to be worth it, so you keep mentally repeating to yourself “I’ve been fat and I’ve been shredded, and I’d rather be skinny any day” to convince yourself that you enjoy this. It’s almost like a drug that changes your brain chemistry, and you don’t want to leave it, even with all the poor consequences.

food will finally be used as a source of energy rather than pleasure.

I know it’s hard not to dive straight into counting calories, and do extra exercise to lose weight, but that task really doesn’t give you the goal you are looking for. I promise. I tried. Confidence is the first thing you need to get an understanding of.

I had low self esteem

I thought i would be happy when i was skinny

I went through “the struggle”. I had low self-esteem just like everyone else, but I got to a point in my life where I just wanted to be shredded, and I did everything I could to get there. I committed my life to counting calories, going through starving periods, eating disorders, exercising rigorously, all with a goal of becoming confident, and getting more attention.

I told myself that I would be happy and confident when I was skinny, but what you start to realize is that you’ll never be skinny enough.

You don’t let yourself stop at “good enough”. You will continue to push

That mindset came from spending too much time on social media comparing myself, causing a low self esteem. I understand what it is like not to have confidence, but if you could only bypass all the hardships and struggles to be confident. Then just do it.

but I learned what happens to the body when you keep chasing a lower body fat

because you have no confidence and you’ll never being good enough no matter how lean you get.

When I convinced myself to get as lean as possible, it was because that is what I thought would make me happy. As I grew up being introverted, I attributed that to being overweight. I was embarrassed of myself and did not want to draw any attention to myself. In college, i decided i was going to do whatever i could to have that instagram body we always see and admire, well the closer and closer i got to what i thought was my goal of being skinny with abs, there was always greener grass, i could always be more lean and get to a place where i would be admired and truly proud of myself. The end goal never stays still.

I suffered from thinking that I would never be good enough.

All we are trying to do is change how we express ourselves to others, and that new

Although it's not possible to completely eliminate self-comparison, we can pay more attention to the real world in front of us.

When we would have been so much happier sharing our thoughts and not letting them get forgotten.

were doing all these years coming up with responses, having conversations, and interacting with others, so the we could build a foundation that consistently reflected a set of values that we wanted to be known for.

admittedly love our smile, eyes, and body shape, and we keep that to ourself, but we notice when other people look at those features.

Overtime we will each reach your physical goals, but first we are each going to love ourself for the way it is.

We hate that we lost our opportunity, but then we realize it was not big deal. Leading to us keeping our ideas to ourselves because we keep missing out on sharing it impulsively when the moment came and we were supposed to.

It's not possible to forget about them especially after you have thought about them for so many years. However, your intuitive decisions to reinforce positive behaviors naturally, empowering you to feel authentic in your

how they might affect others. We have practiced moral and ethical practices our whole life. So that now, when we do act intuitively, we know that we will never be affecting someone in a negative way.

The goal is to become confident in social situations and contribute during a conversation, and that confidence will be

The goal is to eventually be able to make healthy decisions intuitively, without hesitation. Trying your best to avoid the overthinking involved with whether or not its “okay” to eat sweets. Its relevant to your ability to

all the opportunities we missed out on, and we regret not making a decision at all. While also being judged for being shy. While also holding back so many times that we actually start to not worry if we get to share our opinion.

You know that nothing will lead to bad habits because you have focused so hard on doing the right thing year after year.

I promise you’ll never forget about them because of how long you have been focusing on them, but truthfully, if you did forget them, you would still get the same outcome either way.

Becoming confident, and feeling socially accepted for who you are.

Wasn’t that why we were overthinking all these years? To make sure we never hurt anyone’s feelings, or embarrass ourselves from saying something stupid. Well,

Learn that they are not worth your time. They are selfish, and they are the type of person that doesn’t care about your feelings, and your life will be much better without them anyways. Move on with your life and be confident knowing that you were not treated the way you deserved, so you decided to leave

So many people spend their whole life working for someone else, trying to impress someone else, while also putting all your hard work and thought into supporting others. We come home too tired to work on personal projects. We don’t have time for our hobbies, or time to take vacations. Its like our life is not ours, because we are so busy doing things for others. Neglecting all the things we really need and want.

At work they are told what to do each day, they are told what time schedule they have to be there, and they just come home to just relax. You may think that you don't have the energy to do anything when you get home from work, but if you start eating right, i bet you will.

We are all being told what to do, all the time, so we get burned out to the point where we only have enough energy to get through our job and make it home. We don't want to do anything else and we lose that quality of life because we have to work and pay the bills, but feel like we don't have time for anything else. I think we always have time, we can always rearrange what we spend our time doing, reanalyze if we are being productive, and then start a new lifestyle. If you are stuck and burned out, who says you have to keep your job, who says you have to work in that same position the rest of your life. Find a way to stay excited and stay motivated.

We often don't choose the right activities to do outside of our work schedule, and as we get burned out, we get depressed because there is nothing exciting going on. Well you have to create that for yourself, you have to get out there and get the momentum started. Clearly people are not coming to you with fun things to do. People are not constantly inviting you over just to hangout and talk. So you have to be the one that does it.

What if you had more energy from the food you eat? What would you do as soon as you got home and got some energy? Would you drive back into town to go workout, or find new friends? Why do we allow ourselves to slow down and do nothing, to only then feel sad for ourselves because we aren't satisfied with how we spend our time.

In the daily race of having to commit our time to work and then spend time with family, what are you supposed to do in your one free hour a day?. Well we usually just spend it on our phone or watching TV, but do you wake up excited to do that? Do you wake up excited to scroll through social media on your day off? What could you start doing that would make you excited to get out of bed early, maybe its taking a risk and getting your adrenaline pumping, being an entrepreneur, or writing a book to tell your life story, or find a new hobby to challenge yourself and then invite your friends to join you every once in a while.

An example is when we give people the advice to quit smoking, it takes willpower, but anyone can do it, and we all know it is the best thing to do for our health. Even though you'll have a craving, trying to go cold turkey, you can faze it out, even if you relapse every once in a while, its okay, as long as you are moving in the right direction. Eventually you will reach a healthier lifestyle, live a long life, and be glad you convinced yourself to change.

Researchers have now taken on the question of “how long we can live” if, by some combination of luck and genetics, we do not die from cancer, heart disease, or getting hit by a bus. Searching for that human potential while still accounting for the fact that our body still fades with time. Even if we make it through life with few stressors, this gradual decline sets the maximum lifespan for humans at somewhere between 120 and 150 years. While if you were able to live that long, and were still healthy and physically capable, you would get to enjoy, share, and teach everything you have learned throughout your life, and experience the life you worked for all those years and finally have the opportunity to live a life where all you do is what you enjoy. Never having to leave life without fulfilling the hope to do everything you wish you could have.

I believe that life can become more enjoyable everyday, with more passion and energy if you are willing to sacrifice giving up the sugar that you crave so badly.

Then there are others that just fit in with the crowd and participate, and aren't worried about the consequences. People don't want to miss out on all the drinking, they don't want to miss out on the fast food,

We have all these misunderstandings of where extra calories come in

Nobody will ever change your mind with facts. The only way to influence someone that is addicted is to change the way they feel about their own opinions. You have to make people question themselves.

Then there are others who sat around, never got to travel, It sucks to see that so many people just worked everyday so they could save up for retirement, only to stay in bad health all these years, and by the time they get to the age where they should get to enjoy everything they worked for, now they are too frail and sick to experience everything. They worked so hard to reach this point in their life but didn't take care of themselves. All they got was enough money to get by in life to pay the bills and spend quality time with family, but they have nothing to their name. Its too late to go back and change their past actions. They didn't have the time to build relationships over the years, because they didn't have the time, now they feel like they are all alone and just have to be content with what they have, and make the most of it.

Don't end up as the person that asks “where all their time went?” Live your life now and everyday, so that you don't have to say “it went by so fast”. The one thing we all have in common is the time in a day and the choices we make to lead to what we experience. If you aren't smart with your time, and if you don't do anything with it, then time will move along without you, people will move on, and people's personalities will change. You can't live this day forever, and you have to live each day as if it is your last. If we never really accomplished the things that we wanted to. Then we are missing out on fulfilling our passions and purpose.

Just putting in 10 years of hard work will feel like nothing over a lifetime, if you can reap the benefits of everything you spent time building your first years out of high school, then the rest of your life will be smooth. Take your 20's to build up, go to college, work as hard as you can in your job, and get to the top. Get to a position where you make the important decisions, a position where people come to you for advice and expertise. Become the best version of yourself now and get ahead of everyone else so that the rest of your life is enjoyable and trouble-free.

is really that difficult if you are just willing to put in the time and a little bit of effort. You can spend your whole life going down the same road you are on now, or you could spend a few weeks to get onto a different route and ride down that path for the rest of your life. All you have to do is have the courage to fully commit to the new path. Stop doing the same old things. Stop keeping a negative attitude and looking for all the hard things you experience in life. Stop comparing yourself to others success, and just focus on where you are at today, and be better than you were yesterday, then become even better tomorrow. If you spend time in your own mind, thoughts will come to you, your ideas will autogenerate, and you will all of a sudden know what to do. Start writing things down and remind yourself of the path that you want to go down.

Memory is involved with a recall of a physical circuit.

, and you almost relive the same exact experience, even with the emotions involved. They are molecules that do not have the ability to make decisions, like when to show up and leave, because that is up to the system as a whole. These common neurotransmitters are instead used to help every nerve cell get on the same, and cooperate.

of people that always took a risk, stayed busy, and never held back from what they wanted. They are the ones who leave feeling fulfilled and appreciated for their contribution to mankind. They are the ones who die without regrets, because there was nothing else that they forgot to do. They got the pleasure, and the satisfaction of getting to be themselves, knowing that they were surrounded by people who actually liked them for who they are.

Neurotransmitters always show up at the right timings, in the right areas to convince us that anytime this part of the brain lights up from sensory awareness, we need to pay attention and learn from this experience.

Dopamine is involved in a process called reinforcement learning. When you experience something pleasurable or rewarding, dopamine is released in the brain. This release strengthens the neural pathways associated with the pleasurable experience, making it more likely that you'll engage in that behavior again. In essence, dopamine helps your brain learn what actions lead to rewards.

Dopamine is a key driver of motivation. When you anticipate a pleasurable outcome or reward, dopamine levels increase, motivating you to take actions to attain that reward. This can be critical for survival, as it encourages behaviors like seeking food, water, and social connections.

Dopamine is closely linked to emotions. It contributes to the feelings of pleasure and satisfaction associated with rewarding experiences. This emotional component is what makes dopamine crucial in creating positive reinforcement.

What is special about dopamine though? Why is it crucial to the brains reward center? How does dopamine cause more reward and pleasure that other molecules cant? Does dopamine have instructions or can it communicate? Why is this molecule special?

I would be standing in the kitchen, half awake, in the dead silence, standing there with only my thoughts. Almost in a meditational state. Where I got to a point where I just had to accept myself, and everything around me, as it was. I viewed myself as I was, and the position I was in my life, and truly wanted to make a change. That is where I believe I changed my viewpoint on life, and had a true desire to make a change.

What are your opinions on people with a restricted diet? Can you tolerate and enjoy the same things that they do? Is it too hard to stop eating your favorite foods? What are these people with a great physique eating?

What I didn't realize while i was down in that low place. Is that there is this problem that occurs with your brain where it doesn't function the same anymore. You could say it becomes "fuzzy", but that new perception almost allows you to focus on life differently, as if you are a new person because the brain isn't racing around trying to look for problems. As the brain slows down from not getting enough blood and nutrients, it seems like you look around and become more in tune with everything around you. Learning to be more introspective of how the world works around you, and how you make decisions based on your emotions and feelings in the moment.

Of all the facts you learn, there will be certain facts that you believe are true, and make complete sense to you, these will impact your daily choices in life, and the choices you make down the road. My research and facts stated are directed towards “how you can eat to maximize optimum health for longevity and enhance muscle growth from working out”. Along with “how eating a certain way can reduce your appetite, make you eat less, and cause weight to come off easier”. There are certain practices that you can add to your current daily routine that can be beneficial to make your goals easier. When you have a desire and challenge to play a mental game with yourself to see if you can accomplish something new.

These are all things that I believe to be 100% true after experiencing it myself. Although it helped me learn more about my values in life. The benefits of confidence, self worth, and dedication to a happy life, came from getting back up to a normal weight, and having a true quality of life, and realizing i can share my story and help others

I was to the point where I wasn't counting every calorie, and I wasn't feeling guilty about foods. I realized that once I got to that status of being shredded, I got trapped in a mindset of needing to stay this way forever because there was no way out, there was no way I could get back to where I was. I wasted all this time to get here, and now I'm stuck, this is my new identity, this is who I am. I finally came to the realization that I had to get myself back and healthy again.

I have a passion for this, after going through a health scare myself, so i'm not here just to sell somethings. I have a story I want to share. I have a legacy I want to leave behind, and I want to help change the way you view food so that you can have motivation to eat healthier. I want to teach you the mindset that I acquired, and I want everyone to be healthier, and learn everything I have without having to go through hardships to figure it out. I have a true passion for this material, and I truly just want to share that with you. It stems from having a purpose greater than yourself, and just feeling the desire to contribute to the quality of life for others. Like, it really isn't about me anymore, although I crave the feeling of appreciation from others due to the act of giving back. It's more about being able to share valuable information, and help others who struggled in the same area that you did.

Like putting together these books wasn't fun, but it fulfilled my greater purpose. I already understand the information within the book, so I don't need to put this much effort into making it “flow and be comprehensible”. I did that for you, so you can fully grasp it, as much as I do. So, you might as well read it all the way through, you might as well get on for the ride, because this is designed to help you more than it is to help me. Take advantage of this resource, and let it steer you in the right direction.

Polarity - means it has a beginning and an end

Pcr

Gas chromatography

Grind to dust -> NaOH (vibrate/shake/disrupt cell wall) -> isopropanol -> ethanol x2-> 1% tris (water) -> centrifuge -> filter continuously through process, pipette -> use nucleotide matching base pairs for DNA collection and amplification -> run PCR arrays, read data

Do you know what DNA and genetic information is, it's the one thing that gets passed down from parents to kids, and it's the one thing that makes you special, but it's also the one thing that shows how connected you are to everything else, and proves evolution, within the last hundred years, we have learned about the existence of DNA, and we have been able to see what we are related to, according to the code, and in small differences, due to explainable, variety of random mutations

Works Cited -

As if you couldn't avoid

you intentionally set your focus

but I like to think of it as restricted access to what I can do in my freetime because that perspective forces me to focus on activities that im proud of!

This ensures that your time goes towards relevant goals

Nobody else can change our perspective for us,
happiness is in our perception, and can exist everywhere around us. Yet, we still choose to limit ourselves to a small set of familiar preferences.

What do you want to do with your life? How can you filter it down

What do you want to be known for?

What should you dedicate time towards learning?

What skills are the most applicable?

Just aim towards something, it doesn't

Focus more on your creativity, and playfulness, and be opinionated. Try out new things that others won't, and be original and unique with your own ideas. Stand out by being active and healthy because laziness is the new norm.

Your goals are more than just...

Whether your situation involves meal prepping, making dinner for a family of 4, losing weight, building muscle, eating your favorite snacks throughout the day, or navigating personal restrictions. You are not going to die, if you don't have those things. So the only reason you feel like you are suffering from not having those things is because your thoughts have associated safety, peace, and control, with those objects.

Except the truth is, those only work for you because that is what you have always done, but that doesn't mean you have to have that forever. Other people have come up with other solutions, because that's what works for them. Eventually you'll have to adapt and try something new, and that will be painful and stressful in the moment, but it leads to a better understanding of your true needs and preferences.

Life is too short, don't waste it trying to impress people.

Its like our goal is always “how can I change what I’m currently doing to make others like me better.” Rather than “what do i want to do right now regardless of what others think?”

We all have our excuses, questions, and uncertainties, but what is the best way to fit these habits into our lifestyle? What even is a healthy diet? How are you going to create a personalized meal plan, and find a perfect workout program to reach your goals?

Incentivizing hard work, selflessness, generosity, and determination, which allow you to truly feel proud of yourself, regardless of what was accomplished that day. Reducing the need to cope, escape, distract, self-medicate, or reward pleasure.

push me towards growth!

That mindset gives me a reason to try, because I know that my current efforts are going towards a goal that I want, and I know that I want it because I got to choose it!

That ability to commit to something is motivating because it gives life direction! Everything we do takes work, but if all you can think about is the pain, then you're missing the point of why you are trying at all.

You don't have to think about it as work! it's more about the opportunity to pursue something that interests you! The benefit is getting to have conversations about your experiences and perspectives while you were going through the process!

That insight you gain is created through the act of trying, failing, and succeeding. Which later becomes a tool for wisdom as you gather reliable information on why you should follow a particular set of guidelines when making a decision.

This practice of following your own advice, helps you build confidence in your ability to rely on your current knowledge rather than constantly going to others for suggestions.

I've personally spend 100s of hours trying to get others opinions on a topic, when i could have used that time to work towards something that would have fixed the problems I was having.

Only to realize that

Afterwards I realized that my reason to ask for advice and suggestions was only to distract myself from doing what I knew I was supposed to. This repetitive

anxiety of wondering “what if, and what

allows you to stay confident because you get clear feedback on what works, and what's difficult.

This understanding gives you a story to tell rather than excuses to justify a poor behavior.

Without having to decipher what other people meant by their suggestions.

This not only gives you a story to tell, but also credible insights on why you chose one path over another.

the alternative is aski

understand that you could waste a lot of time trying to look for suggestions

there is a lot of suggestions that will distract you from just doing the work that “you know you should.”

Being curious is a good skill until you realize that you’ve spend 100s of hours wondering why you should rather than just

Youll find out that you could spend 100s of hours looking for answers to a problem that could have been solved if you would have just worked for it.

Knowing which work is beneficial is why we contemplate

you understand that

because you understand that knowledge is onl

you

understand that in the past you were only looking for suggestions,

is just an excuse to avoid doing the work.

you trust your own judgment, and

understand that you don't need suggestions or validation.

in xyz, because you never

Suggestions

Recommendations

creating your own

should

you should do things a certain way

should believe that

Should

believe

Thats called an opinion

events should happen a particular way

Eating is only a small part of a fulfilling life, but the mindset you gain from

you don't have to complain or come up with excuses because happiness is a perspective.

The hardest part about any commitment is getting overwhelmed with the workload, and believing that the reward is not worth the effort.

Self control is a joke

because that

mindset still allows me to choose between a few productive activities,

Laziness is not

Its a

then you'll always default for that easy option if

you will always default to that choice when

have to take responsibility to ensure you don't slack off,

because if you don't, you're only limiting your access to opportunities.

keep yourself accountable to make sure you don't slack off.

so the job of

that you thought best aligned with the life you wanted.

perceived aligned best with

Aligns best with the life you “perceived you exist in”, but you have to want something different

relies on

The conditions in which

goals take priority?

conversation had

put in the effort required.

a healthy quality of life, you can actually benefit

in watching them succeed, and they w

persistence in

helping others live the quality of life that you want to have allows you see the solutions that would also work for yourself

committing yourself to a life of positive self-talk. This

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If someone wants you to join in on an activity that doesn't fit your morals, then skip out. You don't need to do the same thing everyone else is doing, and if you were truly confident and happy with yourself then you can find joy in every activity in life within your normal state of mind.

Confidence continues to dissolve the less we persist.

in this world wants the confident, sales, assertive, relentless mindset.

It's not going to be easy to develop that part of your mind, but

So if you want the skills, then you have to make it a lifestyle. Everything you do has to be supported by your morals.

eat healthy, live a healthy lifestyle, it's habit creation, discipline spans across all decisions.

We have to do it on OUR OWN, because we are the only ones that can change our circumstances.

You have to really want it.

the goal becomes simply “self-improvement” itself.

So in order to find direction, you have to filter down your options

Your passions are “where your mind is headed, what are you focused on, and what is at the center of your attention”.

because they are aligned with the “NEW” lifestyle you oriented your attention towards.

And your mindset is oriented on your goals so you look at things in the world around you in a way that

Which creates an opportunity for anyone who is interested in

But you are better than tricks

You don't subscribe to that shitty advice

People will recommend tricks to help you stop eating, but they seem more like distractions, from a bigger problem that needs to be controlled. Examples are to keep yourself busy by continuing to work, or practicing taking cold showers to increase your willpower, or write down your thoughts every time you are hungry and take notes, or to place the snacks in an inconvenient spot where you are less likely to see them.

Minimalism and simplicity don't have to be essential to a happy life, but they are good reminders on how to avoid the advertising and marketing pressures. We are all susceptible and responsive to the products and strategies, that's why businesses use them. That's why they are still in business.

We however need to simplify our lives. We can do that by limiting the amount of stimuli we expose ourselves to. Focusing only on our values/needs/morals, while resisting the allure of materialism and instant gratification. By doing that, we remove many of the distractions that lead to poor choices. This focused mindset aids in maintaining discipline, even in the moment of facing a challenging personal decision.

With this in mind, how do you manage the stress of knowing you easily give in to temptation? Does admitting to a lack of willpower cause negative self-criticism? Knowing that, will help determine how important self discipline is to you and how structured your routine needs to be, in order to have a healthy balance of self control.

that there are two types of people. Those who have worked for what they have, and those who complain and come up with excuses because they need to justify why they didn't work as hard as they could. "Why are our lifestyle actions any different than theirs? We tend to believe that we are willing to put in the work too, but progress, and results just don't occur and show up the same for us, when we do try".

You currently have these preconceived ideas of a goal that all your actions lead towards. Goals that usually come down to being "positively seen by others".

It's like we spend a majority of our life trying to impress others by manipulating our own actions throughout the day just so that we can fit in, and be liked by them.

Yet we do this at the expense of our own health. We never show our true personality, because instead of doing what we want to do, we do what we think others want us to do.

You begin to see how everyone around you seems to be negative, and talk about how everything around them is a struggle.

If others don't want to participate with you for their own health sake, that is their loss. If people don't want you to join you on your health journey then that is not your problem. Sometimes you have to lead the way, and show others what is right. Just imagine how if you start now, then in the future you will be better than anyone else. You are just going to have to go for it and let's see what happens

If you tell others about your goals, it helps motivate you even more because it's almost like your reputation is on the line, and most of those people are more than willing to help you on your path to a better life, but they need you to tell them what to do to help, because they often don't know what they can do for you. Whether or not they want to go down the path of a healthier lifestyle themselves, they understand that it is a smart choice that you are making, but they often aren't willing to make the sacrifice themselves, because they know how much willpower it takes.

If you truly want to put in the effort for a return of a longer, more enjoyable life, then you have to find enjoyment in everything you do, turning every difficult task into a game where you encourage yourself to get better and master your own body without ever letting the task take control over you. If you want a life worth living, without making life seem like you are in constant stress, then you can never let anything turn into an addiction. Which happens more often than you would think, especially once you start to put too much of an emphasis on a particular activity, and have it become such a priority that it affects your productivity in other areas of life.

Is how you build a reputation as a... because we could all use another role model that motivates us to do better,

but we don't want someone that makes us feel bad about ourselves

But you're not going to get the respect and confidence you want from restricting calories.

We are all so busy overthinking our past regrets and mistakes that we never end up doing what we want. We keep thinking about what we want to stop doing, yet we continue to do those things because those topics are always on our mind, and making us crave those bad habits.

It's a mindset on the way you look at life, and how positive you are able to stay, and how much you consider your negative fears

Peer pressure will entice you to join in when others pick unhealthy snacks, not because your friends are asking, but instead it's the internal feeling of being left out.

Knowing that the things you LIKE are because YOU like them, not because you saw someone popular having one.

It's as if "peer pressure" is not because we were forced to join in on unhealthy activities, but rather us to participate because we want to be seen by the people we admire. We want fast and easy commonalities, rather than actually building genuine connections based on our individual values and interests.

Only to find out later that we never built deep meaningful relationships, because we were so busy trying to impress others, that we never actually got to be ourselves.

Be the positive peer pressure

stay in a positive mentality to resist the temptations.

Maintain the mindset that you always make the "right" choice, and develop a lifestyle that you want others to live by.

Don't allow the group pressure of missing out entice you to join

Do it for yourself because you want to do it, not because you think it will help

You keep thinking about why this sucks.

Your mood changes as your attention changes

appreciating the small things around you, and the things you already have

Your thoughts are the only reason you are struggling

You can think of poor choices as an expense to your willpower each day. Some things you do increase your available willpower and energy, like whole foods, productivity, and exercise. Then there are some things that drain your willpower and energy like junk food, overeating, and social media.

Drain your confidence

I personally think it stems from poor attitude, behavior, actions, or reactions around others in the past, leading to regret, shame, and embarrassment. Combining into a fear of future judgment, disapproval, or discomfort.

Dont let anyone put the thought of who you are supposed to be in your head.

Some people will not react with the same enthusiasm towards your choices, but you still have to put the thought in their mind on “who you are”

You could live the same life skinny or overweight,

You don't need to know how it works, you just have to do it. Once you

The mindset of confidence isn't easy, because it takes true discipline, fearlessness, stability, and the willingness to make mistakes.

Don't tell anyone or think about what you are struggling with

Well why are you expereincing discomfort, what expectations or feelings were you hoping for

Nobody wants to be in pain or struggle, but the thought will always be worse than the initial shock. Learning about the unknown is a risk, but anyone can do it. You are not afraid, you just want an easy excuse. It's hard to take the first step, but it hurts worse knowing that you never did because you were afraid the whole time.

Confidence is a mindset, and it takes a lot of practice, time, and effort to be consistent. It's a skill that affects every area of life. It's the ability to manage the stress in your mind when fear, anxiety, sadness, anger, and jealousy take over. In moments of need, your mind will automatically tell you to cope with pleasure. Confidence teaches you to be proud of your situation, because you've been working hard.

Positive self-talk, and self-control are the rewards that come from consistent pride. When you are craving sweets, wanting to overeat, and eat out of boredom or sadness, your mindset can save you from bad habits. Consistency, willpower, energy, and xyz all form your mindset, and it starts with the food you eat, and then you choose healthy foods next time

So be the positive peer pressure, and select for confidence

What do you want to teach people

What do you think is the right thing to do

The human body is a reflection of its environment, look at your fridge, and let me know how healthy you are

When I say you have better energy levels, I mean it! Its an incomprehensible difference, because finally, you want to get involved, try new things, go on adventures, and get active, and its all just because of the food you ate.

Goal

Mission

Minimalist

Simplicity

Life that you want to live

Quality of life

That means in order to set an example, you need to do the right thing 80-100% of the time

A healthy diet is one where we eat a variety of natural whole foods in their pure form before they are processed, refined, simplified, and/or concentrated. This is what should make up 80-100% of our diet.

When it comes to eating, you have to choose food that makes you feel energetic, powerful, and think positively. You will know if your mind is in the right place if you constantly ask yourself if everything you manifest in your environment is either positive or negative, because everything you see in the environment is actually neutral, and you make what you want out of it. When you are mentally stable, your thought will follow and then your actions will. Nobody can control your thoughts, but you, so you have to make the right actions when you have control and make choices throughout your day that you know will lead to an improvement of your body and mind. Our body and mind are malleable. It really isn't that difficult to alter the way you think and live, if you commit time to the transition.

Figure out ways to PROVE that your efforts are not going to waste.

It was never hard, it's always just been an accumulation of small tasks that you don't know how, or why you should do them.

combined with our experiences differentiates us from everyone around us.

recognize all the other miracles in the world. Then appreciate the physical world, because we will never know where the idea of "life" came from.

Its all a part of YOUR bigger purpose. Your habits and behaviors only help YOU. So be selfish and prioritize your personal needs, because you cant make good selfless decisions unless your health, mood, and personal goals are being met. That's because we all have internal motivations and driving forces encouraging us to stay social, interact, and be a helpful service to others. Without having your "self-promised obligations" completed, you won't be able to fully participate and invest your attention on the things you want to enjoy because you haven't prioritized your body's needs before you started trying to chase after goals of social approval.

The effort of being mindful of all your actions is similar to meditation, just on a simpler level, allowing you to learn more about yourself, along with the way you respond when certain scenarios arise. If you are able to stay mindful of your actions throughout the whole day, then you can begin to examine more of the world around you, become more introspective, and have the desire to learn more about how the world works around you. Another benefit of creating this mindfulness would be that it helps you mentally prepare yourself throughout the day, keeping you aware of the amount of time you can spend on an activity, or how long you have until you get to eat, and motivate yourself to keep working until then, because you can push yourself to meet a goal before that time hits.

our potential consequences, and regretting what we did in the past, that we spend so much time trying to prevent those same mistakes.

rather than just knowing what we did was "okay" and moving on.

We outway the pros over the cons, we have convinced ourselves its okay, and we can fix our secondary problems later, but right now we want an easy solution for the problems right in front of us.

We need to get better at prioritizing things important to us.

Pleasure from food should be low on the list of importance, but our actions say the opposite

The solution is to look at the situation as a whole, understanding the benefits and consequences, and realizing that there are consequences involved, and we need to find balance, and not ignore the consequences, and realize that maybe there is a better solution for happiness, if our current solution causes this much harm.

You have to live a life that you enjoy
And if the food isn't giving you the energy to do that
You need to stop sitting around watching tv
You do that because you don't have enough energy
Life is boring unless you are always learning and exploring

an idea, feeling, or opinion about something or someone, especially one formed without conscious thought or on the basis of little evidence

Be optimistic of the possibilities

That all comes into balance naturally when you make nutrition and health your number one priority

As a result of doing this, we fulfill our purpose of

Happiness and purpose

One of our biggest purposes in life is to.

Put in the effort to be positive and energetic

Do things that make life better for everyone around you, those healthy habits will increase your quality of life

getting to experience the enjoyment from trying a new food, and mindfully paying attention to the flavors, learning the flavor profile and its complexity.

Not eating healthy is like going through a living hell

So as a goal to regain this moment in life, we redirect our attention outward, looking to our families for inspiration. Adopting their aspirations, goals, and desires becomes a way to embark on a fresh start. These new goals reignite a sense of purpose and direction, making them achievable once again. The process not only increases our self-worth but also nurtures a positive attitude toward life.

We can continue to look outward and create new goals for ourselves every day. Whether that be setting dietary, nutrition, career, or relationship goals, each one changes your brain chemistry. Giving you the motivation to get more involved and contribute to someone or something other, more, or greater than yourself. By imaging new habits, we get to re-live the excitement of our youth and experience life with a higher sense of gratitude and appreciation towards our situation.

I believe that when something bad happens and it serves as a wake-up call, that is the moment when you will realize that you need to live a healthier lifestyle. It demonstrates that your health is clearly not as good as it could be, and that your life is about to get much worse unless you immediately start making improvements to your health, but why would you take the chance? Why not consider developing new habits and becoming healthier now? That way you can potentially avoid problems before they arise.

Everything in your body is connected so, as soon as one system starts to fail, others start to go down hill also. Your body is constantly giving you signs and signals, but unless you are aware and present with your thoughts, you aren't going to notice something is wrong until something bad really happens.

The goal is to appreciate the world around you, eating healthy, and acting proactively, creates that sense of

After being in a slow mind state and realizing what it was doing to me, I learned how to appreciate everything around me, and the importance of just staying positive. Which I believe is a major contributor to being happy when all you do is appreciate the world around you. If you stay positive, your thoughts will lead to feelings, which control your emotions, which control your actions, which ends up making you who you are, and how other people see you. Giving yourself a mental enhancement from the placebo effect, just by believing you are doing the right thing, truly helps with your body making minor improvements.

After truly analyzing what I wanted in life, I learned to appreciate the small things in life and I think it's important for everyone else to figure out the purpose in life while they are still young, and learn what makes you happy, so you wake up and spend the rest of your life chasing it. Lastly, the judgment we place on yourself is always more harsh than the thoughts anyone else will make about you. We are all stuck in our own little world, and to be honest, not many people really notice what you look like or do. They will only notice you if you go and talk to them. So many people are unaware of their surroundings and only focused on themselves, just trying to figure out their own life. I believe that there are few people too selfish in this world to scold you for talking to them if all you did was ask for advice.

I had to go through hardships to figure out why health is so important. I spent time creating this because I wanted to share the knowledge and put it to use. I don't believe it's fair to let people live their whole life and continue to make mistakes, when it could be taught once.

Since everything we eat, and do, contributes to the overall health of our mindset.

Healthiness is a way of life, the thoughts in the mind are reflections of the quality of life
“you are choosing to live”

We try so hard to find enjoyment in life through the pleasure of food.

We try so hard to make sure we have options and enjoy eating

We try so hard to get joy from eating,

Quality of life is with the people you are around, and if you eat healthy, you are more likely to be happy, calm, peaceful, grateful, appreciative, nice, and people will want to spend more time around you.

Isn't relationship building what we've always wanted anyways... like isn't that why we are trying to lose weight? So that other people will like us?

Eat food that makes you feel energetic and productive

You have to be doing something you enjoy and not get caught up in the rat race of working and coming home to sit around and spend time on our phone or watch television. I don't think there can be a quality of life from grinding all week long at work to looking forward to a weekend where you still just sit around. I think if we had the energy we would stay productive even after work and find hobbies to do in our free time so life didn't get boring and repetitive. Our phones should be used just to stay in contact with friends and use the internet to listen or read to try and learn. Life is boring if you are not always learning.

Of all the things you can do in your free time, expanding your mind needs to be the top priority. Your mind and knowledge will take you further in life than any physical activity. Without continuously educating your mind you would not have the willpower to go to the gym, and you would not have the ability to leave an impact in this world, and find happiness because you would only have the ability to work with your current knowledge and not explore or learn new skills to improve yourself. That seems to be the way many people end up, as they get stuck in their daily routine and never learn something new so that they can apply that to their daily life.

If you're always putting up with a miserable feeling in your stomach then you are going to be more likely to settle in life for things that aren't perfect because you already have so much misery that you just think it's a part of life, well it doesn't have to be

Your job is to make sure they are the right fit for you, and not wasting your time settling for

That you dream of reaching one day.

Social media may be the cause of our self doubt as we get convinced to xyz

The idea that many cut out foods and wonder why our diet is failing us is ridiculous. Social media teaches people to cut out foods when the body is already struggling looking for nutrients. Yet we keep restricting ourselves from eating fats or carbs because of misguided beliefs. Claiming they only provide energy, with no nutritional value, but this isn't true. The purpose of these nutrients goes so much more in depth than that. Every food group is important.

Even eliminating one food group will cause an imbalance in your satiety signals causing you to overeat. So, although any elimination diet will work short term, not a single one will be sufficient for long term results, because the only way to achieve a long-term goal is to have a sustainable strategy.

So you can spend as much time as you want looking for tricks and hacks, but the truth is that knowledge is useless without the ability to adapt when schedule and process fails. Then you have to know how to adapt and implement an alternative solution to maintain control over your greed, while continuing to be practical and reasonable, with your true preferences.

Someday you will be put under pressure and your decision-making process has to be relevant and adaptable, otherwise your physiology, and psychology, will override your long term goals, and your willpower will lose to your desires.

There is no ingredient, or food that is inherently bad, as long as you eat it in moderation, like once a week, however we aren't limiting ourself to this little of an amount.

You're not going to live a better quality of life by quickly trying to get shredded

A big problem I have seen is how popular the topic of nutrition has been getting, and how many misleading facts there are out there. So if you are uninformed and given false information, then how are you supposed to know to filter it out? Well, the foundation of this book is built around the fact that nutrition and fitness is all about getting back to the basics. I'm tired of seeing other people giving advice when they aren't even qualified.

I'm tired of people questioning the "calories in vs. calories out" debate. I want to end the controversy, by sharing and explaining the reasons whole foods are so important

Many of us do tend to start a diet because we think it is a quick fix to weight loss. However any weight loss hack is usually advice based on ignorance, where people are uninformed of the outcome. The weight may drop off quick, but the consequences are poor overall health, or relapses of weight gain. The hacks for weight loss can work short term however it makes the long term progress of managing your weight more difficult. Once you get to your goal, the ability to maintain it is the most important part and can become the real struggle. put in order yet.

You are creating your own barriers by purposely talking yourself out of it!

self-doubt.

and the xyz of experiences we would have to xyz

, but something in our mind says this is going to be hard to do, as our mind races with unfavorable scenarios, we digress, and decide to find peace in our current lifestyle

in front of you!

The hunger signal is too strong to ignore, and the brain is designed to look for problems, threats, risks, rewards, and new opportunities.

We can't ignore the most attention-grabbing details in front of us. If it's a giant object, our brain is going to orient itself towards that, and ignore the small insignificant details that don't matter. There is a reason its called "attention-grabbing" because that is exactly what its doing, and

there is no way to look around it, and no way to look past it, because we have to eat every single day.

. Its right in your field of view and stands out.

The brain is designed to obsess with what is wrong. It's designed to look for threats.

Yet this threat is our belief system. Life is not that hard. Nothing in life is too difficult to handle. Yet, something in our mind tells us to stop the rapid irrational thinking and find peace.

All a brain is designed to do is seek out threats, rewards, and new opportunities, but after years of experiencing new things, we eventually run out of original and unfamiliar details to explore. There's no escaping that. We cant overlook the biggest things in the room.

because our brain does not want to remember that moment of nothing, there was nothing beneficial there to remember.

Only then will you start to see how society is driven by commercialization, gradually taking away personal choice and individuality. Generalizing our behaviors, steering us towards a focus on consumerism, convenience, materialism, and isolation. Watching this lack of control to others around you can be demotivating, as it highlights our own limitations in pursuing our old dreams.

This is where the quality of life really starts to go donw hill, as all you can think about is the most basic needs. Its like when you're sick, all you can think about is how much your body and head hurt

We all have such high hopes to live life a certain way, but when all you can think about is food, all your other wishes...

Then the negative consequences start creeping up, including emotional or physical insufficiencies, represented in your daily experience as weakness, tiredness, moodiness, anxiety, stress, illness, and lack of functionality. Sometimes its unnoticeable, and unexpected, but someday it will happen, unless you take preventive steps.

Going maybe 200 even 500 calories over your maintenance for the day is much better than losing it all and binging out that day and going 1000s of calories over where you seriously start to gain weight

Even if you did overeat today, as long as it is on whole foods, then tomorrow you are not going to be as hungry, so you'll automatically and unintentionally eat less

It's hard to think about your passions when all you can think about is food, and how much you're struggling

The mindset is a never ending pursuit, and is too precious, for us to waste it on old insecurities.

Everything you do connects back to your level of confidence.

I want to take the idea of eating and ingrain the mindset of effortless consistency, because I want each of us to streamline the process of choosing what to eat and make it

our eating behaviors and find a way to redistribute all that time into other things we care about.

I want to make the process of choosing what to eat straightforward and uncomplicated

I want us to make healthy decisions without hesitation and

Eliminate the need for impulsive desires

By eliminating foods that encourage unhealthy thinking

And give reminders to stay patient, calm, established, and don't be lured,

Shifting our mindset back to the traditional ideology, searching for a quality of life through simple decisions. Choosing to do the right thing not because it has a positive impact, but rather because you know it's the right thing to do. Knowing that by doing it, you will feel good about your decision regardless if others around you think the same thing.

Choosing to do things the "right way" naturally boosts your self-esteem and reinforces your self-discipline. This practice builds confidence because it reflects a commitment to personal values and ethics. Ultimately, feeling good about the choices we make safeguards us from the constant temptations and societal pressures. Which is a skill we could all improve.

Keeping your choices minimal and stop trying to find the newest pleasure

Although you can lose weight on a high sugar or processed food diet, it is going to make you feel a lot hungrier, and it is going to be a lot more difficult.

You can forget about eating

When you have been eating only whole foods for a while, you don't even crave the processed foods and desserts, they don't even seem to like food anymore, it would be like comparing it to a rock, you don't have any desire to eat it. You don't even feel like you are depriving yourself, you just aren't interested.

then reach a stopping point where you feel like you can get up and go for a jog right after you finish eating.

Malnutrition affects more than just starving people. Anyone living on a processed food diet, is also suffering from undernourishment, and that is why governments get so involved, but our societies relationship with food is falling apart.

Prioritizing health will fill you up faster and make eating more sustainable, intuitive, less wasteful, because we will have a healthier relationship with our appetite, and desire for whole foods that nourish us, rather than the processed foods that make us binge, illness vulnerability, cravings, and dissatisfaction.

Suffering applies to anyone who binges on processed food, has a temper, is easily irritable, or low energy, unmotivated.

Time and motivation and quality of life are stolen and taken away

and it was surprising how one solid meal was enough to make me feel content. I just had to stop using low calorie foods to fill me up, because they clearly weren't.

Picking low calorie is usually associated with counting calories

I used to be so afraid of overeating because i felt like i didn't know how to stop.

Thats why intuitive xyz is so critical

Just fit your favorite foods into your daily plan, and allow it to help you get through your day, rather than be a distraction that hurts you.

Disclaimer is that this book is not 100% science based or backed

- There are plenty of personal anecdotes and opinions

Recap

You have to have protein to build muscle, and protein takes more energy than anything else to digest. You can't cut any nutrient out, not even micronutrients, if you want a long and mentally balanced life. Processed carbs are the enemy, and fats also need to be limited. Fats and protein are your main nutrients for satiation, and if you consistently workout, you need carbs for energy, and an efficient workout,

- Articles, research, and quotes by Rhonda Byrne, Eszter Brhlik, Leukemia and Lymphoma Society, Pearlpoint Nutrition Society, Cancer Treatments Center of America, Hippocrates, Medline plus, Pubmed Central, Department of Biochemistry and Molecular Biology, University of British Columbia, Proud CG, Yves Schutz, Department of Physiology, University of Lausanne, George A Bray, Steven R Smith, Lilian de Jonge, Hui Xie, Jennifer Rood, Corby K Martin, Marlene Most, Courtney Brock, Susan Mancuso, Leanne M Redman, Pennington Biomedical Research Center, M J Franz, International Diabetes Center, Minneapolis, Peter M Clifton, Jennifer Keogh, CSIRO Human Nutrition, Dominik H Pesta and Varman T Samuel, Zephyros Kafkalides, Maria Léa Corrêa Leite, Researcher of the Institute of Biomedical Technologies, National Research Council, Segrate, Italy, J Rodin, Andrew M Wilson, Asthma and Allergy Research Group, Department of Clinical Pharmacology and Therapeutics, Ninewells Hospital and Medical School, University of Dundee, Van T Pham, Susanne Dold, Ateequr Rehman, Julia K Bird, Robert E Steinert, DSM Nutritional Products, D J Betteridge, Department of Medicine, Sir Jules Thorn Institute, The Middlesex Hospital, London, UK, Robert M Cox, Department of Biology, University of Virginia, M Wittner 1, A Di Stefano, P Wangemann, R Greger, Institut de Recherche Fondamentale, Centre d'Etudes Nucléaires de Saclay, Gif-sur-Yvette, France, Pflugers Arch, National library of Medicine, American Society of Hematology, Derrick Lung, MD, MPH, FACEP, FACMT, John Hopkins Medicine, Healthline, Amber Charles Alexis, MSPH, RDN, Ann Pietrangelo, Deborah Weatherspoon, Hilary I. Lebow, Zohra Ashpari and Rachael Ajmera, MS, RD, Ryan Raman, MS, RD, Katey Davidson, MScFN, RD, CPT and Alina Petre, MS, RD (NL), Ryan Raman, MS, RD, Franziska Spritzler, Jill Seladi-Schulman, PhD, Ashley Marcin, Mandy Ferreira, Kris Gunnars, BSc, Jillian Kubala, MS, RD, Erica Julson, MS, RDN, CLT, By Lizzie Streit, MS, RDN, LD, Helen West, RD, Harvard Health, Center of Disease control and intervention, Business insider, Harrison Jacobs, Joe Rogan, Dr. Rhonda Patrick, United Kingdom National Health Service, Everyday Health, Nigel Nicholson, Harvard T.H. Chan School of Health, Brooke Burns, Google, Quora, Steve Dutch, Rajesh Venkatesh, Sam Mahdi, Mark Werner, Aquatico Nitrosobivrio, Joe Redish, Wayne Bottlick, Sepsis Alliance, Mark Hyman MD, MindPump, Mark Newman, Peter Attia MD, Andrew Huberman, Eric Berg, Jeff Nippard, Robert Lustig, Betterhealth, Australian Institute of Sport, Sports Dietitians Australia, The HealthCentral Network, American Dietetic Association, Mayo clinic, Wildhealth, National Gaucher Foundation, American Institute for Cancer Research, Sciencedirect, Julia Dietler, ... Andreas Möglich, in Methods in Enzymology, S. Padmanabhan, ... Montserrat Elías-Arnanz, in Vitamins and Hormones, Hidetoshi Kassai, Yoshitaka Fukada, in The Enzymes, Guang Hu, Theodore G. Wensel, in Methods in Enzymology, Pierre-Damien Coureau, Ulrich K. Genick, in Methods in Enzymology, C.A. Briggs, M. Gopalakrishnan, in Comprehensive Medicinal Chemistry II, T.A. Simeone, J.M. Rho, in Encyclopedia of Basic Epilepsy

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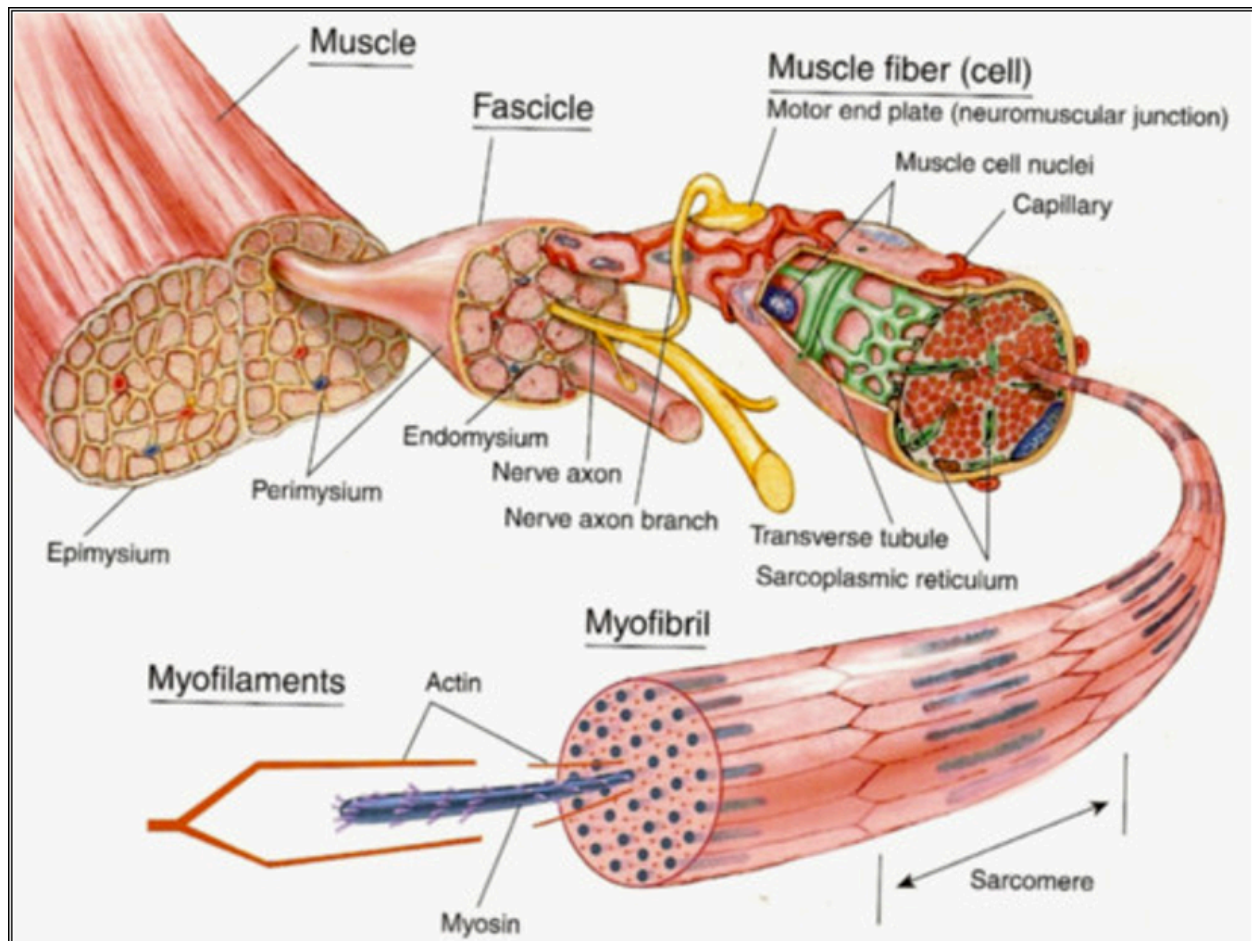
1. Eat healthy and you can eat more, feel more satisfied, have more energy, and still maintain your weight
2. We have trouble maintaining our weight because we are not in tune with our body, if we would just simply listen to our hunger cues, eat foods closest to their most natural state, and stop eating when we are full, then we can eat more volume than you might think
3. We can solve this problem of false hunger signals by eating whole food, which allow your hormones to be in line with your true hunger
4. Whole food have vitamins minerals and help our body function
5. If you eat only whole foods you body will function normally
6. We will be satisfied for longer
7. We are eating processed foods and not allowing our hormones to correlate to the brain efficiently
8. The processed foods we are eating are messing up our hormones
9. We are above calorie needs by the time we get to our satiety signal and continually overeat
10. We continue to gain weight from these added sugars and overly processed foods
11. Our body is not as efficient as you think
12. Where are all of our calories going
13. Why would healthy foods cause our body to absorb less
14. We can also be satisfied by protein and fiber

15. The bacteria in our food help us
16. The bacteria can only function with fiber and artificial foods harm them
17. Processed foods mess with our normal function to the point where we can develop disease
18. Our diets are messed up because we cant listen to our body
19. Instead of fixing our diet through lifestyle changes, many of us just go through harsh diets which have consequences
20. Finally able to listen to our body and stop eating when we are full
21. Our body is designed by god and created our function

Are you afraid to lose weight?

I don't care about ____.

When it comes to , there is only one right answer.



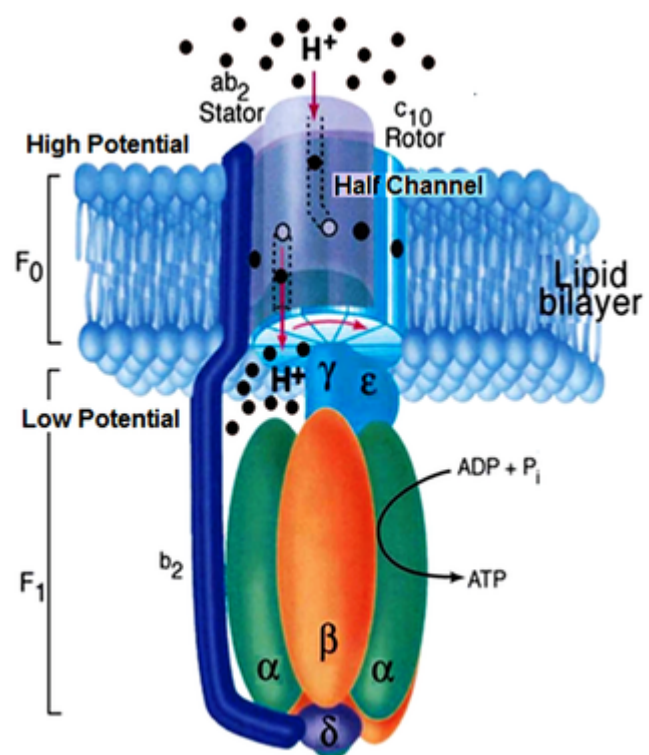
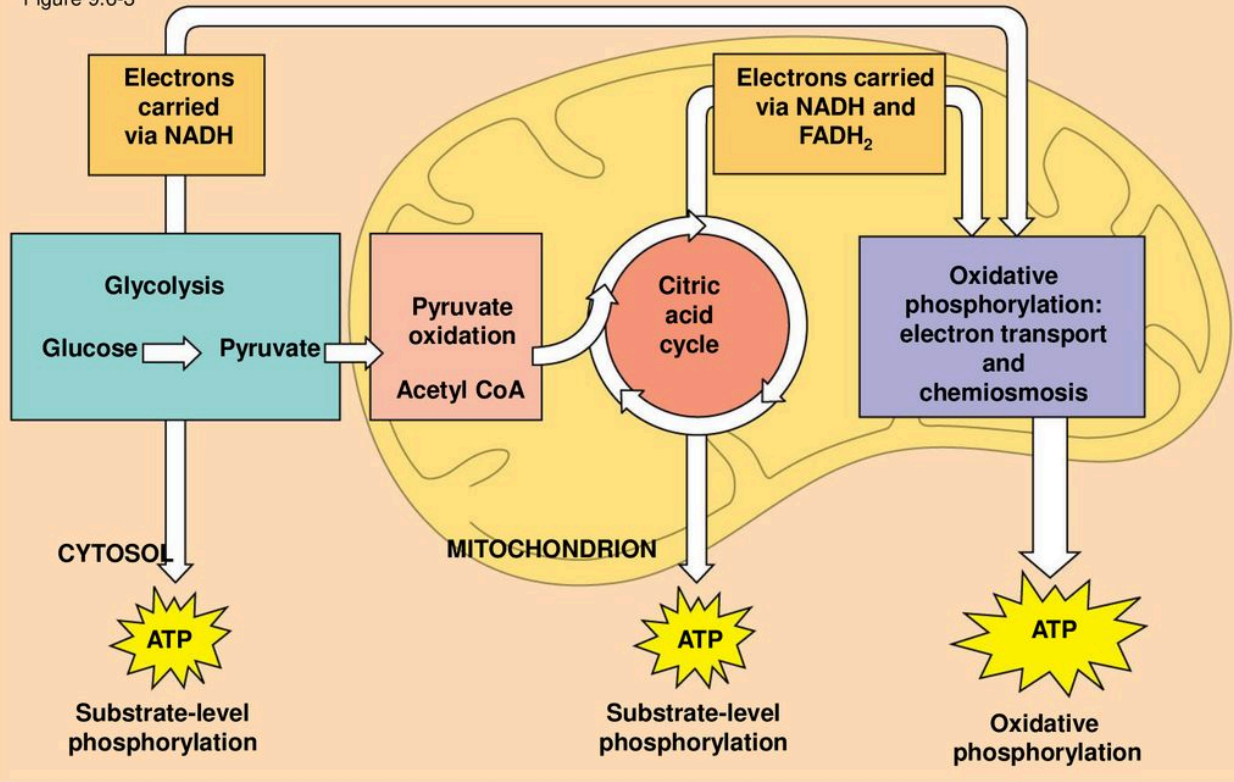
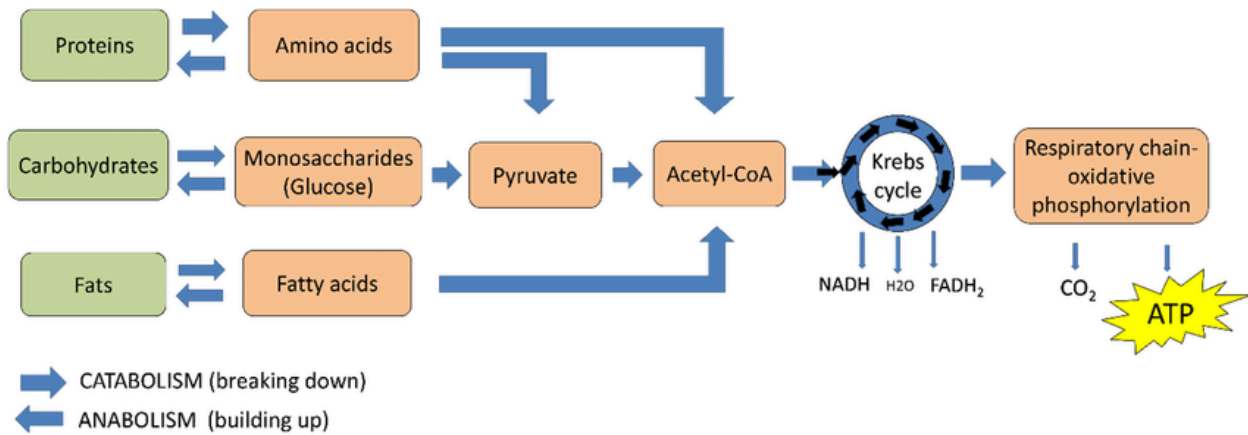
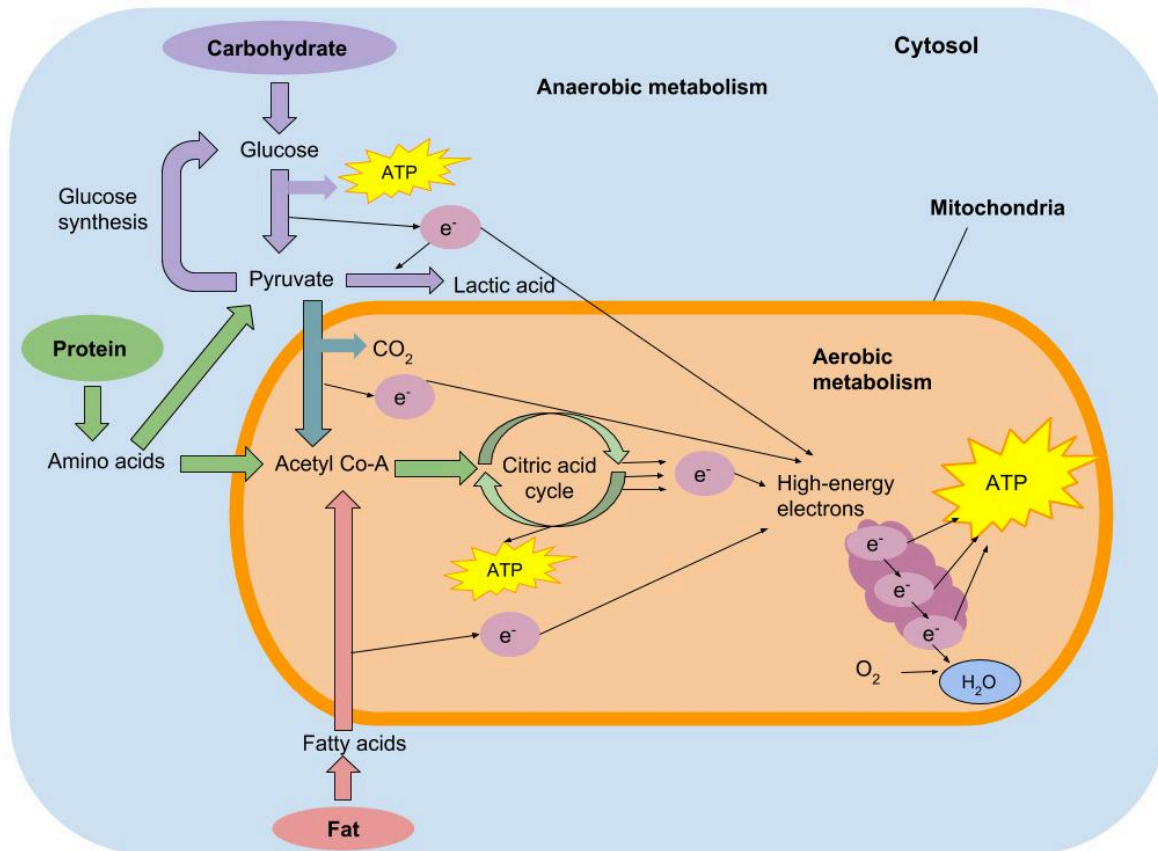


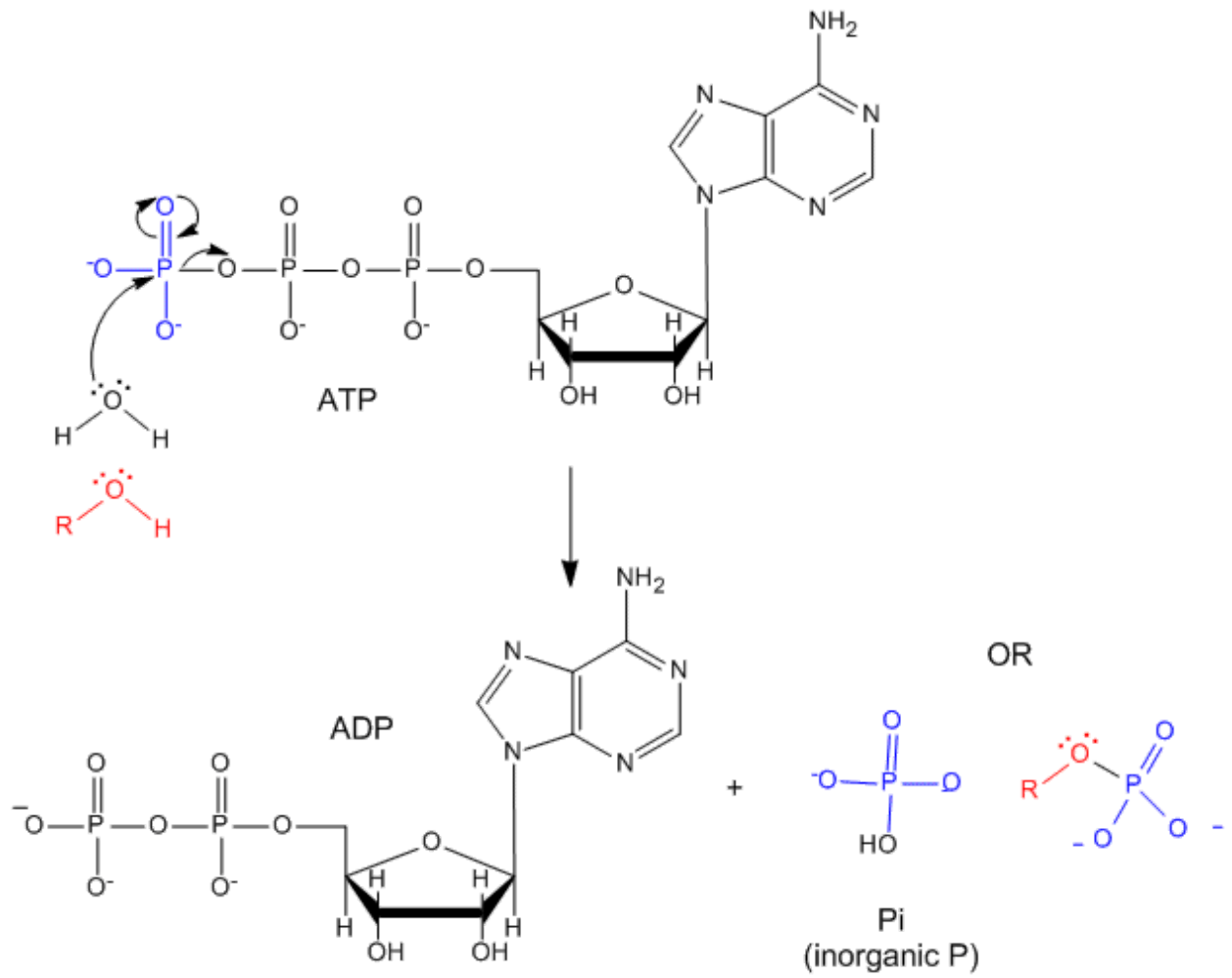
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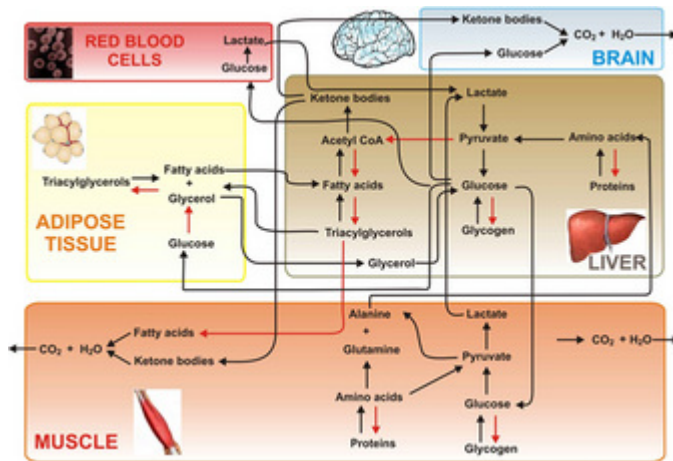
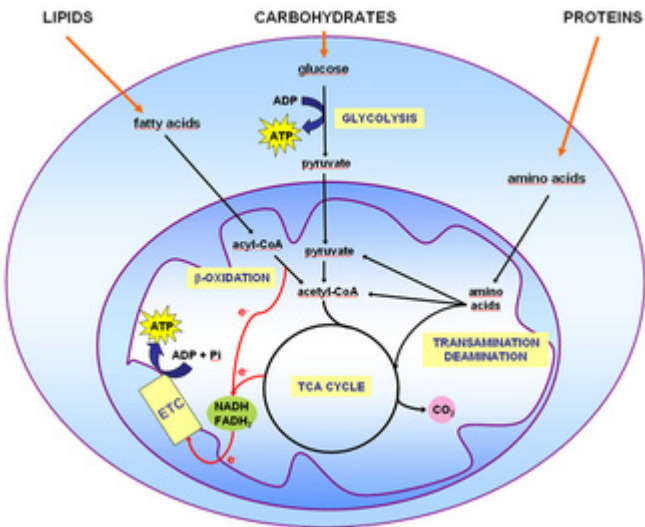


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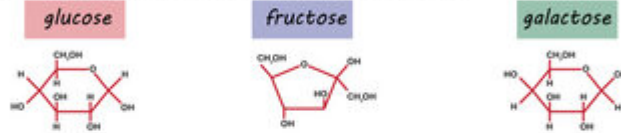




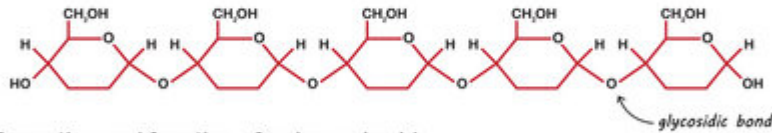


Carbohydrate

- Carbohydrate is polymer, made from monosaccharide



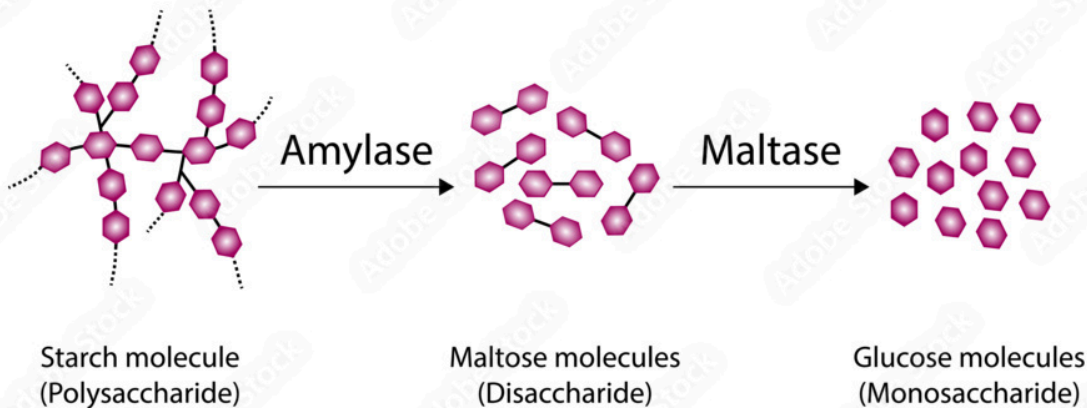
- Monosaccharide link together by condensation to form polysaccharide



- Formation and function of polysaccharide

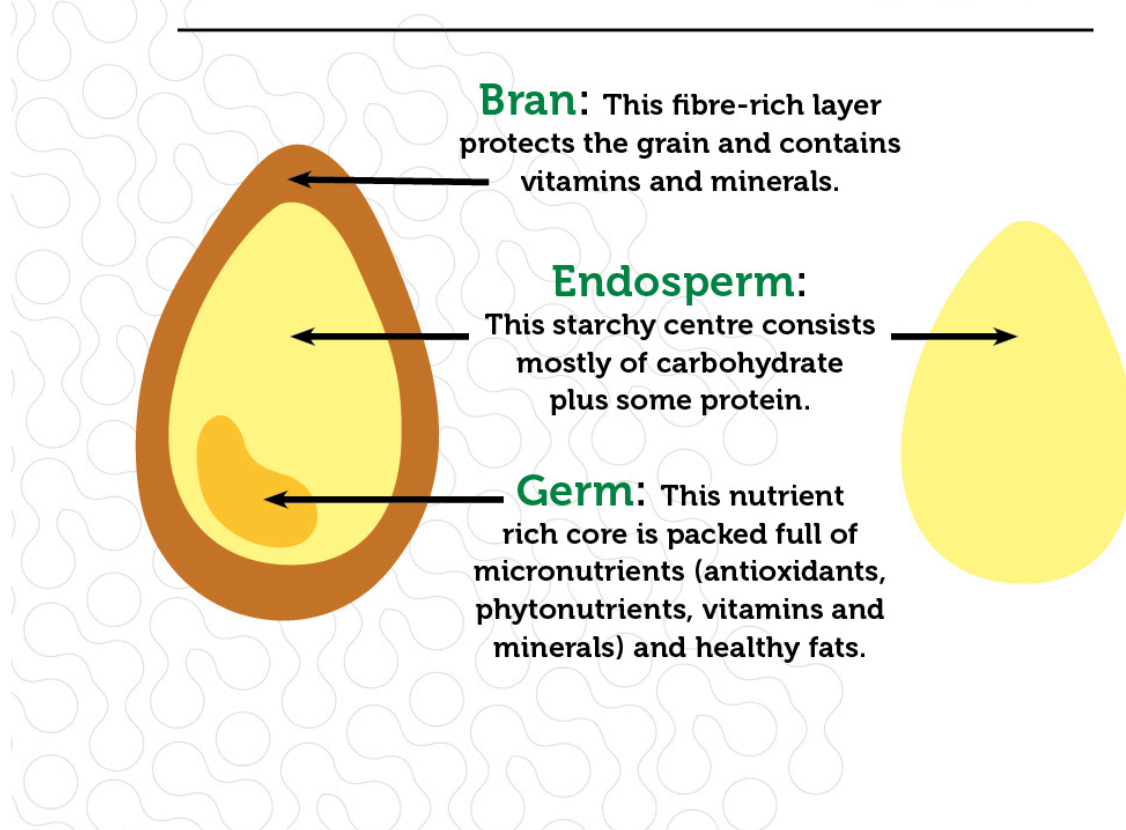


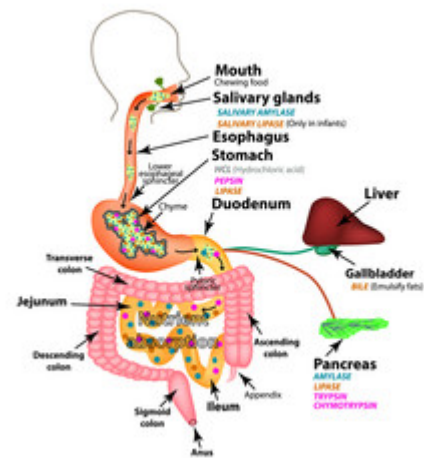
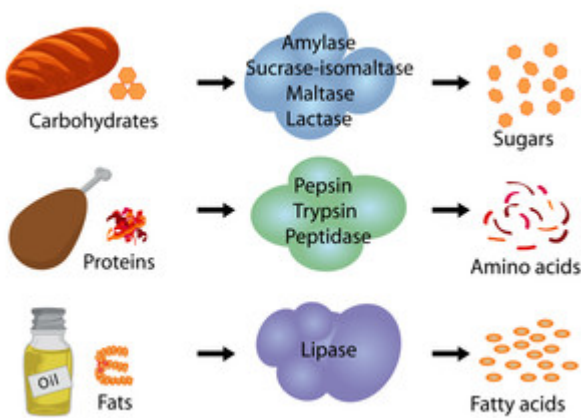
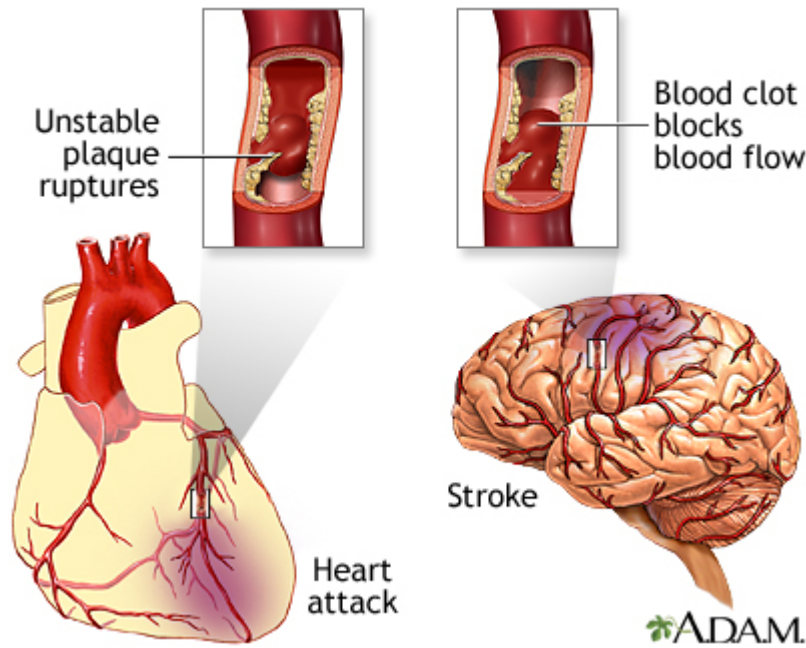
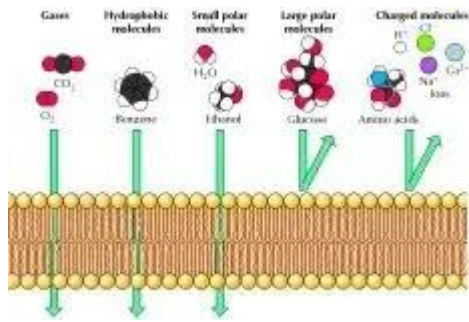
Carbohydrates Digestion





Wholegrain **VS** Processed Grain





DIGESTION

(dissolution, absorption, fermentation)

