

Masterdoc

Note: Currently, this is a loose set of notes. It is not meant to make sense to anybody other than me. Any sense these notes make to you are entirely coincidental and unintentional.

Preamble/context:

I've been taking a long time to write my ebook INTROSPECT, and from a certain angle it seems kind of weird how long I've been taking. But from another angle, I kind of get it. There are parts of me that subconsciously are uneasy with the book, but take quite a while to articulate why.

The first major worry I had was that the book might guide people to painful places, and not be successful in guiding them out – ie, harm people more than it helps.

The second was that the book might unintentionally encourage people to go on unproductive paths, such that they wouldn't just waste the time they spend reading it, but that they might spend significant time after reading it in wasteful and unhealthy pursuits. You could say that this is a remix of the first major worry.

*The third worry, I just realized, is that the book might be overly cerebral. All books are, to some degree, but I feel like a book about introspection is jarringly incomplete without talking about the body. And I am far from any sort of authority when it comes to talking about the body. **I'm a complete layperson with minimal understanding, perhaps a worse-than-useless understanding.** Nevertheless, I feel like I should make an attempt.*

Meta:

Working on this post is teaching me something about information architecture. Which is something I think I was familiar with before, but hadn't quite put together in this way. It's the power of writing letters.

Some notes on the body

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## ***The breath***

[\(blogpost about breathwork\)](#)

Let's start with the simplest things. The simplest thing about the body, I believe, is the breath. We all breathe, we do it in our sleep, and we die within minutes if we don't. Yet I never really spent much time studying the breath, trying to understand it, until probably my late 20s. I did maybe experiment lightly with the most simplistic of pop meditation practices ("take a deep breath"), but none of it ever stuck for me – until somebody introduced me to box breathing.

Box breathing is a really simple thing, and the word "box" refers to the shape of the count. You inhale slowly for 4 seconds, hold your breath for 4 seconds, exhale slowly for 4 seconds, and hold again for 4 seconds, and repeat. This practice is allegedly endorsed by Navy SEALs as a method of stress reduction.

*“It works on the principle that slowing down your breathing helps you to relax, increases your oxygen intake, releases tension, and stimulates the vagus nerve, which is the longest nerve in your body and starts in the brain. One of its main functions is to slow the sympathetic stress response.” – Erin Brunch, (wellandgood.com)*

There are a bunch of bad things that happen if your breath is not quite right, and a bunch of good things that can happen if you take some time to deliberately breathe. The metaphor I use for myself is, it's like tuning your guitar. As you play a guitar, it often tends to go slightly out of tune. This makes it sound slightly “off”, in a way that isn't always obvious. It just starts to feel less satisfying, the chords don't quite ring right.

## Hyperventilation

I only recently discovered that I never actually understood what hyperventilation is.

My original, vague, instinctive model was something like, “you're panicking -> breathing too fast -> (?) not enough oxygen?? -> bad??”

But the problem seems to be something closer to “exhaling too much -> not enough CO₂ -> bad”?

Here is my makeshift understanding:

When you inhale normally, you take in oxygen into your lungs, and it enters your bloodstream. But for this oxygen to go from your blood to your cells, there's a “trade” process. Oxygen is traded for CO₂.

When you exhale too much too quickly, your blood might be full of oxygen, but that oxygen doesn't make it into your cells- because there's not enough CO₂!

*“Excessive breathing reduces the level of carbon dioxide in your cells, and your cells eventually have little or no carbon dioxide molecules left to trade for the available oxygen (O₂) molecules. If your cells have nothing to trade, then they can't do business in the metabolic marketplace. The lower your cellular CO₂ gets, the less oxygen you are able to purchase. Your blood may be bright scarlet because of all the oxygen bound to your red blood cells, but you will be unable to absorb that oxygen because your cells have no CO₂ left to exchange for it.” – [Is Holding Your Breath Good For You?](#)*

So the reason that “breathe into a paper bag” works as a remedy for hyperventilation symptoms is that you're *recycling the CO₂*. It seems like you can also achieve this by holding your breath for a few seconds between inhales and exhales – which is what Box Breathing is about.

I now have a few months worth of sporadic experience practicing “box breathing” – still somewhat too early to be too confident about any findings - but it has calmed me down tremendously in a way that “regular deep breaths” never did. The “secret” seems to be in the holds between breaths.

*“Holding your breath allows CO2 to increase, and CO2 dilates blood vessels throughout the body. As a result, it lowers your blood pressure and induces a profound state of relaxation.”*

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aging slows down respiration – lung capacity lessens, chest muscles weaker. "Exercise helps keep your lungs in good shape by making them work harder"

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““There is often a close relationship between emotion and physical sensation. Physical sensations in the body often co-occur with feelings. Moreover, sensations of tightness and tension can develop as a defense against feelings. As unexpressed feelings accumulate, a greater degree of muscular tension is necessary to keep them under wraps. A child who is repeatedly punished for emoting learns to be afraid of inner emotional experience and tightens [armors] the musculature of her body in an effort to hold feelings in and to banish them from awareness. Holding your breath is a further manifestation of armoring. It is an especially common way of keeping feelings at bay, as breathing naturally brings your awareness down to the level of feeling.” Pete Walker, cPTSD

Aella asks about lung capacity [https://twitter.com/Aella_Girl/status/1528274078762643456](https://twitter.com/Aella_Girl/status/1528274078762643456)

## **Water**

The body needs water to function. You’d have heard the cliches, you can look up the specifics yourself. If you’re dehydrated, you get dizzy and lightheaded, it becomes harder to think clearly. The “drink 8 glasses of water a day” meme has allegedly been disproven – most of the water content that you need likely comes from the food you eat.

Nevertheless, I think it’s worth drinking a glass of water in the morning when you wake up, and to just periodically consider if you would like a glass of water from time to time. After you pee seems like a pretty good time to rehydrate. This of course will vary from person to person depending on the sort of lifestyle you have – a person who is working physical labor outdoors is going to need a lot more water than someone who’s sedentary behind a desk.

## **Diet**

There is a truth to the old adage “you are what you eat”. In my personal experience I’ve found that eating carbs (rice, pasta, noodles, potatoes) tends to make me sleepy and groggy, sometimes in an inhibiting way. I would say, generally speaking, make a note of how you feel after everything you eat. Different people may have different reactions or responses, different allergies and so on. The wrong meal at the wrong time can totally wreck my plans for a day. This is something that is avoidable with a little bit of planning and strategizing.

### **Picky eater**

I used to be a much pickier eater as a kid, and I also generally had a poor appetite, which I think was related to my chronic anxiety about school. Which would create this terrible spiral where I wasn’t eating enough, so I was always light-headed, and it also probably affected my sleep. I was sleeping poorly, my breathing must’ve been shallow. I think I picked up cigarette smoking in part to deal with this. Which is sort of a devil’s bargain.

I’m moderately certain that I used to have a much more volatile blood sugar situation, which led to bad “crashes” where I would space out, get light-headed, become completely unproductive, and typically make really bad decisions. I’d almost have an out-of-body experience, in a bad way. In retrospect, it’s weird that I never really stopped to analyze those experiences. Better late than never.

### **Teaching myself to cook**

A great thing I did for myself in my mid-20s was teach myself to cook. Prior to that I had a very adversarial relationship with food. I kind of resented the fact that I had to eat, and wish it weren’t necessary. My “favorite” foods were Fish & Chips, and McDonald’s, largely I think because they consisted of simple, discrete elements that were easy to understand. My family is Tamil, so our home cooked food was South Indian, and personally, at the time, it grossed me out. It just seemed overly complex, I didn’t understand it. And I somehow was never able to have a conversation with my family members about it. My siblings would mock me for my eating habits, and I would be ashamed of it. I haven’t had a conversation with them about *that*, either. Maybe I should some day. Though I don’t know if it’ll lead to anything meaningful. My family members have a “tough love” attitude. Anyway.

### **Insulin**

The following is a remix of a post by /u/BigBlueBawls, answering the question “[Why do we wake up starving the morning after a night of binge eating?](#)”

Your body needs glucose for energy. Everything you eat is broken down into glucose.

“Sugary” foods like rice, bread, pasta are digested very fast, and thus broken down and turned into glucose very fast.

So when you eat lots of sugary foods, a lot of glucose goes into your blood very fast.

The pancreas produces little hormones called insulins, which “push glucose into your cells”. (how?)

When there’s a lot of glucose going into your blood very fast, the pancreas freaks out. “OMG! Too much glucose in the blood! Poison! Go insulin, push them into the muscle and fat cells to properly store them!”

When too much insulin is produced, the glucose is pushed from the blood to the cells, leaving very low levels of glucose in the blood. So the body thinks “hey, my blood needs glucose. Feed me.” And you feel hungry.

“So what happens when you have very high insulin? Are you always hungry?”

Hungry and you’re fat and getting fatter. Besides storing excess blood sugar as fat, insulin also prevents burning of currently stored fat as fuel. The insulin tells your body to stop burning what you have stored because a new shipment of glucose is arriving and needs to be stored ASAP.

As the years pass, and you keep flooding your body with insulin all the time, the insulin receptors in your fat request more insulin, because your insulin resistance increases. This is one of the reasons people who are lean in their early 20s get fatter as they close in on the 30s.

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Insulin lowers blood sugar levels. A nurse in Canada murdered 8 of the people in her care by injecting so much insulin that they died of hypoglycemia.

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People with type 1 diabetes cannot make insulin because the beta cells in their pancreas are damaged or destroyed. Therefore, these people will need insulin injections to allow their body to process glucose and avoid complications from hyperglycemia

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Glucose and the brain: the brain uses glucose like mad for deep thinking. efficient use of glycogen is as important as availability. 100mg (or more, much more) of B1 (thiamine) helps the efficient use, and many ppl are deficient despite normal plasma levels. you could also take B6 (pyridoxine) with it,

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## Cravings for junk food

Sleep deprivation can cause increase in overall hunger, which can lead to cravings of sugar, fat or both.

“Especially when we’re stressed, junk food often soothes us with the least amount of fuss and effort. We look for sugary and fatty foods to make us feel good.” – dietitian Beth Czerwony (ok but why?)

Facts:

Chronic hypoglycemia – low blood sugar leads to bad sleep. Brain worries that it won’t have enough fuel, so it doesn’t let you sleep. It’s literally afraid you’ll go into a coma. The brain needs sugar to function.

## **Cigarettes**

Ok first of all, public health advisory: smoking is bad, it’ll increase your odds of cancer, it’ll give you shortness of breath, it stinks, it’s costly, etc. If you don’t smoke, you probably shouldn’t pick it up. It’s an irresponsible thing to do, it can be very sticky.

That said. Cigarettes did help me throughout my late teens and throughout my 20s, and I feel like the popular concept and understanding of cigarettes is very limited.

### **Some interesting facts about cigarettes:**

People with schizophrenia are much likelier – 3 times likelier – to smoke cigarettes. “Scientists believe that nicotine, the addicting substance in tobacco, may represent a form of self-medication, normalizing some central nervous system deficits involved in the disorder” – ([brainfacts.org](http://brainfacts.org))

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Nicotine affects blood glucose

People who smoke are 30-40% likelier to get type 2 diabetes – body becomes resistant to insulin, which is produced by the pancreas

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There's some medical mystery where a guy's cigarette smoking [staved off his genetic anemia](#)

~

Effects of nicotine on sleep during consumption, withdrawal and replacement therapy (<https://pubmed.ncbi.nlm.nih.gov/19345124/>) – "In summary, depressive non-smokers experienced an **improvement of mood under nicotine administration comparable to the effect of anti-depressants**. The most consistent finding was an increased REM sleep during nicotine therapy maintained over several months."

## **Caffeine**

I only really started getting into the habit of drinking coffee when I started working, at age 22. Well – I did also drink coffee when I was in the army, and I can't quite remember how consistent I was about that... pretty consistent, I think. Let's say 20. So I've been drinking coffee for 10 years. I'm writing this now after going off coffee for about 3 days. I felt compelled to do that because I was starting to feel really burnt out. From working on my book.

## **Strength training**

I want to start with a simple anecdote that was very powerful for me: **squatting 90kg, which was more than my bodyweight at the time, completely changed my life.**

All my life I've been really tall and skinny, and I was particularly ashamed of my skinny, chicken legs. I would always wear jeans or pants in sunny, humid Singapore, because I was anxious about people noticing and making fun of my legs. I was charming and charismatic enough as a teenager to be able to laugh it off on the surface, but inwardly at some level I used to think it was something of a weakness, or a failure on my part. I think representation could've helped – I was in my late 20s when I discovered Stromae, the Belgian musician, who has a body type similar to mine: tall, spindly. And simply seeing him conduct himself with confidence in his body I think released a lot of tension and anxiety in my own body. (Part of the problem is that it's very

hard to find clothes that fit me, as a tall skinny man in a relatively short Asian country. Knowing what I know now, if one of my nephews grows up to be unusually tall, I would happily spend the money to get them well-fitting, tailored clothes.)

Oh yeah, anyway. Again, part of the shame of being tall and skinny meant that I didn't feel comfortable going to the gym to do squats with weights, because I would have to share the squat rack with other people, and I would likely have had to go through the tedious process of adjusting the height of the rack between every set. So I did what any sane person would do and *I bought my own squat rack*. It cost me all of my savings, but at some point I was that desperate to break through the limiting belief that I had. I just couldn't keep going on with this anchor in my mind weighing me down, about my legs. And so I got a squat rack, and I started squatting. And initially it was embarrassing, I could barely squat as much as I could bench. Meaning my legs and ass were weaker than my chest. But slowly and steadily, I kept at it, and eventually I did something that, as I type this out, almost seems a little unbelievable to me: I squatted 90kg, which was more than my bodyweight at the time.

I cannot overstate how that one experience, which took maybe 5-10 seconds to accomplish, completely changed my life in a deeply fundamental way. All my life I thought of myself as someone who was physically somewhat weak for a man. Not in an abject, horrible sense, but somewhere a little below average. I could do a bunch of pullups as a teenager, which I was proud of, but once I stopped growing taller, I started putting on more weight, and that became much harder to do. The *idea* that I would one day squat more than my bodyweight would've been inconceivable to me, from say ages 13-24. But at around 25, I did it. And that made me realize, in my bones and sinews, that all of my assumptions about what I can or cannot do must be similarly mistaken. There are things that I cannot do today, that I will be able to do tomorrow. This radically shifted my perspective on what it means to be alive, what it means to navigate reality as a human being.

## **Cardio**

I do find that there's a significant difference between aerobic fitness – going for a run, playing basketball, etc – and strength training, ie lifting weights. Well I basically only alternate between running and playing basketball. I seldom enjoy slow long jogs. My favorite way of running is to just run fast until I don't feel like running anymore, which I do in laps around my neighborhood park. I don't do this nearly as often as I'd probably enjoy.

### **What happens when you run**

Out of breath, pulse is high, heart pumps oxygenated blood into muscle  
Stomach breaks down energy, releases gas

Itching happens when blood flows into tiny unused capillaries, the swelling irritates nearby nerve endings

Muscles use ATP energy molecules

## **Stretching**

I never really cared much for stretching as a kid. It seemed kind of trivial and unnecessary. And at the same time, I wasn't all that flexible. I don't think I could ever touch my toes without bending my knees – but I chalked this up to “tall guy problems” and didn't think twice about it.

About a year or two ago when I started doing breathwork, I noticed that my hips were starting to get sore. I wasn't doing any other physical activity, so why were my hips sore?

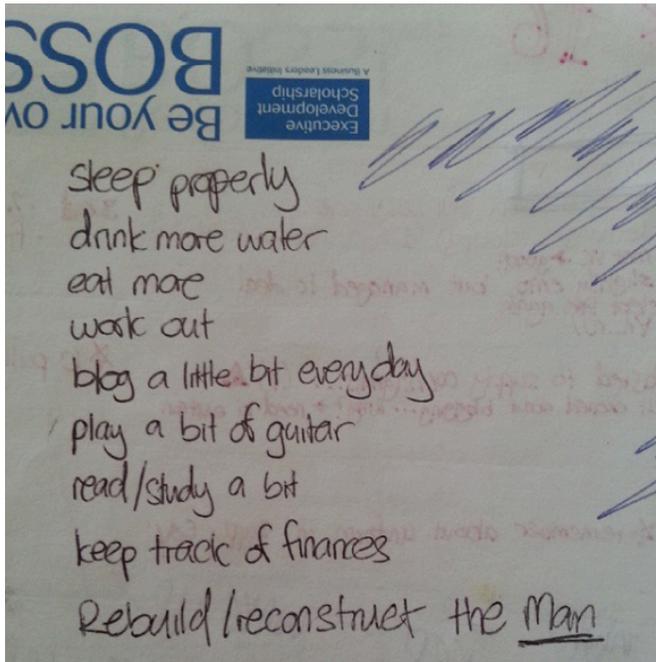
## **Posture**

Posture thread <https://twitter.com/PostureFixed/status/1232606152019439616>

## **Sleep**

My sleep has always been kind of erratic. Even when I was a child I think I used to see the nighttime as an exciting forbidden playground, which I initially used to read books, and then later on used to explore the Internet. When I was about 16 or 17, I would often stay up online until about 4am even on school days. I would go to bed, my mom would wake me up for school at about 6am, and I would sleep on the bus on the way to school. In retrospect that was such a horrid way to live, but I had never really stopped to think about it. I did occasionally have moments in which I would feel motivated and excited to try and improve my life.

The following is an old page from a journal I kept when I was 20 – the first item on the list is “sleep properly”. So I've always been aware that my sleep was something that I probably ought to get better at managing. But 10 years later, I would say that that's probably the thing I've made the least progress in. A part of me hoped that I would solve my sleep issues in the middle of working on this book – then I can be like, aha! Look! I introspected my way into fixing one of the hardest problems in my life! Unfortunately, I can't make that claim. Though I do think that it's part of the solution.



## Sleep deprivation

Via The Sleep Solution (book): Long known that increased body weight can cause poor sleep, largely related to breathing. Lots of studies, lots of proof. Numerous studies: <6hrs sleep + staying up past midnight = linked to obesity. 2015 study with over 1 million Chinese subjects, 2008 study on schoolchildren...

Sleep is related to almost everything – hypertension, heart attack, stroke, obese, diabetes, cancer, heart failure, migraine, atrial fibrillation, depression, bed-wetting, neurodegenerative disorders and memory disturbances like Alzheimer's disease

“Sleep is not simply the absence of wakefulness. It's not a light switch in your brain that's either on or off. Your body is doing amazing things at night while you sleep.”

“While virtually every system and organ of the body is in some way affected by sleep, sleep resides in the brain. Sleep is a neurological state.”

Night of bad sleep -> energy levels reduced -> people eat more to compensate (Lundahl and Nelson, 2015)

Poor sleep -> decreased impulse control -> greater risk-taking behaviors -> eating poorly (Killgore, 2006)

Bad sleep might be most damaging to the circulatory system. Increased risk of heart attack, elevated blood pressure, heart failure, stroke.

Most studies center around sleep apnea, but recent research shows that anything fragmenting sleep can potentially elevate blood pressure

Your sleep can influence whether you develop a funny heart rhythm and a massive blood clot in your leg. If you struggle to breathe at night, you'll compensate by breathing more forcefully. Forceful lungs put pressure on the heart. (This is kinda sad, it's like abusive household,)

The added pressure on the heart pushes fluids out of the blood vessels and into the tissue of our body. This is the mechanism behind leg swelling. When the heart has to work harder to pump the blood, it enlarges – which is the beginning of heart failure. (This is really sad to me.)

an interesting thing I don't think I properly disambiguated: sleepiness and wakefulness (vigilance, arousal) are *separate*.

If you're really sleepy AND really vigilant (eg anxious/stressed about your inability to sleep), your insomnia is not a lack of sleepiness

## The psychology of sleep

An interesting anecdote is that there are people who think they can't sleep, and they will tell their doctors "I can't sleep". But it's not technically possible for anybody not to sleep for more than a couple of days. So they're lying to themselves. People also do this with their diets, and with their fiances.

## The philosophy of rest

### **Gratitude**

A great riff from my friend Ms. G is that "gratitude feels amazing in the body". It does! If you Google around, you'll find a bunch of articles about how practicing gratitude has consistently great results.

*"In positive psychology research, gratitude is strongly and consistently associated with greater happiness. Gratitude helps people feel more positive emotions, relish good experiences, improve their health, deal with adversity, and build strong relationships."* – ([health.harvard.edu](http://health.harvard.edu))

## **Hormones**

I sometimes feel like hormones are the least understood part of the body

**Ghrelin**, the “hunger control hormone”, increases when you’re sleep deprived. Ghrelin is a hormone produced in your gut. Acts on brain to promote hunger, and may also play a role in the pleasure associated with eating. When sleep goes down, ghrelin production goes up, increasing the likelihood of overeating and obesity.

**Leptin**, produced by our fat cells, induces the feeling of fullness and puts the brakes on our appetite. When we sleep poorly, leptin levels are reduced, which makes us want to eat more (Hakim, 2015)

**Cortisol**, stress hormone, may increase, which may stimulate appetite

## **Stress (Cortisol)**

Going through my old photos - it's striking how much better I looked 2 months after leaving my job. I *wasn't* eating better, I was eating junk every day. I wasn't sleeping better, I was playing video games late into the night. I believe this is largely just lower cortisol levels



5:45 PM · Mar 12, 2020 · Twitter for iPhone

I literally ate worse, slept worse, didn't exercise, and yet I found myself looking and feeling more alert, and I even lost body fat and I feel like I even gained a bit of muscle mass.

## **Adrenal fatigue**

“- Lethargy and fatigue symptoms are a frequent result of worn-out adrenal glands. Because their hormones regulate the fueling of cells, and especially those of the brain, under-fueling results in low energy and a worn out feeling, sluggishness, trouble getting up in the morning, fatigue and lethargy. Depression is another effect that may occur to an individual with an under-fueled brain and nervous system.

- Our current lifestyles present great stresses on our adrenal glands. Physical, emotional, and nutritional stress leads to the overproduction of adrenaline which leads to a magnesium deficiency in the body.

- Overeating carbohydrates (sweet or starchy foods including sugar, breads, cereals, pasta, etc) will cause an insulin reaction. **Over-secreting insulin burns out the adrenal glands.** Not balancing food properly, overeating carbs, especially ones that arrive fast as sugar in the blood, is one factor that wears out adrenals.

- Your adrenal glands are also known as your "Stress Glands". Mental and emotional stress, worry, anxiety over love, money, family, any of the usual (or unusual) sources, will eventually fatigue the adrenals, and cripple their hormonal output. Physical or chemical stresses can also cause adrenal fatigue. Ongoing pain, nervous system stress and malfunction, stimulant drugs, caffeine, nicotine, and alcohol are all on the list of causes for adrenal burnout. Magnesium nutrition supports adrenal health and is known as the anti-stress mineral.”

## **CNS fatigue**

> CNS fatigue is a defense mechanism. It's your mind's way of saying, "You are exhausted, and up until this point you have refused to do anything about being exhausted. Therefore, I'm purposely shutting down your body so you'll be forced to rest."

## **Vagus Nerve**

Vagus nerve

<https://www.thecut.com/2019/05/i-now-suspect-the-vagus-nerve-is-the-key-to-well-being.html>

- I kept coming across it in relation to deep breathing and mental calmness: “Breathing deeply,” Katie Brindle writes in her new book [__Yang Sheng: The Art of Chinese Self-Healing__](#), “immediately relaxes the body because it stimulates the vagus nerve, which runs from the neck to the abdomen and is in charge of turning off the ‘fight or flight’ reflex.” Also: “Stimulating the vagus nerve,” per [a recent Harvard Health blog post](#), “activates your relaxation response, reducing your heart rate and blood pressure.” And: Deep breathing “turns on the vagus nerve enough that it acts as a brake on the stress response,” as an integrative medicine researcher [told the Cut](#) last year.

- In reality, the vagus nerve is a squiggly, shaggy, branching nerve connecting most of the major organs between the brain and colon, like a system of roots or cables. It is the longest nerve in the body, and technically it comes as a pair of two vagus nerves, one for the right side of the body and one for the left. It's called "vagus" because it wanders, like a vagrant, among the organs. The vagus nerve has been described as "largely responsible for the mind-body connection," for its role as a mediator between thinking and feeling, and I'm tempted to think of it as something like a physical manifestation of the soul. Also: "When people say 'trust your gut,'" as one Psychology Today writer put it several years ago, "they really mean 'trust your vagus nerve.'"
- The vagus nerve is essentially the queen of the **parasympathetic nervous system** — a.k.a. the "rest and digest," or the "chill out" one — so **the more we do things that "stimulate" or activate it, like deep breathing, the more we banish the effects of the sympathetic nervous system** — a.k.a. the "fight or flight," or the "do something!" stress-releasing adrenaline/cortisol one.
- Put another way, "Your body senses your breathing and adapts its heart rate in response," Norcliffe-Kaufmann told me. When we breathe in, she explained, the sensory nodes on our lungs ("lung stretch receptors") send information up through the vagus nerve and into the brain, and when we breathe out, the brain sends information back down through the vagus nerve to slow down or speed up the heart. So when we breathe slowly, the heart slows, and we relax. Conversely, when we breathe quickly, our heart speeds up, and we feel amped, or anxious.

## **Acetylcholine**

"Acetylcholine is the chief neurotransmitter of the parasympathetic nervous system, the part of the autonomic nervous system (a branch of the peripheral nervous system) that contracts smooth muscles, dilates blood vessels, increases bodily secretions, and slows heart rate."

"Many organisms make poisons that block the acetylcholine receptor, causing paralysis. These include a neurotoxin in cobra venom."

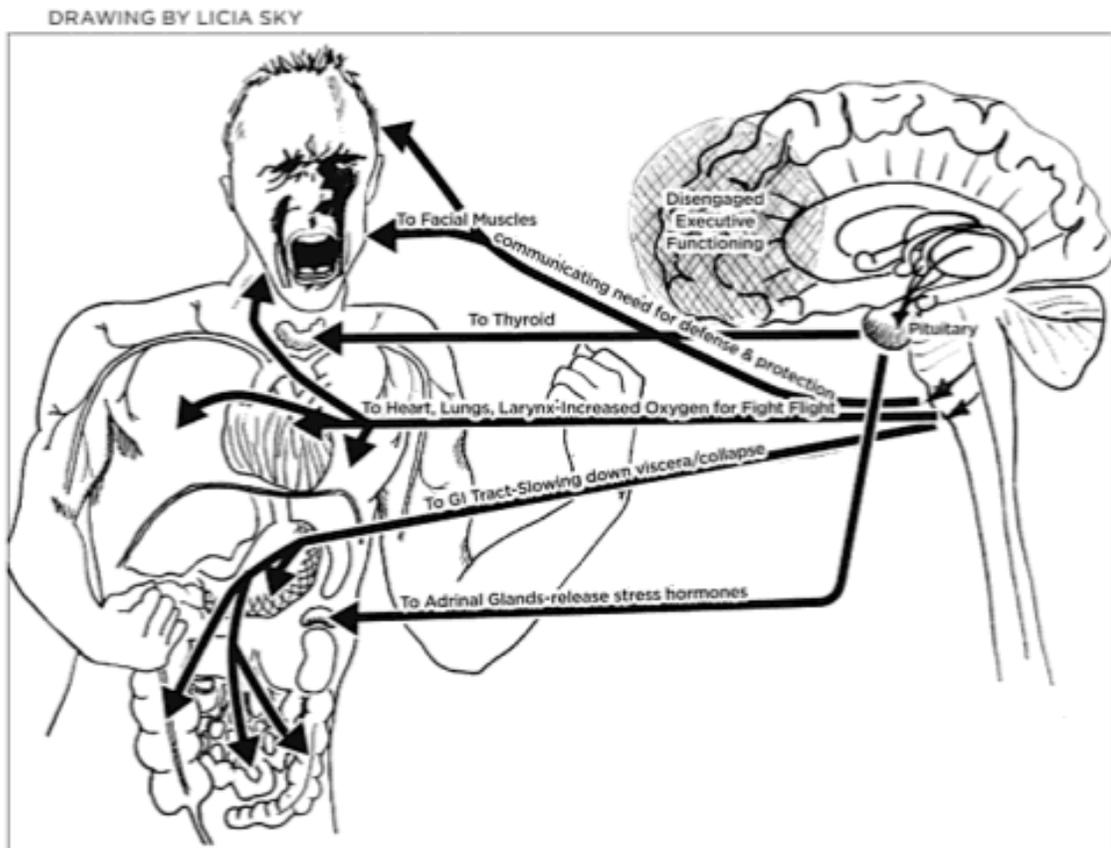
"The venom of a black widow spider also interacts with acetylcholine. When a person is bitten by a black widow, their acetylcholine levels rise dramatically, leading to severe muscle contractions, spasms, paralysis, and even death."

It can be found in all motor neurons

Was the first neurotransmitter to be identified in 1914



## Trauma



Trauma affects the entire human organism—body, mind, and brain. In PTSD the body continues to defend against a threat that belongs to the past. Healing from PTSD means being able to terminate this continued stress mobilization and restore the entire organism to safety.

Big section here on The Body Keeps The Score

The body doesn't just keep a score, it's effectively almost a sort of living memory palace once you start to learn how to read it

I mean it always was, but we're kinda trained to disregard, disconnect, disembody...

I feel like nobody ever sold meditation to me the way it (IMO) ought to have been pitched

The body is a sort of bustling metropolis, and to me meditation (which I approach as breathwork, really) is like, learning to make sense of it. As a native rather than as a tourist

The body is full of inside jokes that it hides from the cops, the feds, the adults, the squares (the consciousness)

It's actually pretty sad when you really get into it. It's all connected. The tyrannical fascism of mind over body is pretty bleak. "The worst violence is that which we inflict upon ourselves". If you don't listen to yourself how do you really listen to anybody else?

## **Testosterone**

Apparently having more social status increases testosterone in men, there's some study...

## **Lymphatic system**

## **Obesity**

I would defer to [@mold_time](#) on this. "The study of obesity is the study of mysteries."

"Only one theory can account for all of the available evidence: the obesity epidemic is caused by one or more environmental contaminants, compounds in our water, food, air, at our jobs and in our homes, that change how our bodies regulate weight.

We know that this is biologically plausible because there are many compounds that reliably cause people to gain weight, sometimes a lot of weight. Good examples are medications like Haldol, Clozaril, and Zyprexa, which reliably make people gain 20+ lbs."

<https://slimemoldtimemold.com/2021/07/07/a-chemical-hunger-part-i-mysteries/>

## **Nutrition / bulking**

<https://rippedbody.com/how-to-bulk/>

Hunger is a mood

<https://aeon.co/essays/hunger-is-psychological-and-dieting-only-makes-it-worse>

 Robert Wiblin's brain dump about exercise - Updated Feb 2020

Mental exhaustion

[https://www.reddit.com/r/explainlikeimfive/comments/3g1moj/eli5_what_exactly_happens_to_your_brain_when_you/](https://www.reddit.com/r/explainlikeimfive/comments/3g1moj/eli5_what_exactly_happens_to_your_brain_when_you/)

The brain functional connectome is robustly altered by lack of sleep  
<https://pubmed.ncbi.nlm.nih.gov/26712339/>