David
Stacey, it's so wonderful to have you on the show today. I know where you are, but you've got to tell everybody where you are.

Dr. Stacy Sims
Currently sitting in Monga in New Zealand. It is a little beach town that is about two and a half to three hours southeast of Auckland.

David
Okay, so you were testing my geography here. This is the North Island.

Dr. Stacy Sims
It is.

David
Amazing. And you're there because your husband is New Zealand kiwi?

Dr. Stacy Sims
Yeah. He's Kiwi.

David
Okay. So first thing, we have a mutual friend, Doctor Jen Wagner, who I adore, I just think is amazing. And she has something called prosper. We had her on and she was telling me she's like, women are not small men. They're different. Which one would think would be obvious, but actually sort of isn't. So let's talk a little bit about exercise physiology and what's different between our genders.

Dr. Stacy Sims
It starts in utero and a lot of people don't really realize that it does. I mean, you can see different epigenetic changes with different levels of the woman's hormones that are coming around the uterus. And into the developing fetus. But then when you're looking at DNA structure and you're looking at the XXS versus XY, the female fetus is more resilient to stress.

Dr. Stacy Sims
And then after the baby is born, we see differences in sleep patterns, development patterns just across childhood. And then when you get to puberty, you have this incredible dogmatic change with girls who are getting the onset of their menstrual

cycle. Their hip angle changes, their shoulder girdle widens to match the hip angle. They grow longer legs and arms and torso faster than boys do.

Dr. Stacy Sims
So we're seeing all these changes. But yet when you like bring it down to sport or anything like that, there's no actual definition of let's pull them apart. And when we do pull it apart, we see that by the nature being xxs girls and into women are born with more of the proteins and mitochondria for being able to use fatty acids.

Dr. Stacy Sims
And they have a slightly different availability of being metabolically flexible just by the nature being born XXS we see differences in bone density. We see differences in bone structure. We see that XY men that have more hemoglobin and red cell and iron counts than women do. We see women have smaller heart, smaller lungs, and so there's all these different physiologic and more morphological differences between the sexes, but it's not ever brought to the forefront to say, hey, you know what?

Dr. Stacy Sims
If we look at exercise and we look at nutrition and we look at sport, it's all just been generalized from a male model and we're seeing it even expand now with AI and the health care. I like when we're thinking about artificial intelligence, it's learning from the data and the data sets that are there. And all those are already male based.

Dr. Stacy Sims
So when we're getting recommendations that are coming from AI, it's still perpetuating that gender data gap and the male biases. So yeah, there's still a lot of work to like unpack everything so that we can be really specific that as X woman, we know that these are the things that you should be doing to improve health and longevity.

Dr. Stacy Sims
And as an XY man, these are the things that you should be doing to improve health and longevity.

David
And so let's pull that apart. I'm a 65 year old guy. I don't know how old you are. The okay, I'll ask you, how old are you?

Dr. Stacy Sims
I'm 51.

David
51. Okay. How should your exercise profile look different than mine?

Dr. Stacy Sims
Yeah. So women don't age in a linear fashion like men do. So we see, like this linear projection of age on a lot of the graphs. Right. And we see around 60, 65 there's a decrease in lean mass bone density changes in lipid levels, that kind of stuff. That's in a male model. But in women, because of perimenopause, there's a discernible demarcation around the mid 40s where women really, really have an impactful change that promotes, I guess, aging for the most fact.

Dr. Stacy Sims
So we're looking at the change in the ratio of our sex hormones estrogen, progesterone, and to some extent, testosterone because it starts to decline under stress. Every system of the body is affected by estrogen and progesterone. So we see that at the onset of puberty, as I was describing earlier, where it changes our biomechanics and our body fat distribution and our center of gravity, as well as our metabolism and some of our cardiovascular factors.

Dr. Stacy Sims
On the other side of things, we see that women going through perimenopause, I mean, the first five years after the onset of menopause, there's a one third drop in your bone mass. If you're not really careful about preserving it. So we see that's why there's such a high incidence of osteopenia and osteoporotic women that are in their early to mid 50s.

Dr. Stacy Sims
We see that there's a significant change in body comp, with a drop in lean mass and an increase in body fat, specifically the deep dominance of the fat. We're seeing changes of mood cognition. We're seeing changes in gut microbiome. So all of these things are compacted in perimenopause. Whereas men in a linear fashion have a longer time for all these changes to happen.

Dr. Stacy Sims
So when we're talking about aging and longevity, we need to look at what are women doing when they're entering perimenopause versus what a man is doing when they're in their 40s and 50s. So for women who are entering perimenopause, and we're having these changes in the ratios of our sex hormones, we have to look at an external stress that's going to create an adaptive response the way hormones used to support.

Dr. Stacy Sims
So this is where we look at differences in resistance training. Instead of doing the typical pink dumbbell two sets of 30 reps, which you could get away with when you're in your 20s, you get a little bit of quote toning or muscle definition. When you're in your 40s, it doesn't doesn't work. It's a metabolic stress that doesn't actually create lean mass development, nor does it increase strength and power.

Dr. Stacy Sims
So we have to look at more of a power based training, because if we're looking at power based training, it's more of a central nervous system response. So this is the really heavy loads, low reps. We're looking at working in reps of fatigue. So reps of fatigue means that you do a certain amount of reps really well with good form, and you might have 1 or 2 left before you're completely failure.

Dr. Stacy Sims
So we look at lifting at that heavier end to create a response that now the nerves are saying, hey, wait a second, we need to be able to recruit more fibers. We need to have a faster nerve conduction. And by the way, we need to build more lean mass. So that's a difference in resistance training. So if a man was in his 40s he could get away with hypertrophy type work to failure.

Dr. Stacy Sims
So you could do your 20 to 30 reps. Right. And you'd still get a muscle development factor. You'd gain more lean mass. But for women in their perimenopausal years, it doesn't work. It doesn't help change body composition because it's not a strong enough stress to invoke change. And the other thing we're looking at with like cardiovascular work, we need to really polarize when we are in our Perimenopausal years.

Dr. Stacy Sims
So we need to do that super high intensity work and really, really baseline low slow stuff, but putting a precedence on quality over quantity. So the whole buzz factor of zone two training that's been going in and around, like everyone should be doing zone two, you really want to increase your fat metabolism by the nature of being. Women are already metabolically flexible.

Dr. Stacy Sims
They already burn fat. What we need to do is we need to polarize, to be able to keep our fast twitch fibers, to be able to keep producing lactate, because we need the brain to understand lactate, to maintain proper brain fuel and brain metabolism for the gray matter. So there's a whole bunch of different aspects to that exercise

components, especially in the perimenopausal years, that is different from what men can do and still see results.

David
So I'm going to ask you to put some numbers on this. So in terms of zone two. So we've got seven days in a week. We'll assume we'll train six days a week. I'm going to strip out the strength training for a moment. And we're just going to deal with the cardiovascular. How many minutes of zone two versus what quantity of, you know, fairly high intensity.

Dr. Stacy Sims
That's all I have to quantify high intensity work because there's so many different different definitions really because we'll see like the bootcamp high intensity classes, which is not true high intensity. We're talking about high intensity. We're talking about high intensity interval training, where it might be a total time of 40 to 45 minutes. Within that, you're having good warm up and cool down.

Dr. Stacy Sims
And then the actual exercise set could be 1 to 4 minutes of an interval of 8,085% and variable recovery. So you're looking at maybe you're doing one minute on one minute off, or maybe you're doing two minutes on and one minute off. So you're trying to maintain a heart rate of between 80 and 85% for 20 minutes. And you're working within the variability of recovery to maintain that.

David
So this is a contrary to what I understand. If I have a heart rate monitor and we're not talking about effort, I'm just looking at my heart rate monitor. I get the Harvard. So for me like sort of my max is about 165 mid one 50s. I'm really feeling it. Keeping that for a period of time would be very uncomfortable, but I can keep it there for like a minute or so.

David
Get down to like 130 a minute on a minute off to whatever your interval is, two on, two off. Is that what we're talking about here.

Dr. Stacy Sims
So the whole week you're looking within the 45 minutes. You have a really good block of time with the recovery integrated into it. That when you look at your metrics at the end of that workout, you've spent around 18 to 20 minutes in that 80 to 85% zone. But you're able to keep it there because you're not trying to hold it for a whole 20 minutes.

Dr. Stacy Sims
Right. You're doing your variable recovery because you're polarizing within the workout. Now, the other factor that we talk about is sprint interval training, which is a subset of high intensity interval training. And they do two different things. So if we're looking at sprint interval training this is 30s or less as hard as you possibly can go with 2 to 5 minutes recovery between each interval.

Dr. Stacy Sims
So I teach people like on the assault bike, go as hard as you possibly can for 30s you're going to fully recover, and then we're going to try to chase those meters and beat them. So people are really learning to make themselves uncomfortable. It is a significant challenge. It's horrible. Loves it. It is horrible. Oh right. Right. But when we look at that kind of training, you're having a complete system response that is telling the body that we don't need to store visceral fat and we need to increase our insulin sensitivity.

Dr. Stacy Sims
So you're having epigenetic changes that occur with this high, high intensity work. We're looking at the little bit lower of the high intensity interval training, not the sprint interval training. This is more a metabolic capacity for getting more extra kind saying hey let's pull more fat into the mitochondria. Let's improve that mitochondrial function because we start to have a little bit of a dysfunction in the mitochondria when we are perimenopause.

Dr. Stacy Sims
So it's all about improving the muscle economy. So both of those work really, really well to improve the functionality of muscle, the quality of muscle body composition. And then both of those work to attenuate cognitive decline. So when we're looking specifically at what's happening in perimenopause and we're seeing all these changes within muscle quality, bone gut where we're putting our body fat, as well as all the issues we have around brain fog and cognitive issues, we're looking at specifically targeting that with intensity types of exercise.

Dr. Stacy Sims
We see a lot of fantastic outcomes. But when we're talking about the zone two, it's not a hard enough stimulus to invoke change. And when we're looking at the zone two data, it's all about improving metabolic flexibility and fat burning. And women are already there, so we don't need to spend time there. I get pushback there because we have people who are ultra runners or want to go out for their long run or their long ride.

Dr. Stacy Sims
I'm not saying don't do it, I'm just saying you have to take a step back and and go do your soul food, go for your hike or your run with your friends, go for a group ride, whatever it is. But don't make that the bread and butter of what you are doing. Don't spin the 3 or 4 sessions that you have in a week on zone two stuff, we want to look at 2 to 3 really good high intensity sessions, so that could be one true high intensity interval session and two sprint interval sessions.

Dr. Stacy Sims
Or maybe you're doing two high intensity interval sessions and one sprint interval session doesn't take a lot. It's not about how often you're or how long you're spending time doing it. It's about the quality of the work. So if you wake up one day, you're like, I had this high intensity interval session, I'm going to go try it.

Dr. Stacy Sims
And after the first ten minutes you're like, I can't hit those intensities. Then you call it and you do some mobilization. Maybe you go for really slow to a walk. You do something different. Because if you start trying to do that high intensity work and you can't hit the actual intensities you need to, you fall into a moderate intensity.

Dr. Stacy Sims
And this is the problem that so many women in up in is this moderate intensity. We see this with the 40 fives and the orange theories and the bootcamp classes, and the high intensity interval training classes that are a lot of the gyms are promoting, especially to women who are 40 plus, but it's not polarized enough, and the intensity isn't pushed enough to actually create true high intensity interval training.

Dr. Stacy Sims
And when you're in that moderate intensity, it just creates more sympathetic drive and you don't get any of the changes that I was just talking about with regards to muscle quality, muscle function, body composition, because your body's in the stressed state and we don't have any post-exercise responses to reduce that stress state. So this is where I always get women who are in their 40s going, I'm doing all this stuff and it's not working.

Dr. Stacy Sims
It's like, well, we need to pull back and see what you are actually doing for high intensity, how many days you're doing it. And if you are really, really challenging yourself in those intervals. So when we pull people back, we have them do two really specific workouts in a week and they understand, hey, wait, I can only do two in a week because if I try to do four, I just hit that moderate intensity because I don't have the recovery and the ability to hit that true high intensity.

David
This is great. I personally use zone two as sort of a de-stress situation. My strength courses are about an hour and a half a day, and then I do my cardio in the morning. And the major thing that I deal with is physiological stress. Yeah. So like in the mornings I will get on the treadmill and just walk uphill for 45 minutes as a way to just sort of bring things down, decompress.

David
Exactly. If we're talking about lifting heavy for three times a week, I can't really do heavy deadlifts more than once a week. It's too impactful on my body. Right? And, you know, if I do what you're describing, like a sprint workout and a couple hit workouts along with the weight training, what are your strategies for taking somebody out of sympathetic drive, getting them into parasympathetic so that they can recover because that's the fail, right?

Dr. Stacy Sims
That's absolutely the.

David
Recover.

Dr. Stacy Sims
Right. So Reteaching women, how to train is one of the biggest things. So when we're talking about heavy lifting, we're not talking about an hour and a half in the gym. Like I did a heavy lifting session this morning of front squats and hip thrusts. You know, I was in and out in 25 minutes. So we're looking at that kind of like short, really focused.

Dr. Stacy Sims
Every two minutes you're doing five reps of a heavier load and you're doing that. You know, maybe you're doing 5 to 6 sets of that with adequate recovery. So you're not super setting, you're not doing anything else. You're just fully recovering. And then you can finish that 25 or 30 minute session with the sprint interval session. So that sprint interval might be another 15 minutes.

Dr. Stacy Sims
If you're talking about 36 seconds or less, with really adequate recovery between. So then you're hitting two of your sessions in one less than one hour session in the gym, right? So if we're looking at it, we period eyes the the strength training where maybe

we're going to do it three days a week. So Monday, Wednesday, Thursday Monday is a squat focus.

Dr. Stacy Sims
Wednesday is a push pull focus. Thursday is your posterior chain, deadlift, hit thrust, whatever it is. Right. And then 1 or 2 of those days we're finishing with battle ropes or explosive kettlebell swings to hit the sprint interval. And then one other day of the week you might go do a true hit session, but your hit session could be with your friends.

Dr. Stacy Sims
Say you're walking up a hill or you're stairs. Then you can say, okay, well, I'm going to push harder for this one minute and I'm going to run up the stairs. I'll meet you there and we'll keep going or not like you can make it work for you however it is. And it doesn't have to be an hour and a half session.

Dr. Stacy Sims
It's all about retraining and reframing and getting women out of the mindset that calories in, calories out. We have to spend lots of time in the fat burning, all the stuff that was pushed on us in the 90s. Like we have to really unpack that and say the longer duration that you have, the more chance you have of increasing sympathetic drive by driving cortisol up.

Dr. Stacy Sims
Now, cortisol isn't a bad thing, but there's this rhetoric around increase baseline of cortisol. You're having elevated cortisol. You shouldn't do high intensity because of cortisol. If you do true high intensity and you do really good heavy lifting, you have a post-exercise response that increases growth hormone and testosterone, which leads for parasympathetic response. So this is the reteaching of let's reduce the volume.

Dr. Stacy Sims
Make sure that we're compounding our workouts appropriately so that we have adequate recovery between the sessions. So might do a Monday morning and a Wednesday evening. So the you end up with 36 hours or more between your sessions, and you're still going to get a lot of benefit from that. And then we're talking about the parasympathetic activity. I always tell people, look, you need to find a point in your day.

Dr. Stacy Sims
For me, it's first thing in the morning before anyone else gets up, because I want to have that absolute silence where it's just ten minutes of maybe some mobilization or

stretching or drinking a tea or a coffee outside, just being aware of the environment, just with no noise, and learning how to breathe and center yourself to bring yourself back to that point at any time during the day.

Dr. Stacy Sims
So there is a lot of that mind body connection that comes with it. So we look at kind of the well, actually four things to invoke change versus sleep. If we don't have really good sleep, we can't invoke any kind of change. There's no body composition change. There's no mental status change at all without really good adequate sleep.

Dr. Stacy Sims
Then we work on the physical for the most part, because women can start to see really good definitive change with heavy lifting, with strength within a few weeks. And then because nutrition is so polarizing, we work on nutrition kind of after we do the first two, because most of the time, if you ask someone about nutrition, they go, oh, I'm keto, or I'm if or I'm vegan or I'm plant based, like it's an identification, right?

Dr. Stacy Sims
So there's a lot to unpack there. And across those three we're working on the mind body. Right. We're learning how to invoke parasympathetic. So after 20 some odd years of working with people, I found that those are the three that you can really manipulate sleep first mind body throughout the other ones sometimes it changes the physical and the nutrition because some people want to work on nutrition because of the physical first.

Dr. Stacy Sims
But for the most part, I find retraining people how to train is so much more effective than just giving them a training program and saying, go!

David
This is fascinating. And I talk to my PT, so I cut down my program. They kill me.

Dr. Stacy Sims
Yeah, that's like an hour and a half. That's a long time to be in the gym every day.

David
Yeah. And they've amped it up to everything. Is now four sets of 1090 second rest between each thing.

Dr. Stacy Sims
Yeah. Like, what are you doing? Four sets of ten. Are you trying to get fatigue or trying to get hypertrophy? What are you doing with that.

David
It. Well sort of depends on what they're doing to me. Like I said, the de-stressing is like a big issue in my life.

Dr. Stacy Sims
Right? Right. And I find that when people do a lot of metabolic stress, like the higher reps and lower loads, it invokes more stress, because if you're doing the heavier loads and less reps, you leave feeling works, but not exhausted. And that feeds forward to a better parasympathetic drive later.

David
Want to have a word with them? They seem to be confused. They seem to think I'm like a 20 year old Olympian preparing for something or other. I don't know how they got that idea, but you can.

Dr. Stacy Sims
Say, hey, you know what? I talked to this strange woman who lives in New Zealand, and I'd really like to try something different just a little bit.

David
Yeah. Okay. You mentioned food, so I make it a point to never be prescriptive about food. You know, you're in the realm of, like, being prescriptive about God. Like, right. Bad place to go after. Oh, yeah. I'm not going to make any friends. So tell me a little bit about what your thoughts on nutrition are. Just what do you think it.

Dr. Stacy Sims
Yeah. So I always bring it back to the gut microbiome, like being a, you know, a very y asking question type person and cellular levels and things. I look at the gut microbiome and one of the, the really huge driving factors of poor body composition is having very poor gut microbiome. So if we're looking at a diet that really enhances gut microbiome, then it feeds forward for both sexes to really thrive.

Dr. Stacy Sims
So I always tell people get as much fruit and veg and whole grains as you can like really try to garner that fiber component and make that the base of everything. And

of course, high protein. But it doesn't matter what the protein is, if it's animal source or plant source, have a mix of it. Right. And it's always the 8020 rule.

Dr. Stacy Sims
Like 80% of the time you're really nailing it, then 20% is life. Yeah, because you don't want to stress if you're on vacation or school holidays or traveling or, you know, like someone brings you a really nice bottle of wine or whiskey or whatever it is you don't want to say, well, I can't have that because it doesn't work with my ethos at the moment.

Dr. Stacy Sims
So I enjoy it. Like life's too short, so you got to enjoy things.

David
When you talking about fruit and veg and if like that, are you speaking about absolute quantity or variety thereof? Both.

Dr. Stacy Sims
Both actually. Yeah. So I mean when you're looking at plates and things, it's like, let's go with the Japanese idea of your plate or bowl is primarily veg and some whole grains. And then you have an accent of meat. So your veg and whole grain is a lot of protein as well. And then your accent of meat complements it.

Dr. Stacy Sims
And then fruit can be dessert or snacks, or you can put the fruit in with your salad. So it's lots of different colors. Variety makes the bulk of everything. And even if you're making, you know, a sauce or something, you can look at, well, is there an opportunity to put in some spinach or some cauliflower into this red sauce?

Dr. Stacy Sims
So there's lots of ways of increasing the vegetable intake without going, oh gosh, I have to have another massive, huge bowl of salad.

David
And what are your thoughts on, you know, testing methods? I found when people tell me, like, I have to eat 170 pounds. So like people want me 107g of protein that this is like so it's just like so much is there a testing method on that? So to find out like how much I'm guessing we're all a little different at different activity levels, different microbiome and such.

Dr. Stacy Sims
So, I always like to remind people that the recommended daily allowance of protein is based on the least amount you should have to prevent malnutrition.

David
Right?

Dr. Stacy Sims
So when we're talking about protein, we have to look at our lifestyle. If you're sedentary, you probably need about an another one third. On to that. If you're very active like you going to the gym doing cardio stuff, you're really trying to get that to to 2.3g per kilo a day. So around that 1 to 1.1 gram per pound and you're like 170, that's a lot.

Dr. Stacy Sims
But when you start looking at all the things that are protein in it, you'd be surprised. So like you look at green peas, at Nami, nut seeds, your ancient grains, your spelt, your amoris, your bulgur wheat, even things like brussel sprouts has some protein in it, like a pea protein isolate is one of the protein powders out there that is almost the same as way.

Dr. Stacy Sims
And then you can look at all your dairies, your eggs, your fish, your your meat, all of these things all combined. So when I do a schematic for like a vegan and they're like, oh, how do I get 150 to 170g of protein? It's like, okay, well, we look chia seeds and oatmeal with some nut butter for breakfast.

Dr. Stacy Sims
And then we have a combination of different veggies and grains for lunch and then dinner might be tofu curry and that kind of stuff. And all of a sudden there's 150g in there and they're like, whoa, how did I do that? So we're not looking at 150 to 170g of just animal based. We're looking at everything and and combining all those things throughout the day.

Dr. Stacy Sims
So it's really easy to get that protein in if you're doing a wide variety of both plant and animal based stuff. If you are fully plant based, you might have to work a little bit harder to up that protein, like really including some tempeh, maybe some tofu if you can handle it. Putting some more quinoa and black rice in different places.

Dr. Stacy Sims
And sometimes, you know, supplementation really does come in to, to play. And it's not a bad thing. There's a reason why we have pea protein isolate or whey protein isolate as a supplement, not as a mainstay, but as a supplement to boost the protein level, especially in times of really heavy training loads where we know that protein not only helps with lean mass and recovery, but also helps with immunity.

Dr. Stacy Sims
So we're going from winter to summer. But the weather right now is so variable, I feel like everyone sick is like, okay, up the protein. Let's get everyone's immune systems going. And so for you guys in the northern hemisphere, when you're starting to cool down and kids are going back to school and there's a whole bunch of germs going around, it's like up your protein, let's keep your immune system going.

David
So you mentioned about sort of seasonal. Let's talk about within the day, assuming we have some kind of a workout here. We get up in the morning. But how do you counsel people to fuel themselves through the day taking into account these, you know, impactful workouts? Yeah.

Dr. Stacy Sims
So it's there's definitely a section six difference here right. So we see a women should not do any kind of fasted training. So for women we are looking at having some protein and carb before first thing in the morning workout. And then afterwards having a real breakfast. And for women it works better to have smaller regular meals throughout the day.

Dr. Stacy Sims
And we're talking, you know, not massive, huge portions, but you could break up your breakfast and have half breakfast before training the other half after. Then you have a snack of good quality protein. Could be a nuts and hard boiled egg or something mid-morning with some carrots or an apple. Lunch is a big mixed grain and veggie bowl with some other lean protein in it.

Dr. Stacy Sims
And then afternoon, you're having another high, high quality protein carb snack dinner. If you're trying to lose weight. But still train hard, then we look at dinner and take away maybe 150 calories. Usually that's dropping a glass of wine or having a slightly smaller dinner plate so your portion sizes just a little bit smaller, but not enough to create a calorie restrictive response that invokes kind of a a sympathetic to the in the brain.

Dr. Stacy Sims
So it's just a very, very small amount. And we take it away from dinner because we see that if you are having less food at night, then you're able to sleep better. So all feeds into the sleep hygiene aspect for men. Men are more capable with regards to being resistant to negative outcomes. You can do fasted training. It's not necessarily ideal, but you can get away with it and then have really good breakfast with high protein, about 30 to 40g protein after your training and then throughout the day, having regular hits of protein as well.

Dr. Stacy Sims
By the nature of the research and looking at what happens with men's bodies versus women's bodies, we know that men can have a big, huge bolus of protein, and that's fine, but women need to break it up throughout the day.

David
You use the word fasted. Which brings me to time restricted.

Dr. Stacy Sims
Time restricted eating. Yeah guys. Yeah. So buzzwords right. So we look at time restricted eating or intermittent fasting. If we look at population research. And with that population research is chrono biological research. We see that in both men and women who hold the fast till noon or after. And their eating window is from like 12 to 6 or 7 p.m. they don't have any positive outcomes.

Dr. Stacy Sims
They still have sympathetic drive metabolic syndrome. They don't get any of the benefits that you get from intermittent fasting or time restricted eating. For those who break their fast by about 8:00 in the morning and their eating window ends at 4 or 5, they end up with all the positive outcomes that you're seeing with eight hour window.

David
Yeah, okay.

Dr. Stacy Sims
But when we're really dialing it down to sex differences and looking at what women should be doing versus what men should be doing, we look at circadian rhythm. Really. So men circadian rhythm is shorter than a woman's circadian rhythm. So men's is about 23 hours. Women's about 25 hours. And for women we really need to eat within a half an hour of waking up.

Dr. Stacy Sims
To counter that cortisol peak. Because if we don't, the hypothalamus is like we're in a bit of a stress situation here, a flight or fight situation. So the first thing I'm going to do is I'm going to start really catabolic using my lean mass. So so for women we really need to be conscious and cognitive of our circadian rhythm in the way that our hormone pulses throughout the day.

Dr. Stacy Sims
Cortisol pulses throughout the day testosterone estrogen and after ovulation progesterone as well. And to some extent progesterone that's not produced from the egg breaking down. So in perimenopause you still have pulses of progesterone. But for men the circadian rhythm is slightly different. And we see that under times of stress, men lean up because the brain is like, oh, we have to get ready to to really fight or to really dive in and find some calories.

Dr. Stacy Sims
So that's why we're looking at the data of time restricted eating, holding things, restrictive calorie restriction and how that affects men's lean mass versus women's lean mass. So for women, time restricted eating is just normal eating where you eat breakfast, you have dinner, you don't eat any snacks after dinner and you go to bed, right? So you stop eating 2 to 3 hours before bed.

Dr. Stacy Sims
You wake up at food within a half an hour. That's your quote, time restricted window. During the day, you're eating at regular intervals and then you are tapering down your food and you're not eating after dinner. For men, there's a little bit more leeway where you can hold windows for a longer period of time if you are really looking for some particular benefit.

Dr. Stacy Sims
But when we look at disruption of circadian rhythms, we know that circadian rhythms are set with day and light and food and meal planning. So if you're really trying to get even energy, maximize your ability to train hard and to sleep well, you probably shouldn't be holding a really long fasting window either. You should probably follow the whole stop eating after dinner or, you know, no snacks after dinner.

Dr. Stacy Sims
Wake up, have breakfast.

David
I'm somewhat friendly with Brian Johnson, who stops eating at 11 in the morning, and he goes to bed at like, like 8 or 9 at night. I have to have something about an hour before I go to bed. Like I had some, like, collagen in my tea or something, or else I just wake up in the middle of night starving, and I.

Dr. Stacy Sims
Do eat enough in the day.

David
Oh my God, do I feel like I'm a farm animal? It's like, oh, I'm I'm either movie being okay.

Dr. Stacy Sims
Yeah. Cause it is a thing we see. And we've done a few studies with like continuous glucose monitors and sleep studies and a lot of people who wake up a lot are hypoglycemic because they haven't eaten enough in the day, or they go to bed slightly low blood sugar, and they should have it up a little bit. So yeah, if you're like, I need before bed, then you're the exception to the rule.

David
I've worn a CGM and the alarm will go off the alarm that says like. Morning.

Dr. Stacy Sims
Morning. Good morning.

David
You need to go to a hospital. And I'm like, fine. But yeah, I'm one of them.

Dr. Stacy Sims
Yeah. Bear. No.

David
No. Good. I want to touch on something. I saw you a pod that you did with Jeff. Momentous. Yeah. And the topic of empathy and stress came up, which I thought was fascinating, I guess. There.

Dr. Stacy Sims

Yeah. So although I live in New Zealand, I travel a lot because most of my work is in the Northern hemisphere. And over the past few years, I've seen a significant shift in humanity where there is actually a significant loss of empathy and support networks. And we know that the human beings are social. We're social by nature, right?

Dr. Stacy Sims
But the friendships aren't real. And we see a lot of social media and people are looking at friendships through social media, their likes and swiping and all that kind of stuff. So there's no real connection. And there's some research coming out showing that there is that connection between the false friendships and lack of empathy. But people are so angry.

Dr. Stacy Sims
And as we get older, we really want to foster empathy and understand where another person is coming from instead of jumping to a reaction because we need those social connections, we need to make sure that we have social support. We have people we can lean on, we don't want to be locked in a room somewhere and trying to get through our thoughts and and not have any kind of support, because that is a significant contributor to all of the negative mental health issues that we're seeing come down the line.

Dr. Stacy Sims
So I think we just question was how we age gracefully. And I was like, starting with empathy and understanding another person's point of view, understanding where they're coming from and not reacting. Because if you have empathy and you can respond in kindness, then people will take a step back and do the same. So we need to start spreading that empathy and kindness so that we can reach, Garner and recapture the social connections of true friendships, instead of really leaning on the superficial ness of social media and the superficial friendships that we see so often now.

Dr. Stacy Sims
I mean, I see it from my daughter's 12 and that friendship circle, and then you see it through the high school circles and onwards. And it's just really sad to see how humanity has evolved in the past few years, especially with the trigger, the pandemic and the lockdowns and how everyone got so angry and divisive and so quick to jump to such a negative thought process.

David
I want to bring this to something we talked about a little earlier in the conversation about stress. So this idea of increased empathy is a parasympathetic trigger, and it helps us well, I'll put the other way. Lack of empathy leads to anger and stress and

very difficult to get into a parasympathetic state. And you're not ever recover. So like I thought that was just fascinating the way you tie those together.

David
That's a little moment of genius there. Stacey. That was great.

Dr. Stacy Sims
I'm reading about it like if you are here on social media as a figure, you know, and then someone has negative comments. Most of us know not to read comments, but sometimes that comes through and you have like the significant negative reaction, the PTSD type of reaction, and then that stays with you and it stays for weeks and weeks and weeks.

Dr. Stacy Sims
And it just significantly damages the ability to recover and relax and have that parasympathetic drive. So if we see one comment can do that to one person, then all the rhetoric that goes around is just creating this massive mental distress and lack of ability to relax and be able to sleep well and enjoy life.

David
I thought it was just a wonderful thing. You know, we talk a lot about the sauna, the ice baths or red light or biohacking, you know, all that sort of stuff, right? Like whatever we can do to, like, chill it out, you know, go down and, like, float in the pool for a while or whatever it is you brought in this entirely other factor, which is something really basic and human, increasing our empathetic skill set.

David
Maybe you don't need to do all that other stuff if you can just do a little bit of this.

Dr. Stacy Sims
Make feel good nice to people, and then you get the niceness back.

David
You know, as we're talking, there's a lot of, you know, these sort of like, I mean, I get some hate mail because I'm gonna say this, but there's a lot of this sort of like bro, like biohacker sort of like prescriptive, the stack that, this, that, like, I mean, come on. And I just think, like how much time you spend out of your house, like saying hi to people you don't know, right?

David
Oh, not much.

Dr. Stacy Sims
No, not at all. Or when you ask someone how their day has been, you really mean it, right? Yeah.

David
Yeah. I often puzzle about this sort of like new religion of that sort of stuff and how it does take the place of, you know, when I was growing up, we went to church every Sunday. I don't do that anymore. But there was like a community there, and there's a lack of that. And I think that that's, you know, for a lot of the reasons that you mentioned this sense of like, I need to do something.

David
So I'm going to follow whoever.

Dr. Stacy Sims
Community there by following them and seeing how other people are responding. Yeah, but it's not true community.

David
No. I'm part of a distant tribe that I think I'm part of in my mind, but I really don't have any connection to. Yeah, yeah.

Dr. Stacy Sims
Okay. So now our job is to go out and be nice to people.

David
It's something I tell people when you're in an elevator, you just turn to whoever else is in the elevator with you. You just say, I love your shoes. Those are great. Super safe. Right? I do not see any other shoes. Like right? I do this all the time. I've never had anyone attack me in an elevator like this.

David
And they're always just like, oh, wow. Oh, thank you for noticing. I got them wherever they're, you know, sometimes I just get sort of a grunt, but, you know, that's the response. Maybe that's their way of connecting. They grunt, okay, I'm good with that. But I think that's like part of the reason that we do all this stuff that we're talking

about, the reason that we lift weights, we go to the gym, we try and eat well and sleep all this stuff.

David
It's so that we can have a joyful human life. It's not. So we go home and like, live in a closet. That's crazy, right? Yeah, yeah. I think we can emphasize that this is a part of high performance living is what I'm trying to say. I love it that you brought that up and tied those two things together, because I think that's quite rare.

Dr. Stacy Sims
Thanks. Yeah. It's amazing you get more people talking and being nice to each other.

David
Yeah. Doctor Stacey, you are awesome. And what time is it in New Zealand now?

Dr. Stacy Sims
Sydney morning. Tomorrow.

David
Tomorrow. Wow, wow, you're ahead of me. Okay. As always.

Dr. Stacy Sims
You get to have a long sleep first before you have to face today. So. Yeah.

David
That is true. Thank you so much. I wanted to talk a little bit about Bdnf and I think this is wonderful. You're just a fantastic resource. And at some point I want to get a full debrief on the menopause conference. That was last week. A lot of stuff you told me about that is really quite different from my understanding.

David
So I'm looking to be educated on that.

Dr. Stacy Sims
That'd be awesome.

David

Stacey. Enjoy the rest of your day. Thank you.

Dr. Stacy Sims
So you do take care.

David
Bye bye.