

Hacking Your Biohacks for Better Sleep, Fitness & Weight Control– Interventions With Dave – Sean Plotkin – #939

Dave Asprey:

You're listening to The Human Upgrade with Dave Asprey. This is a Special Interventions with Dave issue, where I sit down a member of my mentorship and membership community called The Upgrade Collective. And we sit down and we work on understanding a specific set of circumstances and what to do about them for a specific person. And you may have heard some of these where we'll talk about someone who's working on autoimmunity or someone who's working on performing better or wants their brain to be better.

And the reason I do these is because I want you to learn by listening how to think about hacking your own health. So you may not be like today's guest or today's intervention. His name is [Sean Plotkin 00:00:59], he's 44 and he's going to talk about his priorities in biohacking. And we're going to come up with a plan that accounts for what we know, including some lab data, including what works and what doesn't work, and then come up with a hypothesis about what other things could happen.

By hearing a few of these, you actually download the skill yourself in order to do it. That's the goal here. And I have fun doing this, and it's one of the many benefits people get when they're members of the Upgrade Collective, they get to be live audience members for my shows. So you get to ask questions, interact with guests, weekly calls with either me or coaching staff and just the whole community of people who are really, really out there. We've got our own coaching app. It's a big deal. And I'm putting a lot of my energy into the Upgrade Collective. So I'd love to see you there. Go to daveasprey.com or you can go to ourupgradecollective.com. Either one will get you there.

Sean, welcome to an Intervention. If you're new to this, I'm going to teach you how to think about it. And this is systems biology and systems wellness we'll call it, where you just can't look at one part of the body all by itself and assume it's not affecting everything else. In Western medicine, we'll typically say, okay, if you wanted to herd some sheep, you'd say, "Well, which sheep is the one that's at fault?" And the answer is it isn't that sheep, it's that you need to have multiple touch points to get the system to go where you want it to go. Your body is the same way. So what's bothering you? What do you want to work on?

Sean Plotkin:

Well, I think from your readings, and I've read your books and it's helped me to realize that there was a problem. I didn't even have an awareness that there was a problem. I just thought I was aging and I just thought, oh, I'll deal with it. But in reading your books, then there's an idea that there's an awareness. And then it goes to the next step of well, is this stuff real or is it not? And I think of the book Dune where they say one of the main characters, "Doubt is the mind killer." And I-

Dave:

It is fear is a mind killer, not doubt.

Sean:

Fear. Okay. Fear is the mind killer. Well, fear and doubt are kind of similar and parallel.

Dave:

They are indeed.

Sean:

And you're always going to look for reasons not to do something. So yeah, it is predicated in fear. I call it doubt. But with your journey through many of the paths, it's helped me to get more of a data-driven approach so that I'm operating with something. And then that's a base of comparison to, well, I measured here and then I measured there. So there is a difference. And now I can see that there's steps to go with it. So part of my coming to you is the journey of all of the different data that I've got and the steps that I've gotten, which like with this thing, I see that my REM and my deep sleep have improved since September, since I ended up getting some of the products at the Biohacking Conference.

Supremely, like my REM's gone up to hour and a half from like 30 minutes. My deep sleep has increased over an hour from 15 minutes. My ability to increase my sleep efficiency has gone up. My total time in bed. So I'm seeing things that are improvements and it's feeling that I am able to take control of my life better. And I thank you for bringing that to me to know that that can be an option.

Dave:

When you reached out, you said, "Hey Dave, I'm raising my hand to volunteer and see if I can get in on one of these interventions." So a lot of people want to do them from the Collective, but there's only a limited number of shows like this. You said, "Look, I want to lose weight because it's creeping up," and you want to keep quality of life in the hustle is what you said. And the reason I wanted to talk with you is that Sean, you've already done a lot of biohacking. You're a member of the Upgrade Collective. You've been to the conference and you've actually got an OOLER from ChiliSleep to cool your bed.

You've got the Hapbee, you've gone through and done some dental work. You actually bought a hyperbaric chamber and sauna space at the conference, got a infrared sauna. You even did 40 Years of Zen. So okay, your guy is already relatively accomplished biohacker. Everyone listening is going to go, "I want to be Sean." But you're also listening and going, "Goddamn it, I do twice a week exercise and I'm still getting weight coming on. What is going on with me?" Is it the weight or is it quality of life that's your most important goal?

Sean:

Well, I'll tell you, whenever we go on vacation, two things happen. One, my businesses make more money and two, I lose weight. So I don't know if I'm a part of the problem or if I'm a part of the solution. 40 Years of Zen, I want to hype it up. It was an amazing experience. A great group of people, very serene there. Thanks for making that. Being able to exercise gratitude and find my floating Yoda to help me to visualize things, being in your pods, you make amazing things happen. So thank you.

Dave:

It's hard to put words to it. You're welcome. I'll say it's a meaningful upgrade and it has been for a lot of people. So thank you, Bruce, for the trust and designing to it. It's pretty be out there. You say, I'm going to spend five days, I'm not really sure what's going to happen, but I know my brain's going to be better. So awesome. So what is it-

Sean:

I'm doing three days a week and I did a NutriSense continuous glucose monitor. With the recent regulations, people couldn't be in the pool. And if they were in the pool, they couldn't be in close contact. So our team would be swimming and I would be doing more swim sets than I had ever done before except for maybe when I was in high school or college, but not in the past 15 years. And I just was working harder. And then I was also fasting to try and get the weight down. And when I put in a

CGM, they saw that there was a cortisol spike. My blood sugar spiked after the swimming because my heart rate was going between 150 and 180.

I'm trying to keep up with 20 and 30 year olds and 40 year olds because I think I'm a pretty good water pool player. I just got all Americans, so Woo-hoo. But to that point, they're telling me, "Hey, you need to eat. You need to eat more protein. You need to do this. You need to do that." And I'm like, "Well I'm trying everything and it's just gaining weight. And I don't know whether it's-

Dave:

Got it.

Sean:

... lower testosterone or working out harder." My naturopathic doctor, she's great, Alice, she's like, "Eat more red meats." So I have ButcherBox coming in with the grass fed meat-

Dave:

Good. [crosstalk 00:08:00].

Sean:

... having a background of going to Brazil. I highly recommend you guys use the [inaudible 00:08:04] incut, it's like Picanha, which my kids love Picanha. We put it in the air fryer. It tastes delicious. It's got a little bit more fat and it's not common here. Right? So the fact that ButcherBox has it, we're in love. We're doing this salmon with the wild salmon, the omega 3s.

Dave:

So you're doing well. And one thing I want to explain for people, if you do infrared sauna or regular sauna, you do cold exposure or intense exercise, it is normal and healthy for your blood sugar to go up. This is supposed to happen. And sometimes people are like, blood sugar, bad, keto all time. I would call this the keto bros and people who have fallen into the keto trap, which is not going to end well, it's same as the carnivore trap. The way to get out of the carnivore trap is, oh, carnivore plus non-inflammatory vegetables and plus a source of carbohydrate.

You're like, yeah, there's a name for that diet. But maybe what's going on there is you just don't have to worry. When you exercise, cortisol is going to go up during any intense exercise or intense heat like that. And it does that in part to liberate blood glucose so you can have some available unless you had something before you ate, which might elevate your blood glucose and keep your cortisol down, which isn't something you necessarily need or want to do. You'll find better results if you eat right after you exercise or potentially because there's a time between when you eat a food versus a liquid sugar of some sort.

And when it hits your stomach and when it hits your system, so if you're going to do a 20 minute workout, you could have something right before the workout because it's going to come online as soon as you're done, but deals after the signal of the workout gets through. Then you want to be able to have nutrient availability, which is No. 1, energy, No. 2, protein and No. 3, carbs. Unless you're in a full on keto mode. Carbs raise mTOR much more than protein does and mTOR stimulates muscle growth. So you don't have to worry if you go up. If you go up to 300 blood sugar after workout, you got issues. But if it's going up to 150, 160-

Sean:

170. Yeah.

Dave:

Yeah. So you probably have a little bit of insulin resistance and because we know you have a fatty liver, definitely [crosstalk 00:10:22].

Sean:

I don't. I don't. She had me do an ultrasound.

Dave:

[crosstalk 00:10:25].

Sean:

I never did. So the ultrasound says I don't have a fatty liver on my what, AC1 or the blood glucose, I'm at a 5.6.

Dave:

It says on 5/7/21, you had mild hepatic [inaudible 00:10:40].

Sean:

Oh, well, then maybe I misunderstood it. Because my naturopathic coach was like, "Oh you got a bad fat liver." Oh, no. Nevermind. But maybe mild still means that it's there.

Dave:

I don't know. Do you want to be just a little bit diabetic?

Sean:

No.

Dave:

Okay. Sorry man. Pre-diabetic is still diabetic. That's just how it is.

Sean:

Cool. Right.

Dave:

Right? Any other signs of insulin resistance, HBA, A1C, do you have that somewhere in here?

Sean:

That I don't know.

Dave:

Hmm, let's go [crosstalk 00:11:09]-

Sean:

But I do know off of the thing that measures the gut bacteria, what the smart crew that spoke-

Dave:

[crosstalk 00:11:16].

Sean:

I didn't want to say, but yeah, they're saying my cellular efficiency is like a 13 or a 17. If you want to look at that-

Dave:

[crosstalk 00:11:24].

Sean:

... that stuff scares me. And seeing that I aged biologically where they say I'm 48 and I took it when I was 43, I don't know if I caught something twice that maybe is making that happen. So it's like, all right, I want to live longer, I want to enjoy my family more. And now that product's telling me I got older and my cellular efficiency is bad and my mitochondria is bad.

Dave:

Okay, so you got work to do. Congrats on figuring that out. And I'm looking here, it also says in your labs that your glucose is at 116 in your comprehensive metabolic panel and the range is from 70 to 100. And so that's, I'm guessing this was fasting. I don't really, I mean, I [crosstalk 00:12:13]-

Sean:

It was fasting. Yeah.

Dave:

Okay. So basically-

Sean:

But what date was that? Was that the older one from August or is that the newer one from November?

Dave:

7/26?

Sean:

Oh no, I-

Dave:

Sorry. That was 7/26. That was the old one, this is the newer one after that. So it says the previous was 101. So it actually went up a little bit between August and whenever this one was drawn.

Sean:

Interesting.

Dave:

I'm looking at, let's see. Yeah, that was the results here. Your progesterone is a little high strangely. Some of your testosterone-

Sean:

Well, no. To that, my naturopathic doctor, I was having sleep problems. I was recommended to have Progesterone and then I-

Dave:

Oh, you were taking it. Okay.

Sean:

Right. To help me to sleep. But the hyperbaric, having the deep sleep increase from 15 to 20 minutes to go to an hour and 15 and the REM and then tracking it-

Dave:

Life changing, huh?

Sean:

... with the Oura Ring and putting in 70 second session, Sean, 60 minutes, my son, Ben, 60 minutes, 34th session and being able to account for that stuff goes back to the data driven approach that you espouse and it's awesome. I love the technology and my friends make fun of me because I have like an Apollo Neuro on me and I have the Oura Ring and I have the Apple Watch. I'm a little bit upset that I can't use the information from here. They made it into a moat and I can't share that with people unless you've figured out a way.

Dave:

You can get the sleep data from your watch. SleepSpace, one of the companies I'm an investor in, has the best sleep detection algorithm out there. They'll take data from your Oura Ring or from an Apple Watch and run it through a provably stronger algorithm for sleep detection. So there is a way to unlock it that way and it's sleepspace.com, I think [crosstalk 00:14:03]-

Sean:

I did download it and tried to put it next to my bed, but I just didn't know how to make it work, but I'll go back and watch some more videos and spend more time since it aggregates the data. To me, that's important. So cool.

Dave:

It is. It just runs it through a better algorithm here. Now let's get down to it. You're doing a lot of stuff, more than most people, and you're losing insulin sensitivity over time according to this, and you're gaining weight, how's your cognitive function? How's your energy level?

Sean:

I'm going to say that my cognitive function has become clear, maybe with all of the stuff that's going on. The sleep is a lot better. And I have the eye mask. I bought that pillow. It seemed expensive at the time, but it's one of my favorite things. I have a tooth guard so that I don't grind because you... And my dentist recommended that.

Dave:

Wow. You're doing it right.

Sean:

I read the book by James Nestor and all of the benefits for nose breathing. So I taped my mouth and Deborah was a big proponent of taping the mouth. So I listened to her. And then my sleep scores, when I wasn't doing water polo, I used to be 50 to 60 as a sleep score. I was getting my readiness hitting 90 and I'd never gone above like 60. And then I was getting my sleep score into the 80s and I was usually in the 50 or 60s. So that's lockdown and thank you for helping me to do that. I just don't know whether it's the water polo late at night from 7:00 to 9:00 PM.

There was a period when I had that second infection or that second whatever for a month where I wasn't going. And even though I got it, my sleep scores were awesome, but I wasn't doing water polo. So I almost wonder if it's the two hours of intense exercise that's messing with my weight, but my mind's there.

Dave:

How often are you doing that kind of exercise?

Sean:

Three to four days a week.

Dave:

Yeah. You're overtraining for a 44 year old. If you're doing two hours of intense exercise in cold water only three or four times a week, that's going to explain a lot because one of the other things that's popping out in your labs is there's three major, major markers that I want people to know about. Like, look is the Bulletproof Diet doing what it's supposed to do? Is all this biohacking moving you in the right direction? There's hundreds of markers you could look at, but there is the inflammation markers. And people say, "Oh, but I ate some butter," which is our ancestral diet and is not correlated with heart disease. But okay, I ate some butter and now I'm worried, okay, maybe your cholesterol went up.

Maybe it didn't. It can do all sorts of different stuff. What I expect to see is a drop in triglycerides, which is beneficial, an increase in HDL, which is beneficial and LDL can do whatever it wants to do with cholesterol. It can go up, it can go down. It usually goes up for the first two years as you're cleaning out your fatty liver. And then it tends to taper off and just become normal again. So where I am today, I'm around 220 is my total cholesterol. And my HDL is usually somewhere like 60s, 70s. It varies all the place. Sometimes it's been as high as 86. And my LDL is whatever's left after that.

But my triglycerides are low, usually like 37, 40. So that's a highly protected pattern. It's just not a typical pattern. And I don't know if you want a typical pattern, because that's from people who eat seed oil and stuff to the point there isn't a control group anymore unless you go to people on the

Bulletproof Diet or maybe some of the carnivore community and even a lot of the paleo people now, it's like almond flour and everything and there's your omega six.

Sean:

Well, we're using the grass fed ghee and we like the flavor way more. It's more of a concentrated flavor.

Dave:

So what's jumping out for you though is that your C-reactive protein, and this is a number that ranges between one and three milligrams per liter. Yours is at 2.6. So it's in the yellow zone. You want it to be below one. What that tells me, what's going to raise your C-reactive protein? Chronic infection, but you've already had your teeth done, which is the most common source of that. Do you have any joint implants, fake knees, any of that kind of stuff? Okay. Fake breasts.

Sean:

My father had multiple sclerosis and I did see that I had to increased monocytes. And I wonder if that maybe a precursor. That's one of the things that brought me to be concerned because he [crosstalk 00:18:46].

Dave:

Increased monocytes is, it's probably outside of my domain of expertise to talk about specifically with MS. I've written some stuff about MS in the books about cognitive function and neuro decline. And it's amazing how fixing MS, if you look at Terry's-

Sean:

I watched Terry Wahls. Yeah. The Wahls Protocol is amazing.

Dave:

Yeah. If you look at the Bulletproof Diet and the Wahls Protocol, they're like 90% in agreement. She just thinks lectins are okay. I think they cause neuro inflammation for most people. So you should be careful. She [inaudible 00:19:19] pepper, I won't. But otherwise, when we sit down and have a meal together, our plates look really darn similar, right? So I think her protocol is very solid. But what you have is a C-reactive protein that's high. And an injury, heavy exercise or a chronic infection is what raises that.

Your C-reactive protein is likely chronically elevated because you're exercising a lot on that kind of regimen, which is basically like proathlete level two hours of training four days a week for a 44 year old who's also running a company and is a dad and a husband.

Sean:

[crosstalk 00:19:56].

Dave:

Okay. So there you go. That's what's going on here is you're probably putting a heavier load of physical stress on your body than you want. Now you really like this, I'm not telling you that you need to stop exercising. I'm just saying that you're going to need to pay a lot of attention to what you do after you exercise. And for two hours of workout, you probably want to eat before that. You're way exceeding the

recommended length of it. If you do that much exercise without protein within about 30 minutes of exercise, you do get a two day cortisol spike.

This is why I tell people, eat after you exercise. Fast, exercise, eat is the general protocol I've used for years and years. So I think you actually do want to say, all right, I'm going to have some highly available protein. I'm working on a new derivative of collagen, different than anything I've ever done before that I'm going to have out for you soon. But in the meantime, any kind of protein before you exercise for two hours is not a bad thing. And I don't have a problem with you even having some starch, but I don't think you want straight sugar because you're working on insulin. So there is something called SuperStarch that's out there that's designed for endurance.

And look, a two-hour, cold water, intense exercise with breath holding, which is water polo essentially, I think that that would qualify. And this doesn't raise your blood sugar meaningfully, but it does increase glycogen in the body.

Sean:

Thank you. Yeah, it is about 1,000 to 1,500 calories that the Apple Watch says.

Dave:

You're putting a big load metabolically every day. You're not getting enough recovery is what's going on. If there's an Upgrade Labs near you, I know a few recovery technologies there. You can use the sauna, but sauna's actually, it's almost more of a stimulation technology, both cold and hot and exercise will increase [inaudible 00:21:47] Alpha, which is something that happens when you exercise. There's cold shock proteins and heat shock proteins. So just those are both healing but also stimulation at the same time. So it's about not overdoing those as well.

I've been recommending people do like a cold shower for a minute or two most mornings or some cryotherapy, but you don't need to do the marathon freezing your ass off for 20 minutes the way I used to and I started doing cold therapy a long time ago. I have digital chillers and I was all into this driving in the winter in a t-shirt with the windows down and just freezing your ass off all the time. And it turns out that's not good for you. And [Susan Soderberg 00:22:30] just came out with really good data that's saying you need like three very short sessions of cold therapy a week followed by, I think it's an hour of heat or not followed by, but an hour of heat in total throughout a week.

So what this comes down to is you're getting tons more cold therapy in the water. I'm assuming it's not highly chilled, but you're not playing in a heated pool. Right?

Sean:

It's 70s. It's not too bad.

Dave:

Okay. It's still-

Sean:

It's still a little [crosstalk 00:22:55].

Dave:

Yeah. Two hours in 70 degree water is cold therapy, right? It's a question of area under the curve when your body's working to make heat. So congratulations on being well enough to do that. Most people

listening would have their asses handed to them if they did what you do, but you are handing it to yourself with this kind of training without excessive recovery, which means going to bed early the days you do that. It means protein before and probably SuperStarch before and after eating a full on meal to reduce the stress, reduce the cortisol, drive down that C-reactive protein. I think that's going to help you a lot.

So let's talk about some other stuff. So that's an inflammation marker. What I love seeing, you also got a measure of oxidized APOB, essentially oxidized LDL cholesterol type of measurement. And what this means is that you don't have oxidized cholesterol. And people say, "Oh, cholesterol, oh bad." Well, is it oxidized or not? Oxidized cholesterol goes through and creates inflammation. Unoxidized cholesterol goes through and actually can remove toxins and transport energy around the body. It's not necessarily a bad thing.

What I didn't like seeing though, was your triglycerides are 144. And the upper limit that gets you into the medium risk is 150. I'd like to see your triglycerides more in like 70s or 80s. Do you drink?

Sean:

My naturopathic doctor told me to stay away from beers. So if I do drink, I do a shot of tequila maybe two or three times a week.

Dave:

[crosstalk 00:24:29].

Sean:

If I'm with guys, to do something, but yeah.

Dave:

So here's the sad thing. One shot of tequila three times a week is a likely contributor to your mild fatty liver. In fact, it's the most likely one. It also, that frequency, which sounds like it's not that big of a deal, you already know what it does to your sleep, right? What does that call do to your sleep?

Sean:

Strangely before the Oura Ring, when I would drink more, I'd have better deep sleep. But now that I'm doing everything else and the hyperbaric and the infrared sauna, yeah, it's messing up my sleep clearly.

Dave:

So there are people who will say, "Oh, but alcohol makes me sleep better." Yes, it can do that if you have a bunch of other stuff wrong mostly because it's helping you with stress because it's activating GABA receptors in the brain. GABA's an inhibitory neurotransmitter. However, if you monitor your sleep, there is zero doubt that for everyone, alcohol is a net negative for sleep. And there's even more evidence, mostly from my dear friend, Daniel Amen from the Amen Clinics whose technology actually helped me understand I had a hardware problem not a moral failing in my mid 20s or maybe 30. I'm like, why am I failing out of Wharton? Because my brain is broken not because I'm a bad person.

Sean:

Would you recommend getting the spec scan for myself or my children?

Dave:

I would totally do it for all of you and see what's going on metabolically in there. There is a contrast eye called gadolinium, I believe that's still used in those that can have some risks. I don't like doing lots of those, but especially for you, you'll see what that alcohol's doing for you. And if you look at his social media or his posts or any of his books, he's very straightforward. And here's, one or two social drinks a week and this brain has holes in it and this other brain doesn't.

So alcohol, look, drink alcohol that's older than you and just do it once a month, but you can't do it three times a week if you want to get rid of your fatty liver, you want to drop your C-reactive protein, you want to get your triglycerides down. Tell me about your favorite carbs. What are your favorite carbs?

Sean:

The worst ones, of course. A good pizza, a pasta. We were doing sourdough thinking that that helped the CGM realize that that was messing things up. That's pretty much it. I'm not a potato guy or-

Dave:

What about sugar, sweet stuff?

Sean:

I don't have a sugar habit. No.

Dave:

No agave, no corn syrup, no regular sugar?

Sean:

Probably yes. I'm not actively adding it in, but if I'm eating or I'm eating out or I'm eating on the run, how do we eat right at work or with our staff or when we're not at home where we can't cook? We're looking at potentially putting a kitchen in and trying to figure out how to eat better but it's been rough.

Dave:

Well, what I do quite often is I'll put scoops of stuff in my coffee or I'll bring food from home. Or if that doesn't work, you go to a restaurant and say, "Give me the steamed veggies. What do you got?" And some, maybe some white rice, if you're not doing a lower carb thing. And then if they have good butter, I can put some butter in there. Otherwise, I'm not about bringing butter with me. I'll put butter in MCT. I've traveled through China with a stick of butter. I'm sorry. MSG was disabling to me. I was actually very sad to see my friends at whole 30 wrote a big post about how MSG is now allowed on the diet. And somehow they're trying to correlate it to racism.

MSG is used far more in processed food and Western cooking than it is in Asian cooking and saying that it's racist is just not accurate. Either it does something in your brain or it doesn't regardless of which cultures use add it in. I would say it was originally from Japan actually even though it's used commonly in Chinese food. So I'm not sure how they were able to make it a woke issue when it's a brain metabolism issue. But MSG would be something that also destabilizes your blood sugar and it causes intense cravings. And it's been known for a long time.

So for me, I'm like, I'm going to go to China and I've traveled through China. And it's like, well, I really want to eat this amazing food. And at certain places I can, but many places you go, and I'm the

dumb westerner, and I'm not going to tell them what to do. And I'm at a business meeting and I'm going to be disabled if I eat the food. So what I do, I'm like, put a little butter on some white rice and then no one really pays attention very much and it's all good, but you do your best to fit in. So veggies and rice or potato, if you tolerate potato and you want some carbs and since you're not gluten free, have some pasta if you want.

Sean:

No, I'm supposed to be gluten free, white rice or brown rice?

Dave:

White rice. Brown rice is complete crap. No rice eating country intentionally eats brown rice unless you're too poor to afford white rice. This is going throughout history. And there's a few of them where, oh, I heard sometime in the 1970s from a long dead health influencer in America that brown rice had fiber. Oh, it had 80 times more arsenic and it causes bloating and it's rough on the gut. And it turns out that's why we polish rice. And only the people who couldn't afford to Polish rice would eat the brown rice because it's better than starving to death.

Sean:

Basmati rice, is that okay too or no?

Dave:

Basmati is actually lower glycemic than like a sushi rice, but anything that a white rice is going to be better. But look, rice is not a source of nutrients, brown or white. Rice is a source of starch. It's a source of energy. You get your nutrients from animals primarily and seafood and a few veggies, but not as many veggies as we think.

Sean:

Getting that we're near the end, well, one thing that really has stressed me out is the volume results. And I'm at the bottom of the spectrum on numerous fields. And I don't really know why my cellular health or function's like 17 and I'm like, whoa, that's a big dip.

Dave:

Well, has it changed over time?

Sean:

It did. It got worse. I'm in the supplements with them. I'm taking the four pills and the prebiotics. And I'm hopeful that that does something.

Dave:

Their prebiotics are pretty strong. The custom probiotics, I really like them. Okay. Let's just be straightforward. You did get sick with a popular disease that has metabolic considerations and you exercise really hard. So sometimes you need to recover. It can take months to recover your energy all the way. So you could just be looking at the body is in recovery, right? And if it's in recovery and you're smacking over the head with cold and eight hours a week of heavy exercise, even though you love it, it might just suck. I don't have the leftover resources to put into full on systems recovery.

You can also be looking at some membrane things. I'd refer you to the podcast I did with my friends from quick silver scientific. You'll find there's some really good stuff we talk about there around cell membranes and fats and things like Phosphatidyl Choline could be really, really helpful for you. They've got a cool formula that does that. And I'm also looking at something else interesting in your numbers that you've shared. It's that your TSH is 1.8. And this is your body's basically crying out for thyroid hormone.

Sean:

Well, I think that was the older one. It's gone down.

Dave:

How was it?

Sean:

This is the one from August, but the most recent, it's gone down. So I think I got that sent over to you, but-

Dave:

All right. I'm just looking at... Let me go down a bit more here. There we go. There's your testosterone, your testosterone's in the shit too. You got to get that fixed. [crosstalk 00:32:21]-

Sean:

It did come up recently, but it's still very low.

Dave:

Okay. This is a common pattern for people who listened to these before. How many times have you heard me say thyroid testosterone, thyroid testosterone? It's almost like I could do a whole episode with all I just do is say thyroid testosterone, thyroid testosterone. Right? And that's because thyroid is the energy hormone that gives you energy, energy to recover, energy to heal, energy to think, energy to focus and pay attention and stay on track like you would in ADD scenario.

And then testosterone is something that gives you desire to do stuff. I don't mean bedroom stuff, even just like to do stuff in general. And also, both of them are correlated with weight loss and the energy and cognitive function. So you're sitting here going, your body's... And I'm looking at the date on this. This is a December date. It says your TSH is 1.8. And your prior one before that was almost three. Guys, the anti-aging number for TSH is one according to the people I like. Some people say 1.1, 1.2, 1.3. All I do is I'm like, do you have symptoms of this?

And if your TSH is above one, it's worth paying attention to. And then you look at free T3 and T4. And again, I'm repeating myself for our longtime listeners, but TSH is the call for action. The body responds with T4. And if it does a good job of that, then if the body can convert T4 to T3 properly, it'll do that. And T3 is what gives you energy. But unfortunately, somebody suck at converting T4 and then they make something else called reverse T3. So your body's calling for thyroid more than it should be.

And your levels of T3 and T4 are not at the upper end of the reference range, although they're in the upper half of it, they're not at the very high end of it. I would want to bump up your thyroid meds a little bit more if your doctor is in agreement with that just to get your levels down a little bit and see if you like how you feel. And if you like how you feel-

Sean:

I don't have any thyroid meds. Should I get thyroid meds?

Dave:

Hell yeah. [crosstalk 00:34:19]-

Sean:

Should I be getting testosterone therapy?

Dave:

Oh, testosterone for you is even more likely than thyroid. Again, you got to run this past a functional medicine doctor, right? And I'm just looking at numbers. I've seen lots and lots of labs. I cannot, do not prescribe anything like that, but I can tell you, if these are my numbers, this is what I'd be doing. So your thyroid, your free T3 and T4 are relatively good. But I would say you still have some symptoms of this. I'd want to see you bump it up a little bit and get your TSH down to the antiaging level of around one, 1.1. And so it's still too high.

Whatever you did between August and now though, you've cut your TSH in half. So your metabolism is improving. Like your thermostat got turned up. So it's good. Iodine, I don't know what you did, but something worked.

Sean:

Hyperbaric, sauna space of trying to sleep more.

Dave:

Okay. So there you go. Just with biohacking without even thyroid hormone, you basically cut your TSH in half, which is remarkable. You can do a lot with hyperbaric-

Sean:

I cut that thing twice in that span of time.

Dave:

Oh, [crosstalk 00:35:22]-

Sean:

So not only has it gone up and improved, but overcome it twice.

Dave:

That's ridiculously awesome actually. So there you go. You're handling it well, and guys-

Sean:

Well, thank you to you.

Dave:

You got it. And the OxyHealth hyperbaric, it's the one that I used when I was recovering from the surgery I had recently on my foot and that's my go-to brands, one I've had for like eight, nine years. And they make some really good stuff. And that's the same one you're using.

Sean:

It's very cool seeing LeBron James and Marky Mark having it in their home, they're doing the right thing. So I figured we can't go wrong there.

Dave:

I want to see LeBron James and Marky Mark in the same one kind of like [crosstalk 00:36:00] space just to see what... Okay. Not really. I don't want to see that, but it would be funny. I have jumped in mine with Lana, [crosstalk 00:36:06] people like each other.

Sean:

I actually put me with my two children. I tried to do base lengths so that we could be doing Spanish instruction on an iPad to be doing the cerebral perfusion and it's stimulating the neurogenesis and angiogenesis at the same time.

Dave:

So my kids and I have been watching Mandalorian, can your kids wave their hand like baby Yoda and make things levitate yet? I'm just wondering.

Sean:

Not yet.

Dave:

Give them time. All right. You got one more number we need to talk about on this call, and it's your testosterone. The range on the labs you get runs from 200 up to 1,437. So it's a very broad range. That's because they're saying, "Oh, old guys have low testosterone, but that's normal. So you don't want-

Sean:

And gynecomastia now too because of low testosterone or the other stuff. The high and the low, but yeah.

Dave:

You've got your man boobs going on, huh?

Sean:

Yeah.

Dave:

Well, that's okay. I've had them since I was a teenager. And we'll talk about why that happens and what you can do about it as well. And mine generally are gone, but if I do something that causes inflammation, usually exposure to mold or eating something with lots of histamine in it, the next

morning, I'm like, "Dude, I think I need a bro because I've got my inflammation back." Why couldn't it get inflammation somewhere else like on my bicep, Jesus Christ?

Sean:

Well, I don't take it personally if The Rock had it and figured out how to persevere. He's cool.

Dave:

I'm not going to say which one, but one of the most prolific male actors in Hollywood with one of the most respected bodies, I had a chance to spend some quality time with him and we talked about all this stuff and he's finally like, "I had to have the surgery, man." He's like, "I'm just getting my glands removed. I can't keep doing this." A guy I really respect a lot. And what you'll find is a lot of the Hollywood bodies have been surgically modified because we do get inflammation around there, especially as you age. And the reason that happens is that the testosterone you do have is converting into estrogen, right? And then that's what gives you the man boobs.

In your case, you don't really have a ton of estrogen numbers here. You just have estradiol not estrone. And your estradiol is right in the middle of the reference range. So it doesn't seem like it's a major thing. What is standing out to me though, is that your free testosterone is 6.4 and it could go up all the way to 37 and your total testosterone is 280 and it could be as high as 1,400. Now a guy who's in his mid 40s who is athletic like you, I would want to see you right around the sweet spot of 800. That's where I target myself, between 800 and 1,000.

Now, your basically 5X or no, 3X, three and a half X below that. And if you go to your labs before your most recent ones, you were at 194, you're now at 281. So good news. You went up about 40%, no, was that 20%? No, you went up about 40% on your numbers from your last labs. So this one be a hyperbaric in sleep, but you're still woefully inadequate. If you were to go on testosterone therapy, and the normal ways are cream, you have young kids, don't use cream or topical. It's just not worth it. You get it on your sheets, you get it on the kids and weird stuff happens.

So your options are pellet or injection or maybe a patch, if you wanted to do a patch, but probably intramuscular or subcutaneous injection a couple times a week would be your optimal way to do it. Working with the doctor is a way to do it.

Sean:

And that's forever?

Dave:

Only as long as you'd like to have desire for life, sexual function, good muscle mass, less fat in your liver and you want to live a long time. But if you'd like to lose your zest for life and start a slow decline, you could go off at anytime.

Sean:

So the pill, if I was going to take the pill, because I mean, going somewhere and getting a shot-

Dave:

You mean the pellet, not the... You can't swallow testosterone. It doesn't work.

Sean:

Oh, what's a pellet?

Dave:

The pellet, it's like, something the size of a BB or a grain of rice. And they make a one stitch incision at the top of your butt and they stick it under the skin and for about four months, you've got a constant supply of testosterone

Sean:

As opposed to going somewhere three days a week and getting a prick somewhere, that seems kind of [crosstalk 00:40:28]-

Dave:

You don't have to go somewhere. They give you a vial and these tiny little needles and you just pull it in the needle and stick it in your thigh or your butt or something. It's not that hard to do.

Sean:

When I did Viome and they wanted to do the epigenetic for it, I couldn't even do that. So thank you, I'll look into the pellet and have a little, a thing in my butt.

Dave:

The pellet works. There's some people, even the idea of getting a pellet is just too repellent. So I did that. But what I would do, the first time I wanted to do an injection was for B12 years ago. And I ordered some of these things. I had no idea, I had no training how to inject myself. And this was the early days of biohacking, just like setting free our ability to control our biology. So I sat there, broke up with a little [inaudible 00:41:11], didn't know how to do it, loaded up the needles I bought from Russia or somewhere. I'm so glad it's easier these days. And I sat there, I'm like, I'm going to inject it in my thigh.

And I sat there for an hour. I'd wipe myself with alcohol and I'm like hovering over my thigh going, it is the most unnatural act of my life. And it's as big as walking across calls with Tony Robbins. And I've been blessed to have spoken in his events multiple times and I've walked across the calls. When I [inaudible 00:41:35] I'm like, I've already learned this fear response and how to overcome it and you just do it. And it's a smooth thing. But most people, you stand there and you're like, every fiber in my meat operating system says I will die if I do this.

And then you psych yourself up and you do it. It took me an hour to suck myself up for my first injection. And now, I don't know, I just stick it in there. You don't feel it. You just wiggle and it goes right in and you just do it. So it's a learnable skill. I promise you, if you can do water polo for two hours in cold water, you can stick a needle in yourself. It is so trivial.

Sean:

I'll probably have my wife do it. That way, she can let out her... If she needs to release on me and then I can blame her for sticking me for me chasing her around.

Dave:

Yeah. You can also say that you scream like a girl, which will be great. And there's something else here that's a little bit controversial I want to bring up before we come to a close on this. Your DHT, dihydrotestosterone levels are 17.7 and the very low end of the range is 15. And it goes all the way up to

100. So everyone says DHT, bad, because DHT, high levels of DHT especially in the scalp equals losing your hair. But having adequate DHT is part of muscle mass. My guess is you're a little bit low on that because you're low on testosterone. Quite low actually.

So if you talk with your functional medicine doctor, say, "Well, bumping that thyroid up to get my TSH down might be a good idea." Or maybe you're on a good path. You wait another six months, do hyperbaric, maybe it'll self correct. But testosterone needs some serious work. You're exercising so much. I don't know anyone in their mid 40s with your exercise regimen who doesn't have low testosterone. It's like, oh, you're going to run four companies. You're going to do the Kona Ironman and you're going to fly around.

Let me guess, you wake up and there's no kickstand in the morning. Your hair's getting thin. I'm like, yeah, how did you know? It's the overtraining thing. The hair's doing all right.

Sean:

Well, I got the hair. With the hyperbaric, the kickstand is working better.

Dave:

Good. Good.

Sean:

One last question, I got the BioCharger too.

Dave:

Oh nice.

Sean:

What do you think? Are there some recipes? I've got it in my office to be helping with my staff and with us, but people are afraid of it and they don't know. Is there any quick way to, or anything we could talk about on it or is it too late?

Dave:

We can just do a couple minutes on it. So the BioCharger guys were on the show a while back. This is a device that comes from the world of Tesla and Rife. It's a bioenergetic device. It's pretty expensive. And it's one that I've had for quite a while and it works. It works very profoundly. I used it last night and you can dial in certain states, whether it's healing states. When I put on the mitochondrial program, I get hot. Literally my body temperature rises from it because it's increasing mitochondrial function. That one might be helpful for you because you're dealing with mitochondrial issues.

We didn't talk more about why your Viome tests would show your mitochondria were so weak. My guess is it could be post-infectious. It also could be membrane composition or heavy metals. Or you mentioned you lose weight when you go on vacation, you ever had your house mold tested? Well, people who lose weight and feel better on vacation, sometimes it's stress, but quite often it's environmental. So that might be worth something. And that also would explain some of the man boobs because the mold species that grow oftentimes have xenoestrogens that are 1,000 times more estrogenic than what you find there.

So I grow man boobs very quickly around mold, some of it's inflammation, some of it's probably hormonal, but I don't particularly appreciate that. So that might be worth it, especially because you have

kids in the house. If you have even a little bit of mold, you got to track it down and get rid of it. You could try some Homebiotic or something, but I'd want you to know what's in your house. Homebiotic is my company I started that makes a bacterial spray that is naturally present in soil that provides opposing pressure to mold so that it actually likes to eat mold.

But that's something you can just... For me, like once a month, I walk around and inoculate, just mist the air and then that stuff is floating around and on surfaces in case any sort of mold wants to grow. All right. I think we've got a good game plan for you. You need to eat more before and probably after you exercise and you need to get [crosstalk 00:45:52]-

Sean:

You said, SuperStarch, look that up.

Dave:

Yeah. It's called resistant starch. It's a little bit different than the prebiotic fibers that I've been recommending. Those are just bacterial food. The resistance starches do get metabolized, but they get metabolized very slowly. And SuperStarch is the most common one, it's used by endurance athletes for the most part. Normally I don't recommend it, but in your case, you're essentially doing high intensity, cold endurance athletic stuff for two hours a day.

Well, Sean, I think we've got a good plan for you there. And I want to hear back in a while to get an understanding of what happened here, but anyone listening, the idea here is, okay, you're doing something good, exercise. We're doing a lot of it, right? You got other stuff going on and what is that effect going to have on testosterone? What is it going to have on inflammation? And it turns out maybe it was a little too much of that stuff. So if he's going to keep up the schedule, he's going to have to fuel properly and recover properly to support that.

And he may say, that might be too much or the timing may be wrong, but since he really loves it, it's keeping him happy, maybe it's worth doing, you just account for it. And that's the goal of biohacking.

Sean:

Got it.

Dave:

Thank you, Sean. Thanks for being a member of the Upgrade Collective, for doing 40 Years of Zen and just showing up as a biohacker. You've already improved your numbers so dramatically. And I think you've got further room for improvement based on what we talked about here. Get on testosterone or at least talk to a doctor about it. See what happens when you do that. You're not even going to believe how you look and how you feel when you do that.

Sean:

Thank you, Dave, for giving me an excitement of a pursuit of something that I didn't even think that I could control. So you've given me that awareness and hope. Thank you for giving me hope.

Dave:

Ah, you're welcome. Guys, if you'd love to be a part of an intervention like this, look at joining the Upgrade Collective. It's a powerful community. I want to see you there. Go to daveaspery.com and you can check it out. And once you're there, you can actually apply for an intervention like this. And I choose

interesting cases that I think will be educational for every listener of the show. Have a beautiful day. I'll see you on the next podcast.