

How to Eat Smarter and Trigger Your Metabolic Switches – Shawn Stevenson – #983

Dave Asprey:

You're listening to the Human Upgrade with Dave Asprey, and right before recording this, I just spent 10 minutes in a 50-degree cold plunge downstairs, so I'm all invigorated, full of endorphins and a little cold. But I don't think you're going to hear me shivering, because I'm not going to shiver.

Our guest today has probably never been in a cold plunge. Just kidding, he probably lives in one. It is none other than Shawn Stevenson, who runs a fantastic podcast, a very, very kind human being, I was just on his show. What we're going to focus on today, and my listeners always know that I'm going to tell you what you get out of an episode, at least what I think you're going to get, because I've prepared ahead of time. Just a general thing, and we're going to go wherever the conversation goes, but we're going to talk about foods to make your metabolism work better so you make more energy. You're going to learn about metabolic switches and what triggers them. It's a little bit different than what you've learned from me about just stimulating mitochondria. It's like how do you get that control of your biology?

You'll find that Shawn has really done his research and he's gone deep on it. We're going to talk about body fat, and we're going to talk about how your fat communicates through your entire body, and three different things you probably don't know about losing fat. I do want to say though, Shawn's a nutritionist researcher. He's got that just peaceful thing. If you've heard of the Model Health Show, it's a podcast worth listening to. Tons of the Upgrade Collective listen to the Human Upgrade and the Model Health Show. It's this interesting, science-backed, but also kindness and just being chill in a way that's not the, "You disagreed with me, therefore you're a bad person," the kind of arrogance that comes with sometimes keto or high protein or vegan. It's just a kind curiosity. Shawn, I always love hanging out with you and welcome to the show.

Shawn Stevenson:

Thank you so much, Dave. That really does mean a lot. I appreciate it.

Dave:

Your new book.

Shawn:

Yes.

Dave:

It's Eat Smarter.

Shawn:

That's right, yeah.

Dave:

Before that you had Sleep Smarter, so I was looking at my notes here, I'm like, "Yeah, this is Eat Smarter," so I knew what one we're talking about. There's all kinds of cool stuff you're working on, but let's just get straight into it. Do you measure your aging? Have you looked at your true age? How is your practice working? What can I learn from you? What can our listeners learn from you?

Shawn:

Dave, I am nowhere in the same ballpark with the self-quantification and testing and that kind of thing. For me, I'm nudging people towards paying really strong attention to how they look, feel, and perform, and to really tune into those metrics. And-

Dave:

All that matters.

Shawn:

At the end of the day, but all the cool testing that we have today, utilize all of it, for sure. For me, it's probably been about five years since I looked at any of those metrics as far as biological age versus chronological age. But of course ... This was probably, maybe I was 37, so biologically being eight to 10 years younger than I am on paper. So, it's been a while, but again, to steer the conversation back to, because I want to make sure that we do not miss this point with people being able to really unpack this concept when it comes to body fat. Because if we're talking about something that can accelerate your aging, of course it's carrying excessive amounts of body fat.

Dave:

Yes. It's so intimately tied to it, and hormones and everything else. Do you know anything about leaf lard in humans? Do we have extra special fat around our kidneys? I'm trying to eat it. Is there a different role for the fat around kidneys in visceral fat, because it feels like there must be some special power there that I don't know about.

Shawn:

Just to be clear, Dave said he's not trying to eat it. All right, just to be clear.

Dave:

During a famine, if it was necessary, I would eat the [inaudible 00:04:47].

Shawn:

Who's got the fattiest kidneys out there?

Dave:

It's the vegans, I know it. They have all that visceral fat. It's just right there.

Shawn:

This is so wrong, but so right, Dave. Yeah, I'm not familiar at all with the leaf fat when it comes to humans at all, the leaf lard. Yeah, that's a fascinating insight though. That really brings to mind something, because so much of our attention, I think, even in our culture where we are not just inside of a rote memorization standard of care medical paradigm, but really looking beyond that, we can get really obsessed with the liver and all these other detoxification channels, even our skin, the whole thing. But ignoring how valuable and powerful our kidneys are, this is no joke. These are some of the most remarkable freaking organs, truly. It's filtering how many pints of our blood every minute? It's just so crazy all the work that it's doing.

Dave:

It's ridiculous, and those are our two big detoxing and cleansing systems. I feel like kidneys never get enough respect. They're like the Rodney Dangerfield of organs.

Shawn:

Exactly, exactly. But by the way, just to unpack this one last piece, Dave, I don't want to forget this. When it comes to, and by the way, one of the last things that I mentioned, researchers, it was Boston University. Wait, was it? Yeah, Boston University School of Medicine, they found that an uptick in your intramuscular fat does in fact increase your level of insulin resistance, by the way. Again, we want to pay attention to all these things. This speaks to the importance of strength training of course, and actually using our muscles. What a concept.

But now to actually unpack literally what's in that fat cell, triglycerides. What's filling up that little fat cell that's just doing its job? It's triglycerides.

Dave:

Right.

Shawn:

So, what we're trying to do is to not just get our fat cell to "open up" and release the triglycerides, they need to be shipped to the right department and actually "burned" for fuel. Cellular respiration, beta oxidation, we need to get them to the mitochondria, because here's a not so little, fun fact that could be a not so fun fact. When we are engaging in the process of exercise, for example, and our fat cells are releasing their contents. We've got triglycerides in circulation. About 70% of them get reabsorbed, all right? They're not actually ... they're just getting released and then getting absorbed somewhere else. They're not actually getting "burned." We have to take the process to its completion. How does this process work? That's another thing that has some mystery behind it. Where the fuck does fat go when you lose it? It's such a strange thing. I see you're getting smaller, where is it going? The end point-

Dave:

I got two answers for you, but I'm curious where you are. Where does it go? What do you say? There's two random things that I learned about it, but I want to see where does fat go when we burn it? What do you know about that?

Shawn:

What it boils down to, is triglycerides are comprised of three atoms really. Carbon, hydrogen, and oxygen. These are fundamental components of our reality. It's really cool, but when it really boils down to it, that's all it is. It's construct of atoms, and they can be broken down by this process of oxidation. So, let's take a little trip, actually. Let's say we've got the activity of insulin getting the cell opened up, storing those contents. We're doing things to get this fat cell to open up and release, dump out some of those triglycerides. This could be ... we'll say it's the liver. We got glucagon doing its thing, which this is another part of that conversation that isn't talked about much with the pancreas, we just so focus on insulin. But I like to say the pancreas is a loving mother of these twins. They're not identical. One of them is insulin and the other one is glucagon, and they have very different personalities.

Dave:

These are the metabolic switches from Eat Smarter, that you go into in the book. Do you consider insulin and glucagon independent metabolic switches?

Shawn:

Now, even when I'm about to say this, nothing is happening in a vacuum, but when insulin is doing its thing, glucagon is basically sitting in a corner crying, all right? They're not really working as a team at the same time.

Dave:

Opposite sides of a coin, more like that.

Shawn:

Yes, yes. Glucagon has an important function, as well with getting our body to start to use some of this stored energy. But there's such a much closer relationship with what's happening with the liver versus some subcutaneous fat when it comes to glucagon. But that's a whole other story. Now we've got the triglycerides dumped out, and inside one of these switches involved in this process is hormone-sensitive lipases or HSL, all right. Hormone sensitive lipase. This enzyme is really, when it boils down to it, if we're talking about any activity in the body, enzymes are present. By the way, when we say the word enzyme, I'm struggling to articulate it because these are just proteins too. These are still proteins that have these roles, functional roles and also structural roles. So, enzymes need to be present for the magic to happen, as well as electrolytes, minerals.

This is why it was so awesome to see when you came in the other day and talking about how you're adding minerals to things proactively, because these things are required for these activities to happen. If you're deficient in key minerals, you could forget about this process happening efficiently.

Dave:

No enzymes, right?

Shawn:

When we're talking about breaking down, getting our fat cell to open the door to release this content and then to start to break down those triglycerides and use them for fuel. So, taking this pathway, now we've got it in circulation, and it's getting shipped to mitochondria somewhere. We'll just say it's onsite in our muscle. Now, those atoms are going to get broken down, and where is this? Where is its byproducts being released? We tend to think in our culture that it's getting, the best way to lose fat is going to be through sweating, right?

That's like a visual cue. We're sweating it out, which we do lose some of this energy via sweat, but it's a minute amount. We'll just say 5%, maybe less. The vast majority of the breakdown products of this fat burning is coming out via our lungs. It's coming out when we're breathing. So, we're literally fat whisperers, right? We've got Cesar Milan is the dog whisperer. We're fat whisperers. But here's the key. It doesn't mean just start breathing faster, and you're going to start expelling more fat. It doesn't work. [inaudible 00:12:03] We need those previous steps to get us to that point.

Dave:

So, we need hormone-sensitive lipase, which is going to work. We need glucagon. Then HSL, and then when we breathe, we're going to breathe out some of the fat. The other byproduct besides carbon

dioxide is water. So, we actually get cellular hydration when we're burning fat. I climbed, when I was in Peru, I climbed Huayna Picchu, which is about 1000 vertical feet on the backside of Machu Picchu. It's hot and it's high altitude. You're supposed to get dehydrated. But I was in ketosis, and I took some exogenous ketones before I went up and had a cup of coffee, and I walked to the top and backed down. I didn't drink anything because I wasn't thirsty, because I was burning fat and generating water internally. In fact, I gave my water away to a doctor who wasn't going to make it up the hill.

So, I was blown away at how big of an observation that amount of water from fat burning. It's the same thing camels. Do when your kids say, "Oh, they store water on their humps," but I always thought you could put a tap in a camel's hump and drink the water, but when you look inside there, it's all fat. So, I think most people are blown away by what you just said. Carbon dioxide, and then you had some water and that's where your fat went. Nowhere else. It's, how is ... where do carbs go when you eat those? How do they get out?

Shawn:

Well, first of all, the human body doesn't really store carbs.

Dave:

Exactly.

Shawn:

It's kind of ... it reminds me of my accounting class in college where we had LIFO, FIFO, right? Last in, first out with inventory and first in, first out. Carbohydrates want to get used very quickly, especially by the brain. Our brain is maybe 2% of our body's mass, but it's consuming like 25% of our caloric intake. One of the studies that I cited in Eat Smarter, your brain will gladly sop up like 50% of any amount of carbohydrates you bring in to your body. Again, just that kind of evolutionary wiring, your brain is trying to snatch up this quick source of energy to do shit. Not saying that it's a good thing, but it's just kind of the design. So, with that said, your body's going to shift away from burning your stored body fat or burning other fuels when carbohydrates are on the scene.

But again, we do have the process of cellular respiration and beta oxidation, when we're talking about what we're feeding the mitochondria. So, our mitochondria have the ability, and I mean, in our conversation when you said it, Dave, we tend to pigeonhole stuff when we're having this conversation. This is why I've been trying to give a caveat with stuff that I'm saying, especially when talking to you, because our mitochondria just being this energy power plant is a misnomer, or it is pigeonholing mitochondria into some idiocy, some like really small minute box, a pithy box. In reality, it's an environmental sensor that has a capacity to do all these different things.

Dave:

There are overlords who are secretly controlling everything we do and not telling us they're there, and it's like, mitochondria, I've got your number here. So, yeah, power plants, my ass.

Shawn:

By the way, when I said earlier about the us being able to sweat out a certain amount of the breakdown products of fat, the "burning fat process," ... By the way, Dave, throughout all of this chaos, the last couple of years of all of the "prestigious" peer review journals we have, the BMJ, I feel is done the best job at being a little bit more balanced. So, this was actually published in the BMJ, and what they did,

they tracked this process, because you could use some breathing apparatus and track the process of fat leaving your body. I'm going to share a study actually to see what happens when you eat a meal of processed foods versus whole foods. But in this study, they actually tracked the escape of body fat and it getting burned in the body.

So, I actually went and pulled the numbers up, because I didn't want to say 5% and it wasn't accurate. It was actually somewhere in the ballpark. What the researchers found was that it was about 16% of the fat we lose is through fluids, urine, sweat, and even our tears. All right? When you're crying, if you're having a little breakup cry or a happy cry, you're burning a little bit of fat potentially as well. But about 84% of the fat that the body's expelling is through the lungs, is through breathing.

Dave:

That's so cool.

Shawn:

Yeah, it's pretty cool stuff. But by the way, and so here's the study. So, using the same apparatus to see the pathway of how much energy are you expelling, how much fat are you burning? What the researchers did, this was published in the Journal of Food and Nutrition Research, and they took test subjects and gave them a meal of processed foods and a meal of whole foods to see how their metabolism was, would respond. Okay, caveat. The meal of whole foods was whole grain bread and cheddar cheese. All right? This was deemed to be the whole food meal. It's a little wholer, all right. It's a little wholer, versus the processed food meal, which was white bread and cheese product, which that's Kraft Singles essentially. It's not legally cheese. It's called Kraft Singles, because there's not enough cheese in the cheese. So, test subjects ate these various sandwiches, and they tracked all their metrics, and by the way, on paper, this should be the same fucking sandwich, the same metabolic impact. There was the same amount of calories, same amount of fats.

Dave:

Yeah.

Shawn:

Same amount of calories, fats, proteins, carbohydrate. On paper, they're the same. Now here's what happened. After consuming the processed food sandwich, they had a 50% reduction in calorie expenditure, in calorie burn, in the [inaudible 00:18:09] of energy, post eating that sandwich, versus when they ate the whole food sandwich. Something got clogged up where the body was not releasing energy as efficiently. So much, so again, 50% reduction. So, in this conversation where we say a calorie is a calorie like we are, so we shouldn't even be having ... that shouldn't even be talked about anymore. We're so far beyond that. How many studies do we need to know that the quality of food that you're eating matters, and eating fake food ... But right now in the United States, we have the average adult, their diet is about 60% ultra-processed foods. Now this is leaving out, and this is from the CDC. This is leaving out the point that for our children, it's about 67% ultra-processed foods. We're feeding our children garbage, fake food, and wondering why childhood obesity has tripled in the last 30 to 40 years. It is insane.

Dave:

It's funny, if I had to choose from those study groups, I actually would eat the white bread and the cheddar cheese. Now, I'm sensitive to casein and to gluten, so this would not be great for me. But the

whole wheat bread had a whole bunch of stuff in it, yet had more fiber, but it also had way more phytic acid and other enzyme inhibitors, because whole foods are not provably better. In fact, you don't eat the shell of the walnut. Whole food diets don't actually exist. They don't make sense. Just because you could eat it doesn't mean you should. Did you eat the whole tree that grew the apple? Where is the edge of whole food? What does it even mean? You shouldn't eat the apple seeds. They contained cyanide and they actually enough to harm horses. So, let's just throw out that idea of whole foods as being nonsense, because it can't even be defined.

But in that example, you're getting saturated fat, which is pro-metabolic from the cheese, and you're getting omega-6 fat, which is anti-metabolic as is shown in the reduction of calories from the fake cheese. So, we have a problem here, and if you see the bullies online with a million followers who spend all day saying you can cancel out a Snickers bar with a diet soda, these people, either they're evil or they're just so traumatized that they are willing to ignore vast swaths of data that have existed for more than 100 years that say a calorie is not a calorie. So, I love it that you're on team look at what you eat, instead of team you can sweat away a potato chip, because I don't think that's real.

Shawn:

Potato chip sweat. Dave, come on. There's so many nuggets in this episode already. All right. So, this is a great point for us to all make as a community, for us to start to open up our minds and keep it with it. We don't have to articulate this every time we talk about it, but there's a distinction between ultra-processed foods and processed foods, minimally processed foods like that we've been doing for thousands upon thousands of years. Extra virgin, extra virgin olive oil, thousands upon thousands. It's in biblical texts, and all these different ancient scriptures. It's on, it's engraved in pyramids. All right? This has been around a long time. How do you do it? You crush olives. It's processed now, cold processed if it's done correctly. It's a cold processing, and now we have something, researchers at Auburn University found that oleocanthal-rich, extra virgin olive oil is one of the few foods that helps reduce neural inflammation.

It had some kind, they still haven't pinned down why it has this action, but it's acting upon the blood brain barrier, helping to heal it, helping to repair the blood brain barriers, the specific words that they use. Now, blood brain barrier is what's getting damaged and allowing in this concept of a leaky brain, allowing compounds that shouldn't be in your brain into your brain, and creating more neural inflammation. By the way, this was from researchers at Albert Einstein College of Medicine. This is a huge topic, a big takeaway from today. What they found in their research was that neuro-inflammation is one of the biggest catalysts in our obesity epidemic. They stated that inflammation in the brain, specifically hypothalamic inflammation, was creating more insulin resistance and leading to excessive amounts of body fat, and that excessive amount of body fat and insulin resistance was creating more inflammation in the brain.

So, it's creating this vicious circle that people are fighting, trying to count their calories and Jenny Craiging it, and still eating processed food, and not getting out of that loop. Nobody's telling people that you have to reduce the inflammation in your brain in order to help this situation sort itself out more gracefully. What can we do? What would be considered a processed food, right? Olive oil's added to the mix. Not saying that this is the end all, be all. I don't have a dog in the fight. I honestly wouldn't. I don't care if olive oil's great or not, but just based on the data, and based on history, again, thousands of years versus canola oil that's made by Vinny in the factory like 40 years ago or whatever.

Let's just err on the side of what we've been doing the longest, and also not villainize the term process food, right? Because there's a big difference between ultra-processed food, which is taking corn at some point. It, through the addition of various types of sugar, artificial flavors, artificial colors, it becomes

lucky charms. All right? That is an ultra-processed food. It's lost all resonance with anything that even came from the earth.

Dave:

If you think about, is processing evil, let me tell you about one of my favorite super foods. So, you pick it. Most people let it sit for two days in river water, then you put it in the sun, then you dry it in a big heater, then you roast it, then you grind it, then you pour hot water on it, then you extract it, then you blend it with butter, and then you blend it with an extract of coconut oil called MCT oil that's made by fractionating the oil. Then you drink it. It's called bulletproof coffee. That is processed all the hell guys, and it works really, really well. If you were to say in the very latest step of the whole evolution of what I've been doing coffee, you can do the danger coffee where you have minerals that are layered into the process as well.

It's processed, processed, processed. So, when you barbecue your steak, it's a processed thing, fire processed. So, we can all just say processed isn't bad. Ultra-processed is bad, and some processes are better than others, and we can just be non-dogmatic and curious about it. That's the approach in your book that you have where it makes sense. Even olive oil, what you're talking about there, a new study, and I don't think it was the same one you're referencing, found that inside your neurons they actually can make oleic acid, which is what's most present in olive oil, and that it's contributing to BDNF and neurogenesis. So, it's likely that eating it, although that study didn't support eating it directly, probably helps. We know hydroxytyrosol, which is the primary, most potent antioxidant in olive oil, may be a part of that. But like you said, I think fixing the inflammation in my brain, as a guy who had Asperger's and ADHD and OCD and toxic mold exposure, and now I'm on the board of Amen Clinics with Daniel Amen.

Shawn:

[inaudible 00:25:49] Yes.

Dave:

Thanks man. But my brain was so inflamed, and it probably still is a little bit, but I think that's a part of my 100 pounds of weight loss was fixing my brain. No one's talking about that as a weight loss thing that I'm aware of except for you. So, kudos, man.

Shawn:

Thank you.

Dave:

That's a very solid point. Hypothalamus is in the brain.

Shawn:

Yeah. Thank you so much Dave. So, by the way, the hypothalamus, it's received the term over the years of a master gland, and what it really is, it's an integration point for our endocrine system and our nervous system. It's responsible for so much regarding, we'll just say the management of caloric energy, of managing our body temperature, of managing our stress hormones, sleep, appetite, It's involved in so much. But here's a key in why this connection with weight loss is really valuable with the hypothalamus, is that it's kind of like an internal thermostat in a sense of your "metabolic rate", like how much energy are you expending? It's not just because, it's not just because I have muscle on my frame. It's all

integrating itself, that data, with the hypothalamus. It's important, and what if we have inflammation in this part of the brain and it's just not working right?

The data is just, everything is just going to be discombobulated. What if we can stack conditions in our favor? Because I was talking with you today, I actually went and looked up head to head MCT oil versus LCTs. All right? This was in the book as well. [inaudible 00:27:29] This was a randomized double-blind study. This was published in the International Journal of Obesity and Related Metabolic Disorders. They had participants on a reduced calorie diet that either included supplemental MCTs or LCTs. After the data was compiled, it was revealed that the group who included MCTs, lost more weight, lost more body fat, and experienced higher levels of satiety. All right? Nothing else different in their diet. They're on the same diet. Just the inclusion of supplemental MCTs. All right? So, like Dave said, there is something really remarkable about it.

Dave:

MCT oil is now a \$1 billion industry category. But the guy who did most of the research, and some of it came out actually after I started saying, Look, you can feel it. You don't need the research. But a lot of the post launch, a bulletproof research came from Dr. [inaudible 00:28:20] at UC San Diego. He's the guy who came up with a study that showed two cups of coffee's worth of caffeine doubles ketones production. He's the guy who showed that C-8 MCTs raised ketones more than the rest of the MCTs. That was five years after I launched C-8 MCT as working better even though there was no study. But he proved why it worked better, because it was more ketogenic than the other ones. So, what you'll find is that you can feel whether something works. All of this came about because in the 90s, this anti-aging group that I eventually ran in Silicon Valley, they found one paper and said, Oh, coconut oil is more satisfying, "so they re-imported coconut oil to the US, because you couldn't buy coconut oil in 1992.

It wasn't at health food stores. So, they brought 55-gallon drums in for their own use, and suddenly now coconut oil is a health food, whatever it was 30 years later. So, we could feel it, but we didn't have the science, and what's happening now and what you've got in Eat Smarter, your new book, is you've compiled some of this newest science like that. You can say, all right, maybe you just felt something or maybe there was a study. But if you feel it, your goal, as you said earlier is, do you feel better? Do you have more energy, and do you look the way you want to look? So, I love the blend of science and data that you're putting in the book. End result is, it's not you are a study. It's how did you show up today?

Shawn:

Yes, yes, precisely.

Dave:

We haven't talked about thyroid, though. That's your other part of your book, which made me very happy. Talk to me about thyroid as a metabolic switch.

Shawn:

Awesome. So, we tend to say the HPA axis, right? Hypothalamic pituitary adrenal axis, but along this super highway, there are a lot of other organs and one of those being the thyroids. So, it's in close, intimate contact with everything else in our bodies. The thyroid is very, obviously metabolically active, but because of its charge in a way, it tends to attract, and I'm going to lean on you for this as well, a lot of environmental toxicants. A lot of environmental pollutants would find their home within the thyroid. That's unfortunate, and why, again, we're seeing so much with thyroid dysfunction. It's just our exposure, and the best thing that we can do on that front of course is cleaning up our organs of

detoxification. The liver, the kidneys are going to be super important in this in supporting your thyroid. We don't tend to think about that.

When our thyroid is abnormal and malfunctioning, we tend to just try to target a thyroid. Let me just take this thing and try to beat it into submission, when it's really about what's happening upstream and downstream. So, yeah, so, it's a big role player obviously. So, having that data, the ... I don't want to put the hypothalamus in the governor position. Especially, I live in la so the governor position is a little sketchy, but it has the ability to oversee a lot of things. Our metabolism itself, if there is a gland in our body that really carries the weight of that, little pun intended, is our thyroid.

Speaker 5:

Yes.

Shawn:

So, doing what we can to stack conditions in our favor for good thyroid health, and I know a lot of listeners have had their thyroid removed in one way or another, or they're on medication for this. This is not to villainize anything or any type of treatment, but where you are right now, you have the ability to stack conditions in your favor and to work with what you have. But this is also a nudge to everybody else. Like, this is serious business. Thyroid disease, abnormalities, dysfunctions are still on the rise. This is not ... We're nowhere, nowhere near out of the water with this. So, it's like a big call to arms for us to get as healthy as we can.

Dave:

One of the things that's happening that's near and dear to me is that environmental toxic mold, and guys, moldymovie.com is my free documentary, a professional, full-length documentary on mold no cost. Moldymovie.com. When you breathe these things, I don't know, maybe there's a hurricane that blows through and you get water damage, it triggers your body, not always, but a very meaningful amount of time, triggers your body to attack your own thyroid gland. It causes Hashimoto's thyroiditis and it can sensitize you to gluten and casein and things like that. So, if your immune system is going after your thyroid, which is your thermostat, that's one of these causes. Plus you get all these things that poison the thyroid like bromine, which is in flour, and the other things you're writing about in your book like fluoride. You end up with, Oh, it doesn't work very well.

I have been on thyroid replacement hormone, bio-identical thyroid, just like I've been on bio-identical testosterone, because my body wasn't making it right. I've been doing both of those since I was 26, because I was that sick. There is no moral failing for having the hormones of a 25-year old when you're 125. In fact, you will not make it to 125 if you don't. So, there's no negative judgment. If you're over 40 and you haven't had a thyroid panel, you are doing it wrong. If you're over 40 and your thyroid isn't fricking perfect, and you're not on thyroid hormone, you're probably doing it wrong. Maybe you can do it naturally with tyrosine and iodine, but it's okay if ... You know what? I'm just going to live a long time and feel great right now. I'm on a small dose of thyroid, because that's what my body needed. Just do it. You'll love it, and you'll keep the outer part of your eyebrows that I don't have, because I was at low on thyroid for so long.

Shawn:

Right.

Dave:

What did I say wrong there, Shawn?

Shawn:

Oh man, this is so powerful, Dave. Thank you so much for bringing this up, because everything should be an option. Today more than ever, we get into these diet camps, and we're infighting about minutia. Especially if we're not in the kind of conventional medical paradigm, we tend to think all medication is off the table, and that can be a problem as well. There are wonderful drugs that have come across in recent decades that should be on the table as an option. Don't defeat yourself or abuse yourself and not access something that can dramatically improve your quality of life and your lifespan, because of a diet dogma or a small-minded belief system.

Dave:

Oh, man.

Shawn:

Innovation is part of this. Innovation is part of our evolution. However, with that said, as Dave reiterates as well, it's about stacking conditions with the big movers as well. So, it's not just the thyroid medication, it's these other things too. I'm a healthy person, I'm doing healthy shit. I'm in great relationships. I am taking care of my body. I'm doing a cold plunge. What we tend to do, I think, is we tend to get into this, again, this dogmatic perspective where I'm using a blanket treatment. That's not what you're doing. You're stacking conditions. You're stacking conditions. [inaudible 00:35:51] You're talking about a big mover when you're talking about your thyroid. That's a big deal. So, with that said, I want to go back to a place of simplicity, because with all of these tissues that we're talking about, organs and organelles, when it really boils down to it, all of these things are literally made from the food that you eat. It's all-

Dave:

Yes.

Shawn:

... made from the food that you eat, and we're existing in a paradigm of healthcare where, and you know this Dave, some of the top cardiologists in the world, gastroenterologists and neurologists and whatever, ologist, ologist, ologist, and they go to school for 12 years to learn about their particular field of expertise. These are my friends and colleagues, learning about the heart, learning about surgery, learning about your arteries, all this different stuff. Very mechanical thinking. When they're looking at your heart, they are unaware that switch has not been turned off, that they're looking at the food that you ate. It's just not a part of their reality. Now, some of our friends and colleagues who've worked on themselves, and really started to look outside of their conventional training, which takes food out of the equation, which is criminal because you're fucking made of food. You're literally made of food.

Dave:

Yes.

Shawn:

So, to have that switch turned on to see the ... my patient's arteries are made from the food that they're eating. The blood within those arteries is made from the food that they're eating. We have, it is required. It is square one for us to pay attention to this stuff. So, with that said, I'm building up to this point to say something so freaking simple and overlooked, because it's not just food. Food is, oftentimes, it can even be a container for something else. By the way, when I'm talking about food be making up tissues of our body, a lot of this is the building of proteins. Even when we're talking about hormones, for example, and how our cells are talking to each other, they're proteins too. So, we need to get viable good sources of protein. Now, with that said, we say this stuff, but we don't really get it. We say this stuff, but we don't really get it.

Your brain is mostly water. Your body is mostly made of water. So, outside of the paradigm of all the things we might need to do nutritionally, getting this supplement or eating these particular foods, something so ridiculously simple is so overlooked. Since we started this conversation off talking about fat loss, let me share this study with you. This was really cool. This was published in the journal Obesity, and what they found was that simply drinking adequate amounts of water triggers lipolysis, first of all. This is the releasing of that stored body fat. That's not the end point where it's getting burned, but it starts the process, just drinking water. Just drinking water. Now, here's ... now if that didn't perk up your ears enough, this was published in the journal, Clinical Endocrinology and Metabolism. They found that drinking water also increases your metabolic rate through something called water-induced thermogenesis. All right? Tell me more. This isn't about the internal temperature of the water, because that's what I would think, just kind of a cognitive, like yeah, it's my body's heating the water to a certain no, it makes everything work better.

All right, That's at its core. Now here's what they found. The researchers discovered by drinking just 17 hours of water, just within a couple of minutes, it boosted their metabolic rate by 30%. They found that this extended for about 10 minutes and reached its maximum after about 30 minutes. That total kind of thermogenic calorie burn bonus from just drinking water was 25 calories. So, you do this two to three, I'm sorry, three to four times a day, this is an extra 100 calories you're burning just by drinking water, and it makes everything else work better. When we are just drinking water, we could either help or hurt the process with the type of water that we're drinking. Even say the type of water is a very strange thing, because we just tend, I think it goes back to our education again. We're kind of inundated with this idea that water is just H₂O, right?

It's just this very simple chemical makeup. But H₂O doesn't really exist in nature anywhere, by itself. Water is known as a universal solvent. It's always attaching to shit. So, it's really H₂O with other things dissolved into it. Right? So, it's interaction with ourselves foundationally, like you just said, being able to essentially change its structure, even changing its mineral content can affect how it's crossing over that bridge to even hydrate a cell. By the way, that little bridge one of those ways is something called a aquaporin, right? It's kind of this little protein portal. Right?

Dave:

Right.

Shawn:

So, this is still going back to, even as I'm saying this stuff, it's still protein, protein, protein. If I haven't stressed this enough, we've got to provide body with the building blocks to do this stuff.

Dave:

What are your top, say five best protein sources?

Shawn:

Oh. This is a tough one, Dave. This is a tough one. My cognitive bias, and I understand that I have a bias, is that I tend to look at what have human's been doing the longest? This is based on, I've been in this field for, I'm almost in my 20 year anniversary. It's coming up in November, that I've been in this space and doing clinical work, working as a nutritionist, for years, I fell into this conventional pattern that a lot of people fall into, which is if there's something I'm into, that's what the patient's going to be doing. If I'm raw vegan, guess what the best diet is, guys? If I'm paleo, guess what the best diet is?

Dave:

Yeah.

Shawn:

Thankfully, I had the audacity to question my biases at that time and to see, wait a minute, this is working great for 60% of people with normalizing their blood sugar over here. It's working for 40% of people with weight loss over here. What about the 60% who's not getting the result? What about the 30% over here who's not getting the result? So, starting to question why aren't people not getting the results? What we tend to do in healthcare is we blame the person, not the practitioner who's providing them the information. Right? So, it's their fault. They won't listen. So, I went through that as well. They're just not doing the diet right. They're not doing what I say. They're lying to me. I see they're recording their food. They're lying. Where's the Snickers? Where's the Twinkies? I know you're lying. But in reality, I was giving people one size fits all thing.

When I learned to finally start to dial in what's best for this person, at this time in their life, right now, and also being aware that this might change in three months, in a year, and giving them the tools to help to keep pivoting, what I started to do was ask things like your heritage, Where are you from? Where are your parents from? What country? What are their diet look like, your grandparents? So, I started to really look at people's history and where a closer kind of association, this is when I was studying nutrigenomics, nutrogenetics, like you've got a genetic template. It's not everything, of course. We know this, but there are certain things that are going to resonate better with you and your makeup right now than other people. So, let's kind of investigate what your ancestors were into, and start to integrate some more of those foods. So, my wife, being from Kenya, goat, goats popping, nyama, nyama choma. All right, goat is popping in Kenya. For me, not so much. It's not even, it's that there isn't even an attraction there. Goat, sheep. Of course, they had beef as well.

But, so to bring all this back to my point of, for me, leaning on history and what feels best with my body right now, Dave, which you can ask this question a year from now, and it might not be the same. My favorite sources of protein. Number one, right now, I'm really just, I have such a resonance with eggs. I just do.

Dave:

Nice.

Shawn:

Eggs is, eggs is one. This is no particular order. Definitely, beef obviously is a big one. Bison.

Dave:

The gold standard. Yeah.

Shawn:

Bison is another one. A huge, I'm a huge fan of salmon. Just really, again, I'm just really vibing with it right now. Salmon isn't the end all, be all. There's so many other fatty fish and lean fish. Then, one more. I think that was four. Yeah, that's four. One more would be shrimp, like shrimp and then the crustaceans. I'm really into that as well. This is just what I'm vibing with right now.

Dave:

Nice. So, you didn't say chicken, how come?

Shawn:

All right. Okay. Not chicken, is not off the menu. I'm not an anti-chicken person. But if we look at what we've been doing the longest, it wouldn't be chicken. All right?

Dave:

You're right.

Shawn:

It would be, before I moved to LA, I lived in Wildwood, Missouri. I born and raised in St. Louis, Missouri. In my backyard there would be these wild turkeys that would just show up every now and then they roll deep. They're like little raptors. They're kind of creepy characters out there in the wild, and they're looking for a problem, by the way.

Dave:

Oh yeah, they're mean.

Shawn:

Exactly. Whereas with chickens they've really, again, we have this resonance. Human have domesticated them significantly over the years, but it's not to say they're not a Bible source. There's just better. So, I would much more likely I'd go for turkey than chicken, but not to say that I don't have chicken from time to time as well. I actually had chicken yesterday.

Dave:

There you go. But in terms of favorite sources, you're there. I went through all the types of animal protein, and ranked them according to minimizing Omega-6 fats, and maximizing amino acid ratios, and ended up with bison and beef at the top, and then goat and sheep. Then after that it was goose, turkey, duck chicken at the very bottom, and probably guinea pig and gerbil or something, if you're into that eating weird stuff you might have in Peru, would be even lower, but I'm not, or rabbits. There's just no fat in there. So, that was kind of how I looked at these, and with eggs, it's weird, because they're a great source of protein, but they're also a common allergen, so then there's a little asterisk by those. But I think egg yolks are profoundly healing for most people.

Shawn:

Yeah, totally agree. 1000%. Also, this gets into another interesting angle, which is the fat construct of the body and the brain. So, I keep talking about the importance of proteins in these building blocks, these amino acid building blocks from high quality sources, but also fats. When we say the brain is

mostly made of water, and then structurally, if we talk about the structural kind of, we'll just say dry weight of the human brain, the next category would be fats. It's incredibly important. But what are we actually talking about here? We're talking about this really interesting combination of things like phospholipids, right? Cholesterol. So, paying attention to these things, and we can get these things dietarily. We can get a source of phospholipids. Eggs are wonderful. Every one of these categories, egg yolks will hit it.

Right? If we're talking about the omega-3s, if we're talking about phospholipids, cholesterol. Most of our body's cholesterol by the way, it's getting made by our bodies, and also your brain. Talking with one of my friends, neuroscientists out of NYU, Dr. Lisa Mosconi. I don't know if you know her, but-

Dave:

Yeah, she's great.

Shawn:

She shared with me that, and I love it because she's looking at the brain, and she's well versed in nutrition. She was sharing with me how even with, when it comes to fatty fish, she was like, the fish eggs are really where it's at. Salmon roe and caviar, just bar none. They're just the best sources of things like phospholipids, and these are required, these are structural fats for the brain, and if you're deficient in these things, your brain is just going to kind of do a patchwork job. We really got to take care of our brain cells, because there are a few places in the brain that make new brain cells. So, of course, we've been talking about the hippocampus for a while, the memory center of the brain being able to have neurogenesis. But outside of that, there's not much data on it.

Now, I'm going to tell you something else that I'm going to have my eyes on, Dave. I think that the human brain, I think that just even with stem cells and new stem cell therapies and even the capacity within our own bodies, I think that there's more to the brain as far as creating new cells than just the hippocampus. I'm looking at that on the horizon, especially in a healthy human being who has some different advents and exposures. So, I'm just kind of keeping my eyes on the horizon. Because there was a time, not long ago, when it was thought that these are the brain cells that you get, and that's the end of the story.

Dave:

Right. Now we know neurogenesis and hippocampus, lions mane, all that kind of stuff. BDNF does that. But, new study Paul [inaudible 00:49:20] work. I'm actually an investor in his new company, doing this as a pharmaceutical. It's Psilocybin, plus lion's mane, plus niacin, and they've got direct evidence in trials of whole brain neurogenesis. That's without adding stem cells in your cerebral spinal fluid, which I've done. So, I think you can grow your whole brain back. In fact, the axolotl is the spirit animal and the logo for Upgrade Labs. The axolotl is, it's a vertebrae. It's an amphibian you find in Mexico. It's endangered. It's endangered, because this animal can regrow any part of it, including its brain. You can smash the brain stem, and it'll grow back. It's endangered because of that. People think if they make axolotl skin creams, it'll give them younger skin.

I don't think that's how it works, but the axolotl's ability to regenerate is legendary. So, that's why it's in the logo of Upgrade Labs. It's that and naked mole rats are the two most fascinating animals, with spinal cords that have these powers. We know animals can do it. So, we know maybe we can learn how to do it.

Shawn:

Yeah.

Dave:

So, I love it that you brought up those abilities, because I'm all over that so much. Well, your book is exciting. Your perspective is honest and fresh, and I think it's worth reading because of, in particular, your view about metabolic switches. We talked about hormone-sensitive lipases. We didn't get into the interview about adipose triglycerides levels or monoglyceride lipase. But when you go to the full reading of your book, you go through and say, here's the switch is what puts fat in. Here's what puts fat out. So, for people who are saying, how do I lose weight, or maybe even how do I gain weight, understanding how to flip a switch and what switches are available, it's not about genetics, although that always plays a little role.

You talk about the microbiome. I just think it's a new framework for looking at how to eat and how to manage your energy levels and your fat levels, and that's exactly why I want to have you on the show for it. So, Eat Smarter is also a name that you could remember pretty easily. So, guys, Eat Smarter. Sean Stevenson. What's the best URL for people to learn more about you? Obviously the Model Health Show is a big deal, but what's your favorite url?

Shawn:

Yeah, thank you so much, Dave. Yeah, when people listening to this amazing podcast, they could find me. It's called the Model Health Show, and it's the modelhealthshow.com.

Dave:

That's easy,

Shawn:

People can find all my social there. Also, of course, I'm at Shawn Model on Instagram, so Dave and I do a lot over there. Also eatsmarterbook.com, or you could find it anywhere that books are sold. Very, very grateful. We had a national campaign with Target stores and we're kind of featured on this INCAP thing and Target for big idea nutrition books they don't usually do that to give that [inaudible 00:52:19].

Dave:

No, they don't. It's hard to get in there.

Shawn:

There's something really special about the book, when it was presented to their decision-makers. I'm very, very honored by that, but we've got so much more of a mission ahead, Dave, and we share this, just getting folks educated and empowered and having a variety of tools at their disposal. But most importantly, of course, is just being able to fall in love with learning. That's really what I work to do, is to make all of these things that we've even talked about, palatable, entertaining, and also easily understood. This goes back to that Einstein quote, I love it. It changed my life. "If you can't explain it simply, you don't know it well enough." So, being able to really sit with things, a lot of my time that I'm spending kind of off the grid is in research and in contemplation, and just sitting with things, questioning things, questioning my biases, questioning questions.

This is not what a lot of people are doing today when we're so kind of just in this triggering mindset, and we're in this constant consumption. We're not, we're consuming, but we're not processing, actually

having the ability to metabolize the information, and then to be able to share that with other people. I, that's really the superpower, and also you have that superpower as well, and I appreciate you.

Dave:

Likewise, Brother. I'm looking forward to coming down to LA. We'll shoot another couple of episodes. We got a lot more to talk about. Next time we'll get into the microbiome, which is in your book. We didn't even touch on it. So, thanks for continuing to just help people figure out how to do all this. For everyone listening, you actually can own your biology. You just might need to learn some new skills here. This is a worthy book, so check it out. Guys, I will see you all in the next. We've got about 50 new members of the Upgrade Collective, so the studio audience is always getting bigger. You wouldn't know this, but during the interview, I asked some questions from audience members.

So, literally there's a chat window open, and you guys are telling me what to ask Shawn. So, go to daveasprey.com and you can sign up for my mentorship group where I have calls with you guys, and answer your questions, but you get to help me ask better questions of Shawn. So, remember, you want to go to the modelhealthshow.com, check out Shawn's podcast and his new book, *Eat Smarter*, and you want to go to daveasprey.com. Check out the Upgrade Collective. Be part of the live audience. Because it's fun. See you next time.

Research studies mentioned in this episode:

- [Hypothalamic inflammation: a double-edged sword to nutritional diseases](#)
- [Oleocanthal-Rich Extra-Virgin Olive Oil Restores the Blood–Brain Barrier Function](#)
- [International journal of obesity and related metabolic disorders - Supplementation with medium chain triglycerides](#)
- [The British Medical Journal. "When somebody loses weight, where does the fat go?"](#)
- [The Journal of Clinical Endocrinology & Metabolism - Water-Induced Thermogenesis](#)