

THE MODEL HEALTH SHOW

EPISODE 754

The Hunger Habit & The Surprising Truth About Willpower

With Guest Dr. Jud Brewer

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SHAWN STEVENSON: Welcome to the Model Health Show. This is nutritionist and bestselling author, Shawn Stevenson. On this episode of the show, we're gonna be taking a peek inside of our brains, inside of biology and look at the science behind our hunger habits and the surprising truth about our willpower in relationship to food. And this is going to blow your mind. We're also gonna look at the remarkable connection between dopamine and curiosity. We're gonna look at some aspects of human life that trigger the release of dopamine because food is one of those things that makes us very attractive and has a seeking behavior behind it. But we're gonna look at some other aspects of dopamine that we can engage and get some pleasure out of as well. You're also going to discover what the hunger Sasquatch is. Keep an ear out for that one. And we're gonna look at some science back ways to take control of our hunger and appetite.

SHAWN STEVENSON: I'm telling you this episode is packed with powerful insights and one of the most brilliant minds in the world of health and wellness today. Now, before we get to our special guest, keep in mind our nutrition does play a huge part in our drive towards what foods we're choosing and our drive towards hunger and cravings, and in particular, our cravings for hyper-palatable ultra processed foods. Now, a specific nutrient has been well documented to help our biology to make changes that make those foods less attractive. Now, this was published in the peer-reviewed journal, *Appetite* in 2014. And the researchers uncovered that chlorophyll, the green kind of lifeblood of plants, chlorophyll can aid in weight loss and reduce the urge to eat hyper-palatable foods. Now, what is the densest, most bioavailable source of chlorophyll that you're gonna find? Well, that's gonna be found in a food that actually got its name from its chlorophyll content, and this food is called chlorella.

SHAWN STEVENSON: Also, in a double blind placebo-controlled study published in clinical and experimental hypertension, these researchers found that chlorella was able to normalize blood pressure of test subjects with diagnosed hypertension. This is serious business. Chlorella has been utilized for thousands of years, and again, it got its name due to its high chlorophyll content. And there are mountains of studies affirming how remarkable it is for

human health. And in addition to chlorella, I love chlorella, but when it's combined with spirulina, it's familial algae. I like to think of this in terms of the fast and furious family. I don't get algae, I got a family. If you think about this combination, spirulina is the most protein-dense food ever discovered. It's about 71% protein by weight, and it's one of the most dense sources of chlorophyll as well, but also a rare compound called phycocyanin, which is well-established to stimulate stem cell activity in the human body.

SHAWN STEVENSON: That's crazy. All It stimulates something called stem cell genesis, the creation and mobilization of stem cells. What other foods do you know can do things like that? Alright? Ultra-processed foods definitely can't do that. Honey Nut Cheerios, definitely can't do that. Pop-tarts definitely can't do that. Stem cells become effectively any cell that we really need to regenerate our tissues. And this combination, chlorella, spirulina, ashwagandha, and several other organic superfoods is all in the Organifi Green Juice blend. Go to organifi.com/model right now and you're gonna get 20% off their award-winning green juice blend. Get all the benefits of chlorella, spirulina, ashwagandha and more. Go to organifi.com/model. That's O-R-G-A-N-I-F-I.com/model for 20% off store-wide. Take advantage. This is a staple in my family's home. It's been like that for many, many years. Organifi Green Juice is amazing. And without further ado, let's get to the Apple Podcast Review of the week.

ITUNES REVIEW: Another five star review titled “Finall”y by Diane. Shawn, I have been in your world since day one. That led to so many transformations in my life, which created the ripple effect into healing and helping those I love and those around me. My husband has changed his lifestyle with my guidance and healed from cardiovascular disease. He's alive, thriving, and fit, healthy and sexier than ever. You walk beside us everyday, and for that, I thank you.

SHAWN STEVENSON: Wow. Wow. I have no words for that. That is so powerful. Thank you so much, Diane, you are amazing. You are an absolutely amazing human being. Thank you so much for sharing your story and your insights and your dedication. I know that it's not always easy, but I see you and I'm grateful for you. Thank you, thank you, thank you. And if you have to do so, please pop over to Apple Podcast and leave a review for the Model Health Show, it truly does mean a lot. And without further ado, let's get to our special guest and topic of the

day. Judson Brewer, MD, PhD is an internationally renowned addiction psychiatrist and neuroscientist. He's a professor in the School of Public Health and Medical School at Brown University. And his 2016 TED Talk, a simple way to break a bad habit, has been viewed nearly 20 million times. Dr. Jud Brewer has trained Olympic athletes and coaches, government ministers, and business leaders. And his first book, *The Craving Mind*, was published in more than 16 languages. In his second book, *Unwinding Anxiety*, was an instant New York Times bestseller. And now he's here to help us understand the hunger habit. Let's dive into this conversation with the amazing Dr. Jud Brewer. Alright, we've got Dr. Jud Brewer here in the house. How are you doing today, man?

DR. JUD BREWER: I'm good. Thanks for having me.

SHAWN STEVENSON: We've got some nice tea going, some green tea blended with pu-erh, and so we're just kinda vibing out right now.

DR. JUD BREWER: [chuckle] We are. This is good tea.

SHAWN STEVENSON: Thank you. Thank you. Yes. And your book is phenomenal. It's very timely as your work tends to be, even if it's not necessarily planned. But right now, a lot of folks, especially during this time of year, want to change their habits. And if you could, let's start off by talking about willpower. Alright. Let's talk about this approach. If we wanna change our habits, and maybe we have a habit that is not necessarily serving us and we wanna change it or break that habit, can we just focus on grinding our teeth, white knuckle it and just like get it done? Let's talk about willpower. Is that the way to get there?

DR. JUD BREWER: Yeah. Well, I think anybody that's tried knows the answer, [laughter] which is, boy, I wish it worked. I wish we could just put some willpower in this tea and drink it up.

SHAWN STEVENSON: Right. [laughter] We could sell that...

DR. JUD BREWER: Oh, here's my willpower. Oh yeah.

SHAWN STEVENSON: Sean and Jud's willpower tea.

DR. JUD BREWER: [laughter] Yeah. The funny thing is that, boy, there's a relief on the Parthenon in Greece that highlights how long this willpower debate has been going on. So this, I don't know how old that is, but that's like hundreds, thousands, I don't know how old that long. Very old. Very old. [laughter] And what they're suggesting, it's this horse and this rider. And the horse denotes the passions, and the rider is reason, is willpower. Who's stronger? You gotta learn how to ride that horse. So in modern day, we chalk that up as like we'll just get some more willpower. What's wrong with you? Grit teeth do, it.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: And unfortunately, from a neuroscience standpoint, that's not how the brain works. And so it's this story we tell ourselves, is this heuristic that says, oh yeah, there's something wrong with you. If it's dieting, just make sure you don't... You eat the salad instead of the cake. Just make sure you exercise everyday. Make sure you do this. You should, you should, you should. And the formula's, the calories in calories out formula. Same one I learned in medical school, it is still accurate, yet how you get there is not what we'd like to think because it would be so simple if we could just say, train your willpower, just grit and do it. From a neuroscience standpoint, ready for this? Willpower is more myth than muscle. And what I mean by that is, we can think that we've got some willpower or that we can learn willpower, but even... So even if there is such a thing as willpower, let's give it that. [chuckle] Let's give it that. It seems to be seated in the prefrontal cortex.

DR. JUD BREWER: This dorsolateral prefrontal cortex is a part of the cognitive control part of the brain. Now, that is the youngest and the weakest part of the brain from an evolutionary perspective. So guess what happens to the prefrontal cortex when we get hungry, when we get angry, when we get stressed out, when we're tired, it goes offline. It runs for the hills, and it says, hey, habit brain, take it from here. I can't handle this. [laughter] So from a marketing perspective, if there's a diet plan, it's brilliant because they can say, hey, just follow our formula and you'll win. And, oh, you can't follow the formula? There's something wrong with you, not our formula. So sign up for another year.

SHAWN STEVENSON: So for this conversation, we're gonna move forward with willpower. We're gonna call it willpower Sasquatch. [laughter] Alright?

DR. JUD BREWER: Okay. I love it.

SHAWN STEVENSON: It's a myth. Maybe it's real, maybe it's not. But let's talk about what is real.

DR. JUD BREWER: Okay.

SHAWN STEVENSON: All right. So before we get into how to change a habit, it's so important, and I encourage this with everything in our lives, let's address the what, like what is it? What are we actually dealing with here? We often try to change things that we don't even know what we're dealing with.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: So what is a habit? How are our habits formed in the first place?

DR. JUD BREWER: Well, habits were... This goes all the way back actually, evolutionarily conserved back to the sea slug. So the first organism that has an organized nervous system that can be studied, that the nerves are big enough to be studied. And in fact, Eric Kandel got the Nobel Prize back in 2000, showing that humans learn from memory the same, basically the same way as sea slugs. And the way that works is three elements. You need a trigger or a cue, a behavior, and then a result. Or from a neuroscience standpoint, a reward. So think back to our ancient ancestors that had... They didn't have refrigerators or food delivery, they had to remember where food is. So they're out on the Savannah in the woods foraging. They find a food source. And so there's the trigger. They see the food, they eat the food, there's the behavior.

DR. JUD BREWER: And then their stomach sends this dopamine signal to their brain that says,

remember what you ate and where you found it. So it's actually set up to help us remember things like, oh, the food is here. So when I go back to the cave, I can remember where to come and get it tomorrow. The same is true. So that's called positive reinforcement because you remember something's rewarding and you go back to do it again. The flip side of, or the negatively valence side of, is called negative reinforcement. And that's where we learn through fear conditioning. So basically if you're out foraging, you see the saber-toothed tiger, you see, oh, there's danger. And you run, there's the behavior, and then you survive. You don't become their lunch. There's the reward. And you learn that's a dangerous part of the Savannah, don't go back there. And so positive and negative reinforcement work the same way. It's basically something that triggers a behavior and that behavior results in something rewarding to our brain. Does that make sense?

SHAWN STEVENSON: Of course. And it's kind of scary in a sense because this is happening automatically. And unfortunately, wires can get crossed as far as we can have something where we experience a reward that eventually, maybe even very quickly hurts us.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: And these are some of the habits that we often want to change. And I love this. This is the first book that I've come across where your language is more congruent with mine, where I don't wanna label something as good or bad because we have so much data on that language. And so with a cheat meal, for example, with a cheat meal, people might have a good intention about it, but the way that their mind is wired up, we don't associate many positive things with cheating. Whether it's in a test context or relationship or sports, whatever the case is, we often see that as a bad thing. And now I'm cheating like am I a bad person? Or I'm eating "bad food," and we put so much into that. So you said helpful habits or not so helpful, or reframing these things. Why did you do that?

DR. JUD BREWER: Well, language really affects our lives. And so the words that we use matter because they put language to our experience and then affect our experience. And so if we are in... This is also a habit of humans. We're in the habit of judging. That's good, that's bad. So we're already adding a layer of complexity that we don't actually need to add to it. And when

something's judged as good or bad, then we're already adding complexity where we're thinking, oh, this is... I wanna do more of this. I don't want... And it actually gets in the way of the learning process. So I think of this more as, hey, what's helpful from a health standpoint? What's unhelpful from a health standpoint? And ideally, we try to place judgment off to the side. It's not easy to do, but if we can, then we can bring in a mode of curiosity and kindness. We can get to this more later 'cause I think of these as superpowers. But when we can be curious about what's actually happening, we can see the data more clearly, and it helps us learn more quickly.

SHAWN STEVENSON: Now, what are your preferred terms for people to maybe start to borrow instead of a good or bad habit?

DR. JUD BREWER: Yeah, I think helpful, unhelpful are probably one of the better ones that I've come across. But I think people should find their own language that works and really think of it this way, it's like, what's moving me toward optimal health and what's moving me away from optimal health? Instead of good, optimal good, so we can think of what's moving me toward what's moving me away. It's kind of like are we aligning our path so that we're moving in the right direction?

SHAWN STEVENSON: This is a game changer for me already. Just sitting here talking to you, you're adding complexity with your labeling. How you label things. You're adding complexity.

DR. JUD BREWER: Yes.

SHAWN STEVENSON: And that complexity can be the very thing that you get caught up in that net. Now with this being said, and I know this is a big question, but the dieting industry, dieting itself has been happening in particular, we'll just say the last 50 years, but the diet industry has been like this really booming thing. And for some reason, we keep gaining more and more and more weight with all of these options and these different diets. Can you talk a little bit about why diets aren't working for people?

DR. JUD BREWER: Well, they were... If you look at it from a neuroscience standpoint, if you

look at one of the first true dieting industry behemoths, Weight Watchers, founded back in 1963, so 50, 60 years, that was around before the field of neuroscience was even founded. It was more biology and things like that. And so neuroscience came along later and then started questioning this dominant paradigm of, hey, what is it... Is willpower really a thing? And so why doesn't it work? Well, it was never... It's a good story, but it doesn't mean that the story is true. So if you really look at how behavior changes, it has nothing to do with willpower. There's actually an equation that these two researchers came up with in the 1970s, Rescorla and Wagner, that is still in use today because it is still true.

DR. JUD BREWER: Like over and over it gets proven. And what they found was that basically your current reward value of something is based on how rewarding it was in the past, plus an error term. So wait a minute, there's no willpower in that equation. There's no history. Like the closest that history comes in there is what sets up the reward value of something. So I think of it as when we set up how rewarding a behavior is that habit, I think of it as set and forget. So you set a reward value. And often with food, like let's say cake, we go to all these birthday parties as kids, and we start to associate cake with ice cream and presents and fun and laughter and all that stuff. That's that composite reward value that all gets laid down where our brain says, oh, see cake, oh, cake is a good thing.

DR. JUD BREWER: And when we were five, we could eat cake for breakfast, lunch, and dinner. We'd probably be alright. [laughter] Can't quite do that in adulthood so much. We start to see the sugar rush in the crash. And so here, our brain is just set up on this set and forget the habit loop where it says see cake, eat cake. And so we can then try to bring in this willpower and say, well, stop doing that. [laughter] There's a great skit from the 1970s, also '70s, [laughter] a lot of good stuff came out of the '70s. And so there's this guy, Bob Newhart, who had a skit. He plays this psychologist on his show, and this woman comes in trying to change trying to... She has this fear that she talks about. And basically he just says, okay, ready? She's like, okay, should I take notes? He says, don't. You don't need notes. And he goes, stop it. [laughter] And she's like, what? He says, well, stop it. Stop doing that. And I don't want to ruin the skit 'cause it is worth watching.

SHAWN STEVENSON: We'll put in the show notes.

DR. JUD BREWER: Yeah, exactly. Five minutes is pure. Well, one, it's genius the way he wrote it. But two, he's highlighting back in the 70s, this willpower myth, yet everybody's like, well, nah, whatever. It's a skit. It's funny, but it's true. And that goes back to this research that suggests that, hey, the only way to change a habit is to update the reward value of the behavior in our brain. Okay? That's the key. That's what that error term says. And to get into it, you can... So let's use cake as an example. So let's say that I have a certain reward value of cake in my head. And there's a new bakery that opens up in my neighborhood. So I go to the bakery and I see some cake and I eat it and I'm like, wow, this is the best cake I've ever had. Oh, oh, I'm like drooling all over myself. And so I get what's called a positive prediction error where my brain expected it to be so good 'cause there's a bar that my brain is set. It beat the best. And so it's positive prediction error. I get this dopamine spritz in my brain that says, hey, remember this place. They make good cake. So I've learned something. I've learned that they make good cake. On the other hand, if I eat the cake and like, I've had better, I get the negative prediction error. I also learned something dopamine spritz in my brain that says, hey, forget about this place, they gotta work on their cake. [laughter]

DR. JUD BREWER: So I also learned, hey, not so good, but notice how both of those require one thing, which is awareness. I have to pay attention. So if we... This is something that we zoomed in on was, hey, so it seems to be awareness that changes habits, not willpower. So we double clicked on that and we actually, my first clinical trial way before I started working with eating, we did a study with smoking cessation. And so a lot of my patients come in, they've tried everything to quit smoking. They can't do it. Medications, willpower, everything. So what, hey doc, help me quit smoking. I'm like, okay, go home and smoke. And they look at me like I'm crazy. [laughter]

DR. JUD BREWER: My doctor just told me to smoke. Doesn't he know that smoking is bad for me? 'Cause they all know this. I know this too, but I say, pay attention as you smoke. And they come back and they're blown away. They're like, "How did I not notice this? These things taste like cr*p." [laughter] I'm like, yeah, cigarettes don't taste very good. That's why they put menthol in them. That's why they make vapes taste like mango because nicotine is a toxin that your body is saying, dude, don't put this in me. And so when we pay attention, our body

can tell us all that we need to know, which is why are you smoking? Not you shouldn't smoke because it's bad for you. That's up in our head. It's our body. Our body is the... It's our body is so much stronger. I think of it as our feeling body is much stronger than our thinking brain. So we can think smoking is bad for me, but if we feel and taste and smell that smoking is crappy, we get a negative prediction error. Ready for this? In our first randomized controlled trial, five times the quit rates of gold standard treatment for smoking cessation, five times the credit rate.

SHAWN STEVENSON: Incredible. That is crazy.

DR. JUD BREWER: Yeah. Yeah. So awareness can do a mic drop here because it's like, "Look, dude, no willpower needed, all you have to do is pay attention." And so it's funny in our smoking program, this was working pretty well. So we developed this app called craving to quit and we were pilot testing it. And somebody comes to me and says, "Hey I'm changing my eating habits using your program for smoking." And I was thinking, okay, typically people will substitute eating for smoking. And so I made this assumption that they were just eating. Most people gain about 15 pounds when they quit smoking. And they said, "No, no, no. I'm actually cutting down on my snacking." And I said, "Dude, can you say that again?" Yeah, I'm cutting down on my snacking. Oh, wait a minute. We can actually use these same awareness practices to help people with eating. 'Cause I'm an addiction psychiatrist. I was focusing on smoking 'cause I was really struggling helping my patients there. So I was like, wait a minute, we could actually use this for eating. It's the same mechanism yet eating is harder than smoking. You don't need to smoke to survive, but you do need to eat.

DR. JUD BREWER: So there we got really interested in exploring, okay, how far can we take this? And we even did... So we developed this app called Eat Right Now, where we could actually embed these awareness practices and have people pay attention as they overeat. Another study, we published this a couple of years ago where we had people pay attention. We gave them this tool, this craving tool, and we had them pay attention as they overate. Are you ready for this? It only took 10 to 15 times of them paying attention as they overate for that reward value to go below zero and they shift their behavior. And so we're seeing, oh, this isn't about willpower, this is about awareness, awareness, awareness, awareness. It's really,

really powerful.

SHAWN STEVENSON: Yeah. Now herein lies the challenge about that. Like you said, so many people were doing this behavior and they didn't realize that they had access to that thing that's always there, they weren't paying attention to paying attention.

DR. JUD BREWER: [chuckle] I love that. Yeah.

SHAWN STEVENSON: And so awareness, obviously like you're saying, this is paramount in our lives to be able to pay attention. There's so many... I think an added layer of challenge here is that there's so many things that's pulling our awareness away.

DR. JUD BREWER: Oh Yeah. Yeah. It is an attention economy for sure.

SHAWN STEVENSON: Yeah. And so with this being said, to note the fact that awareness is really the key for habit change, how do you actually do it? [laughter] All right? And you lay this out, of course, in the book, but I wanna give folks an understanding of how this works because as you shared, you kinda stumbled on this as a side effect, helping people to stop smoking. It's just this translates, oh, this is for everything.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: And it's really a game changer. So let's talk about it.

DR. JUD BREWER: Yeah. I'd be happy to. So here, well, the key first piece of this is to leverage that reward value equation. And so that negative reinforcement through the negative prediction error is really important. So people have to see very clearly that overeating is not rewarding because they can tell themselves that they shouldn't overeat or they can feel for themselves what overeating feels like. So that's the first piece. And when people start to notice it, they suddenly get interested and they're like, "Oh, I never noticed that before." So it naturally starts to awaken our curiosity. And here, I think of curiosity as this superpower because curiosity has several characteristics that are really interesting. One is that it's

intrinsically rewarding. So curiosity itself feels good. We don't have to go buy curiosity at the store, [laughter] it's something that we have. You don't have to put it in your green tea. Curiosi-tea [laughter]

SHAWN STEVENSON: Nailed it. That's it. That's it. That's our name of our tea.

DR. JUD BREWER: Not intentional, but you get the idea.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: It's something that 's intrinsic, we don't have to drink it. And we can, so one it's there. It's for us to awaken ourselves. Two, when you compare curiosity, now I'm stuck on that. When you compare curiosity to a craving, for example, like a craving to eat another bite of cake or something like that, which one feels better? Cravings, they feel contracted. They're itchy. They're urgey. They're set up to drive us to do things. That's what cravings are for. They're survival mechanisms that say, go get food or go get your cigarette or go get whatever, go check your social media. So here, that itchy urge doesn't feel as good as just being curious about the physical sensations themselves. And I started to learn this with my patients where I started exploring with them, just what does a craving feel like? I remember one of my patients who had actually come in, he said to heck, if I don't smoke, my head's going to explode. And I'm like, "Okay, chief complaint, head exploding. Haven't had that one before. Let's roll with it. So I started asking him, this is, I was working at the VA hospital. So this is one of the veterans. And I said, "What's head exploding feel like?" And he started describing the physical sensations like, oh, tightness, tension, burning, all this stuff. And I went to my whiteboard and started drawing the intensity. I was like, is it getting stronger, stronger? He's like, "Yeah, yeah, yeah."

DR. JUD BREWER: And then it peaked and it started to go down and his eyes got really wide. And I said, "What did you just notice?" He said, "Well, I usually smoke before it goes away, and I just realized that cravings will go away if I don't do anything." And so this was this big eye opener for him, this realization, the cravings, one, are physical sensations, they come and go on their own. And all you have to do is be curious and be with them. And so the more we can

start to really just explore, oh, what does a craving feel like? That can help us shift out of the, oh no, here's a craving I have to fight with it and here's that willpower thing again, that willpower myth, the Sasquatch. [laughter]

SHAWN STEVENSON: Yeah. The Sasquatch willpower. Oh, that's so, so good, man. All right. You broke this down into three parts in the book. And so you have all the setup science as well laid out in the first section of the book, but then you go into part one, part two, part three. And really just kinda break down. We just led into it a little bit, but mapping your habit loops.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: All right. So the mapping part, so is that the awareness and paying attention?

DR. JUD BREWER: Well, awareness is critical for all three parts, but let's start with the first part. So if we can't... If you can't see what it is, if you can't map it, you can't work with it. So habits, you've gotta bring them into the light. And so we bring these habits into the light through awareness, through curiosity like, "Oh, what's this habit?" So for example, we can start with our eating behavior. And first off, I wanna give a shout out to the stories that I talk about in my book. So my patients and the people in our Eat Right Now program were just so generous with sharing their stories with me that I could share those stories with other people to help them so they could see this is what it's like in real life. And their stories ranged from like stress eating, to just mindless eating, to overeating, to binge eating, into being addicted to fast food. One of the people in the book, like really talked about how that was his drug. And so I just wanna give a shout out to them for being so kind and generous with their stories. And with that, I highlight in the book how the first step for any of us is to map out what the habit loop around eating is because there can be multiple ones, there can be one that's dominant, there can be ones that show up at certain times of day or under certain circumstances, but they all share the same structure, that trigger, that behavior, and the result.

DR. JUD BREWER: And the nice thing here is, the trigger is not important. People might think, what? Trigger? 'Cause most of my patients come in, they're well, if I could just avoid or tackle or fight with my triggers, then I could win. Well, triggers only set the process going, they're not what drive the process. So I say, forget about the triggers. If you can recognize them, if you can name them, great, but don't worry about it. Focus on the behavior. So is it mindless eating? Is it overeating? Is it stress eating? Is it boredom eating? Is it sad eating? Is it happy eating? You get the idea.

SHAWN STEVENSON: It's a lot of kinda eating.

DR. JUD BREWER: Yeah. Well, all of these things get associated with eating, but in the absence of actual hunger. So these are the hunger habits where we think we're hungry, but we're not actually needing food. I think the differentiation here is between homeostatic hunger, which is the actual need for food and hedonic hunger, which is all the emotional eating.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: So they've got to map that piece out like why am I going to food? What is driving that? Is it boredom? Is it stress? Is it sadness, whatever? So seeing what that is and how they're eating. So I think of it as the why, what, and how. Like why are they reaching for food? What are they reaching for? Is it comfort food? There's a reason it's called comfort food. And then how am I eating it? Are they just pounding it? Are they just mindlessly eating it, or are they really paying attention? And all of those are important. But that first step is just mapping out that loop. So trigger behavior results. And if they can't notice the trigger, just the behavior and the result. So does that make sense?

SHAWN STEVENSON: Absolutely. That's profound in itself. Just paying attention to the reason that we're eating. We usually don't do that, and this could be, like you said, so many different reasons especially in the fitness space, this could be you're eating because you have to, it's a time thing, it's a math equation that you're doing this on. This could be entertainment, is a big thing. Just like a taste for something or something interesting. This could be, as you

mentioned, comfort food. We could be depressed and looking for that little hit of serotonin from some carbs. But we don't think about it and so it's just happening. Like we're not really paying attention to our reality, our lives, and we're not thinking about our thinking. And so even this, like if people get this, this is gonna change your life completely. Just being able to pay attention to why you're doing some of the things you're doing.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: Be in your body, in your space, in your brain, in your own mind and paying attention. It's kind of freaky. It's like some Neo stuff when you start to pay attention, like what, it's like...

DR. JUD BREWER: Like pill blue pill. Yeah. That awareness is critical. And the beauty of it is that I can... As I'm taking a history with an intake with one of my patients, like that's what I'm listening for. So certainly their story is important and we can zoom in on, okay, here's some of these habits that I'm hearing. Am I getting this right? So first, [chuckle] I can help them see that I'm actually listening. [laughter]

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: Which is already helpful. 'Cause the medical space is a mess right now.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: So it's like yeah, I really do care 'cause I do. Like I love working with my patients. So one, I'm listening and I'm reflecting it back to make sure I'm getting the story right, which is also helpful. And I'm helping them start to make these connections. So can they see what's the trigger? What's the behavior? What's the result? And I'm like, "Hey, can you see that this is a habit loop?" And then I explain it very briefly, like we just talked about. It's like, "Hey, if it's pleasant, you're gonna want more of it. If it's unpleasant, you're gonna want less of it." That's pretty straightforward. Your brain set up that way.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: And then they say, "Oh, wow. I'd never realized that that's where eating popcorn while I'm watching a movie. And when I don't have the popcorn, I feel like there's something off," because that's just what they're used to. Seeing those habits illuminates them so that they can now see how their mind works. So you gotta see how your mind works before you can work with your mind. And that's where steps two and three come in, working with your mind.

SHAWN STEVENSON: Yes. So good. So good. So we've got the mapping part, we've just introduced, and obviously you go into much richer detail in the book. Part two is changing the reward value of these eating behaviors in our brains.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: Let's talk about that.

DR. JUD BREWER: Yeah. So we touched on that a little bit earlier, but this is really where this Rescorla-Wagner equation comes in, and also critically depends on awareness. So basically, if we know this is how our brain works, that our brain's not gonna change a habit until it sees that it is actually better than expected or worse than expected. So let's start with the worst than expected. I have people pay attention as they overeat. And as I mentioned in that study, relatively quickly, people start to realize overeating does not feel good. The holidays, when somebody overindulges in a holiday, their stomach says, "Dude, why did you do that again?" They're like, well, I wasn't paying attention. The food looks good, or we're in good conversation or my family's a mess [laughter] and so I eat to numb myself, and that numbing is actually not that rewarding.

DR. JUD BREWER: So they pay attention as they overeat and they start to... Their body tells them everything they need to know, which is, "Hey, overeating, not so great." So they start to become disenchanted with that behavior. And we can distill that down to one question, which is, what am I getting from this? Not thinking, what am I... I shouldn't overeat, but a

feeling. What does it feel like to overeat? That's critical. It's the feeling body. That's what drives all of the behavior change.

SHAWN STEVENSON: All right. The feeling body versus the pain body, Eckhart Tolle is coming up, the pain body. [laughter] So it's being able to pay attention through all of these processes, obviously, but this is where we pay attention to, as you mentioned, the negative prediction error.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: And seeing, are things matching up with our prediction?

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: So is this happening in this portion?

DR. JUD BREWER: Exactly. Yeah.

SHAWN STEVENSON: Okay.

DR. JUD BREWER: That's it.

SHAWN STEVENSON: Got a quick break coming up. We'll be right back. I wanna share something with you that has been fueling my workouts recently. Numerous studies, including a study published by the Federation of American Societies for Experimental Biology, aka the FASEB journal, have found that exogenous ketones can be up to 28% more efficient in generating energy than glucose alone. And because of this, something that, listen, there are so many different supplements that are out there on the market. Very few things do you experience a change on the first day. Now, this isn't true for everybody, but for me, this was the case. I was shocked. I actually took time stepping away from everything else that I was doing as far as supplementation around training, gave myself a break, and then did this with a lot of focus and intention to see, hey, what are the kind of results that I could see by

utilizing Ketone IQ? And I was really just blown away. My stamina was significantly increased, but more so, my recovery afterwards. It was really impressive. I just felt like I could do so much more than I normally do. And I'm somebody who really prides myself on being a high performer and being able to really challenge my limits and do exceptional things.

SHAWN STEVENSON: And so to do what I was typically doing and didn't have energy left in the tank, I was just like, wow, this is something special. I need to tell more people about this. So right now, you can head over to hvmn.com/model and they're going to give you 30% off of your first subscription order. It'll be taken off automatically at checkout. And I'm telling you, this is the real deal. Go to hvmn.com/model. Checkout Ketone IQ today, and now back to the show. Now moving on in this part of the equation, I think we miss out on a lot. And so part of the reason I think that I've been able to help a lot of people is because I understand some basic tenets about humans, just from observation. Again, like we love freedom. We love to be able to choose. We don't like being told what to do. And we also, we really enjoy food. We've got this really immaculate flavor palate. And you hear Gary V talk about wine, for example. Like there's hints of like a rusty nickel and like recently shit*** on dirt. It's just like all the... How do you taste that? First of all, how do you know what that tastes...

DR. JUD BREWER: I could say, how do you know so much about nickels? And do nickels even rust? [laughter]

SHAWN STEVENSON: That's the thing. And so it's just like we have this incredible palate, but a big part of that is our nose, our ability to smell.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: And people would know, for example, if you're not feeling well, you have a sinus blockage or whatever, your food doesn't taste right. And part of this helped us to make healthy food choices, safety of food, being able to tell certain things. Also, the sound is big too. I recently talked about the sonic chip experiment. This actually won a Nobel Prize. It's the Ig Nobel Prize, which is like science that makes you laugh, but that makes you think. But all of these things combine for a certain experience when we eat food. The sound, the smell,

the taste. And that is something that our... We're talking hundreds of thousands of years in this kind of current model of this interaction with food.

SHAWN STEVENSON: And then to suddenly villainize it, like if it tastes good, spit it out. I've got colleagues, it's just, it's been one of those things. You're ignoring how we're wired up in our biology. We have been seeking out tasty things forever. All species, they go after things that are attractive to them for whatever reason. And so knowing that this is the case, let's lean into the fact that we love and enjoy food and pay more attention to certain aspects of it.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: This could be the quality, this could be their surrounding experience. Let's proactively intelligently put in place a reward that has to be equal to or better than that other thing.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: And that's the part... It's so crazy at this point, and I love talking to you about this. It's like, it's so often left out. It's just like, again, use your willpower. If it tastes good, spit it out. All these different things, you have to replace it. You have to add in the reward intentionally to get the real sustainable change.

DR. JUD BREWER: So here's the crazy thing. The reward is already there. And so...

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: Let's frame this a little bit. How many people can think back to the last time they ate their favorite treat? Ice cream, cake, chocolate, whatever. And think back to, you've got the ice cream in your mouth and you're already thinking about that next bite or that next lick of ice cream or that next bite of cake. You're not actually enjoying what's in your mouth, so you are wasting food. If it's... Like there's food for calories, but like, if you're enjoying a really good dessert...

SHAWN STEVENSON: Yeah. You're missing out on all the pleasure that's there.

DR. JUD BREWER: The whole point is that it's a really good dessert, so don't spit it out. Actually, pay attention as you eat it. And I think I write about this in the book. I call it the Pleasure Plateau. And my friend Dana Small, who's a food scientist at Yale, she actually did this for a PhD thesis where she fed people basically their favorite chocolate while she was measuring their brain activity. And at the beginning, people were like, this is awesome. I love chocolate. And then she would just keep feeding them and feeding them and feeding them. And what she found, and I think the record that was 74 square some chocolate before somebody's like, uncle, uncle, get me out of here. What did I sign up for? But all of them go from, this is amazing, I want more, to this is awful, eating another piece would make me feel sick.

DR. JUD BREWER: And what that highlights is, I think of this as the pleasure plateau, which is a little bit tastes good if we really pay attention. And with each bite, our body's gonna say at some point, okay, that's enough. And if we don't pay attention, we're gonna hit that pleasure plateau and we're just gonna go right off the cliff of overindulgence. And so if we pay attention with each bite, one, we're enjoying the food, that's what it's for. Two, we can see it, we can sense and feel and taste and smell where our body's saying, okay, that's good. That's good. Save the rest for later. And we can save the rest for later. [laughter] If it's really good, why not enjoy it twice as compared to like not paying attention and just like shoveling it down and craving that next bite? So it changes the experience completely because we're, one, really enjoying the food. And two, we're naturally stopping without willpower, without anything except awareness. It's our body is so amazing in that way. It's got everything, all we have to do is tap into its strength, it's power, it's wisdom.

SHAWN STEVENSON: Yeah. And this is part three is, looking at the reward part of this. Now I've got a question for you. And again, we talked about how our awareness is fractured today in a way because of all the stuff this external stuff vying for our attention. We also live at a time where food isn't the same food. We've got food scientists, brilliant food scientists who are manufacturing things that are manipulating those pathways. Things like bliss point or

vanishing caloric density. So it can distract our brains, essentially, because through evolution, if there was one flavor, like you said, and we're taking that thing over and over again, that particular flavor, our brain's gonna be like, enough.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: But what if there's just the right amount of this and a little bit of that, then it becomes more difficult when we're talking about some of these ultra processed foods.

DR. JUD BREWER: Yeah.

SHAWN STEVENSON: Now what about that terrain?

DR. JUD BREWER: Yeah. Well, I'm gonna guess that you don't have a Doritos or a Cheetos tree in your backyard. Because there's no such thing. And I love my favorite peer-review journal, The Onion. [laughter] They had a headline that says, Doritos celebrates this 1,000,000th ingredient. 'Cause they are dialing it in every day. And there's a reason that those both are like electric orange, and the Cheeto's a great example of vanishing caloric density where it's like, well, did you just eat something? No. Better try it again.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: Try it again. So those are designed for addiction. Michael Moss wrote brilliantly about this where all these things that they engineer from feeling like we're in control with Lunchables. Like kids feeling like they're in control of what they're eating to the, all of these bliss point manipulations to get people just addicted to things.

DR. JUD BREWER: The funny thing there is, addiction is not pleasant. And so when we're just mindlessly consuming or feeling like we are under the spell of the whatever the chip or the ultra-processed food is, that's not actually very pleasant when you pay attention because you feel like there's this drive that you have no control over. Addiction is continued use despite adverse consequences. That's what I learned in residency. Continued use despite adverse

consequences. Well, if you look at food and somebody eating an entire bag, continued use despite adverse consequences when they feel like they can't stop. So they're designed for addiction. If we pay attention, we can start to see pretty clearly that they're actually not very rewarding. And so we hit that second step where we become disenchanted when we see, oh, addiction doesn't feel very good. None of my patients with addiction say, this is great, [laughter] help me be more addicted, doc. They come to me for the opposite. So the third step I think of this is finding the BBO, the bigger better offer.

SHAWN STEVENSON: Not to be mistaken with the BBL.

DR. JUD BREWER: The BBO? What's the other BBO...

SHAWN STEVENSON: BBL.

DR. JUD BREWER: BBL. Which I don't know.

SHAWN STEVENSON: That's getting the butt. The butt implant, all the things.

DR. JUD BREWER: The BBL.

SHAWN STEVENSON: Your innocence.

DR. JUD BREWER: I know. I will look that one up on Google after our interview. Hopefully, there'll be some graphic pictures.

SHAWN STEVENSON: [laughter] There absolutely will be. There absolutely will be. Make sure no children are around.

DR. JUD BREWER: Yeah. That's right. Let's say that for the BBL...

SHAWN STEVENSON: Not to be mistaken with the BBL, but go ahead.

DR. JUD BREWER: Yes. Not to be mistaken with the BBL. So the BBO, this actually came from my high school days. You know, it's like you set up a date and you're all looking forward to it on Friday, and then suddenly your date's like, oh, I'm washing my hair, or whatever. Lame excuse. It's like, oh, they found... Somebody else asked them out, and they're bigger, better offer than I am. So I'm relegated to watching television while they go out with the other person. So the bigger better offer, our brain is set up this way where it's gonna have preferences, it's gonna say A or B. If B is better, I'm picking B. So if one, if we can start to see that our old habits are not that great, that's what that second step is about, becoming disenchanted, we can then give our brain something better.

DR. JUD BREWER: And the nice thing about better is that it's already there. It might simply be paying attention as we eat and stopping before we're overstuffed. Because what feels better, stopping before you're overstuffed or being overstuffed, duh? It's a no brainer to our brain. So bringing that awareness in, again, awareness is critical for this third step as well. Just seeing like, oh, how much is enough? How much is enough? That in itself can be more rewarding, that bigger better offer. Another way to help actually with all of these steps, I think of this curiosity as this bigger better offer, because it feels better. It feels better than the craving. So if we have a craving for something and we're doing, let's say, we're I think of it as rest and digest. Like if we're going like 14 hours between eating dinner and breakfast or something like that, like the time restricted eating. At first, when somebody's starting to get used to that, they can have a craving.

DR. JUD BREWER: If they snack a lot at night, they might have a craving for a snack, even though they're not hungry. And so getting curious about that craving helps them work with and ride that craving out instead of trying to fight with it or like try to distract themselves or whatever. So they can disarm that craving. They can see the craving doesn't have any power if you bring in the curiosity because you get curious about it and suddenly, oh, it's just these sensations. It's not that big of a deal. And so curiosity itself is tremendously powerful.

SHAWN STEVENSON: And we inherit, we have so much of it.

DR. JUD BREWER: Yeah. We do.

SHAWN STEVENSON: We're a curious species. Now this is another great tie in here is our curiosity is why social media. Again, we've got brilliant engineers and scientists leveraging our curiosity. We're looking for that next thing, next thing, next thing, next thing, next thing. What I would advocate for us to do for the most incredible scrolling you'll ever experience is to use that curiosity within because that show is off the charts. You know what I'm saying? We have some of the craziest thoughts and like brilliant thoughts and creativity and beauty and mucky nastiness. There's so much going on internally. If you can direct some of that inward. And this is something, as you mentioned, our ancestors figured out a lot of this stuff and kinda advocated for certain things.

SHAWN STEVENSON: Know thyself. Know thyself. And truly today, it is rare to come across a person who really knows themselves. A lot of our thoughts even, they're regurgitated. We're just pulling in things from the environment and just, we're not really in contemplation and thinking. And so to be able to really take advantage of this, and I'm so grateful because you created this resource right now, especially when, again, there's a lot of things vying for our attention. We know in our hearts and in our core, we desire to be better. We wanna feel good and we want to enjoy this life. And with that said, it is a complicated terrain. And what you're doing is you're giving us a roadmap to understand what's happening in our bodies, in our minds, in our brain.

SHAWN STEVENSON: And it is incredible. It is such a gift. And you've put this together for us. It's a great resource. I love the cover of the book. Of course I got an early copy. And there's actually some kind of hidden messages here on the cover that people might see or notice. But even if you don't consciously notice, your mind is picking this information up and you're really addressing a need. And this, even though this is the Hunger Habit, which is the name of the new book, this can address so many areas of our lives. And so that's the cool thing about your work is that it translates over. And so right now, folks, depending on when you're listening to this, you can pre-order the book or go and get the book right now at bookstores. Again, depending on when you're picking this up. If you pre-order the book, you've got a cool bonus with that app that you mentioned. Can you talk about that a little bit?

DR. JUD BREWER: Yes. The Eat Right Now app is where it's great forum and medium for us to actually do research where we can do studies and see how these reward values change and how quickly they change and all of that. So the Eat Right Now app was, and it's actually one of the first, maybe the first alternate curriculum that's recognized by the CDC, where it focuses primarily on this awareness on mindfulness. Whereas the previous ones that are largely based on the 30 years of CDC, largely willpower based approaches, sorry to say. But this app, this Eat Right Now app is really helpful. And in our first study, actually, this is led by Ashley Mason at UCSF, where she found a 40% reduction in craving-related eating when people started using the program. And the idea here and all the concepts are laid out even more thoroughly in the book, but the idea here is awareness is so powerful for change, and we can put down the self-judgment that comes with feeling like we've got willpower failure.

DR. JUD BREWER: It's not our fault. This is something that if we learn how our brain works, we can learn how to work with our brain and we can be kind to ourselves in the process, which is also key. I see so many people beating themselves up, judging themselves, feeling like there's something wrong with them.

SHAWN STEVENSON: Yeah.

DR. JUD BREWER: In my Unwinding anxiety book, we talk about how anxiety is something that people experience. But with eating, people feel like this is something that is wrong with them if they're not eating properly. Like it's more under their control than anxiety is, but it turns out both are driven through this same habit mechanism.

SHAWN STEVENSON: It's amazing. Amazing. Can you let everybody know where they can pick up a copy of the book?

DR. JUD BREWER: Sure. The easiest place is just to go to my website, drjud.com, drjud.com, and they can find links to the book and places to buy it.

SHAWN STEVENSON: Awesome. And again, that bonus is there with the app. This app is 40%.

DR. JUD BREWER: Yeah. So the app, the Eat Right Now app is where we found this 40% reduction in craving-related eating. And then we publish papers after that showing this reward value drop when we added this craving tool in. So people that pre-order the book can actually get an early copy of the craving tool where they get to start working with it. And also I think they get a free month of the Eat Right Now app.

SHAWN STEVENSON: So this is a truly science-backed app. This is an actual... This wasn't made by Vinny down at the app store.

DR. JUD BREWER: [laughter] In his garage. Hey, you want an app? [laughter] No, I'm a scientist. I'm a physician. I took a Hippocratic oath to first do no harm. And as a scientist, I would wanna make sure that whatever I'm doing is actually working, and if it's not working, I'd wanna learn why so I could make it work. So everything we do is not just science-backed, but it's actually based on the science that we, that my lab at Brown University has actually performed.

SHAWN STEVENSON: Awesome. Awesome. Can you share that URL one more time?

DR. JUD BREWER: Sure. It's drjud.com, drjud.com.

SHAWN STEVENSON: Drjud.com. Listen, this book is fantastic and it's very easy to read as well. I love the opening of the book and also the fact that we went to school in the same city.

DR. JUD BREWER: Yeah. St. Louis.

SHAWN STEVENSON: St. Louis. Shout out to everybody in St. Louis. And you're just doing amazing work right now, and we're gonna put links to everything in the show notes. And I just appreciate you, man. This was really awesome. Thank you so much for sharing your brilliance with all of us.

DR. JUD BREWER: It was my pleasure.

SHAWN STEVENSON: Awesome. Dr. Jud Brewer, everybody. Instead of getting into a battle with our finite willpower and giving credence to the craving Sasquatch, we're leveraging our biology, we're leveraging real science and understanding. And I love episodes like this. I love conversations like this to get a peek behind the curtain and see how our biology, how our mind is working in relationship to our choices. But again, nothing changes unless we change. So it's taking this information and utilizing it in our lives today. Speed of implementation is one of the greatest qualities that we can develop, and I encourage you to develop that quality this year. Put this into action. Share this out with somebody that you care about. Sharing is caring. And when we utilize our relationships and have other folks on the same mission as us, it tends to make the process easier and more graceful. So please share this out with a friend or family member. Send this episode directly to somebody directly from the podcast app that you're listening to. You can send it as a text message. You can take a screenshot and share it on social media, on your IG story, on a post, send it as a dm, just share this out with somebody that you care about.

SHAWN STEVENSON: Share it out with your community. And listen, we've got some epic masterclasses and world-class guests coming your way very, very soon. So make sure to stay tuned. Take care, have an amazing day and I'll talk with you soon. And for more after the show, make sure to head over to the modelhealthshow.com. That's where you can find all of the show notes, you can find transcriptions, videos for each episode. And if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome, and I appreciate that so much. And take care, I promise to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.