

EPISODE 214

Hijacking Our Appetite And Being Wired To Eat – With Robb Wolf

Shawn Stevenson: Welcome to The Model Health Show this is fitness and nutrition expert Shawn Stevenson here with my amazing co-host and producer of The Model Health Show, one and only Jade Harrell. What's up Jade?

Jade Harrell: What's up Shawn?

Shawn Stevenson: How are you today?

Jade Harrell: Today I am ultimup.

Shawn Stevenson: Ultimup?

Jade Harrell: Ultimup.

Shawn Stevenson: Okay, this sounds like some kind of a soda, or as my grandmother would say sodi.

Jade Harrell: Does she say sodi?

Shawn Stevenson: What does that mean, what is ultimup?

Jade Harrell: I'm on another level, I'm on a new level. Ultimately way up.

Shawn Stevenson: Okay, I see what you did there, you threw me for a loop, but then you didn't know I could hula hoop though.

Jade Harrell: I could come back with a woop.

Shawn Stevenson: It's good to see you and I am excited, everybody thank you so much for tuning in to the show today, we've got a very special guest and an incredible show topic, something that's probably going to change your life, so buckle le seat belt, that's how they say seat belt in France, le seat belt. Shout out to everybody listening in France by the way. Oh Sleep Smarter is published in French now, so everybody in France, go and pick up a copy. I appreciate you guys so much.

So before we get to our special guest, I want to give a shout out to our show sponsor Organifi, now here's the thing- a lot of these supplements out there are a lot like the band

Milli Vanilli do you remember Milli Vanilli?

Jade Harrell: Absolutely. They were from Germany, whatever Girl don't be cruel? That was my stuff when I was a kid, I didn't know the difference, right. But we come to find out of course that they were lip sinking, right, they were good on the outside, look nice but inside they were liars. That's kind of what was going on, we want to kind of fill in those nutrient gaps when people turn to things like Centrum, right these kind of "multivitamins" and Centrum is literally like if you peel off the label underneath it says Milli Vanilli on it, right, so that's not the stuff we want, we want things that are made from real whole food sources, and I like these kind of super food concentrates, right and so one of the big highlights here is spirulina; over 71 percent protein by weight, and here's, check out this guys, check this out, lean in listen to this, there was a study published by the public library of science and found a spirulina promote stem cell genesis, and protects against systematic inflammation which is an insult of something called lipopolysaccharide or lps. It's right there right, and plus it's organic and it's cold processed so they make it sure that you're getting the whole thing and then they combine it with chlorella, they've got the ashwaganda, they've got the coconut water, make it taste nice so make sure that you're utilizing this, this is something I use on a daily basis, I also give it to my kids so check it out you want to get real nutrients that your body can actually recognize and use, get yourself on Organifi, so go to organifi.com/model so that's organifi.com/model and guess what- you get 20 percent off. So head over to check them out and on that note, let's get to the iTunes review of the week.

Jade Harrell: I love this one, it says grants for raising with five stars, "I'm grateful and inspired to have found such an amazing podcast. Shout out to Jade. Shawn and Jade I look forward to listening to this super informative podcast each week, you two put a smile on my face every time with all of your asides and inside jokes. I've listened to all 210 episodes and I'm listening to them again, because each episode is jam packed with nuggets of valuable and life changing information. My husband and I have always believed in treating the body as a whole, and that the body will heal itself granted that you equip yourself with the tools necessary to become the best version of yourself. Shout out to Shawn. Olease keep these gems coming and thank you Shawn for the time, love and energy that you put into your research to help and teach all of us on how to improve one's quality of life. With a heart emoji.

Shawn Stevenson: Oh thank you so much, you are the family, that many hours spent with us, we are family, I appreciate that so much, that means everything and thank you for leaving that comment on iTunes for us; and everybody, thank you for leaving your reviews over an iTunes, if you been waiting this is the time to do it, head over to iTunes, leave us a review, and make sure you're subscribed to the show by the way, there are some people that are listening randomly- subscribe so you don't miss a thing. I appreciate you guys so much.

Now, let's get to our special guests and our topic of the day. Our guest today is Robb Wolf who is a former research biochemist, health expert and the author of the New York Times bestseller The Paleo Solution. It's an amazing book, and the eagerly anticipated Wired To Eat which I now have.

Jade Harrell: You have it?

Shawn Stevenson: Yes indeed. He has been a review editor for the Journal Of Nutrition And Metabolism, and the Journal Of Evolutionary Health, he serves on the board of directors of Specialty Health Medical Clinic in Reno Nevada and he is a consultant for the naval special warfare resilience program, cool stuff. He's also a former California state power lifting champion and holds the rank of a blue belt in Brazilian jujitsu, man this guy is a renaissance, and he lives in Reno Nevada with his wife Nikki and daughters Zoe and Sagan, and I'd like to welcome to The Model Health Show Mr. Robb Wolf, how are you doing today Robb?

Robb Wolf: Awesome, thanks for having me, I feel like I should be taller than five foot nine, with an introduction like that, thank you.

Shawn Stevenson: It's all good man it's totally our pleasure man, thank you for coming on, I truly do appreciate it. So, if you could let everybody know, let's drive in and talk a little bit about your superhero origin story.

Robb Wolf: Oh man, my origin story, I have always been interested in human health, human performance and it's maybe a little bit of a self defense deal, I was raised in a pretty unhealthy house, both my parents smoked, both of them developed type two diabetes in their late thirties. I think I kind of had a choice of head down that road or do something really different.

And so I've always been fiddling with my nutrition in different ways of eating and I'm forty five, so when a I was cracking out of high school, getting ready to go to college, this was right about the time that they shifted the four food groups to the food pyramid, so there was a pretty big emphasis on more carbs, more greens, and I pretty diligently applied that, and I even went down the road of being vegetarian and eventually vegan, and for me and my physiology, I guess I really am just a cave man like it did not work so well. I ended up with all kinds of weird gi problems, I had ulcerative colitis so bad that I was facing a bowel resection at the age of about 26, 27, I'm about 175 pounds right now, my ulcerative colitis was so bad that I got down to a 130 pounds due to malabsorption, I mean I was shoveling food in but it was going out the same way that it went in.

And it was right around this time that the idea of this ancestral health model or a paleo type diet got on my radar and I started doing some research around that, and track down Loren Cordain who eventually became my mentor and I did a research fellowship with him, and I just started fiddling with this stuff. And I guess it's pretty safe to say that this was like a life preserver being prone to a drowning person. I was really sick, and the change that this brought in my health was pretty remarkable, And I was looking at either doing a phd track in research, possibly medical school, but when the full implications of this whole ancestral health model kind of settled on me, thinking about sleep and photo period, our food, exercise and community, I really couldn't wrap my head around staying in either the research world or doing conventional medicine.

And it was right around this time that I found this wacky new workout online called crossfit, and my friend Dave Warner who's a former Navy seal, he and I started working out together in his garage, and before we knew it, we had about 15 or 20 people that we were training in

there, until we reached out to the crossfit folks and we said hey, we would like to open a gym, we want to call it crossfit, the you know what do you guys think about that? And they shot us back a letter and said yeah go and do it. And so that was the first crossfit affiliate gym in the world and it happened in Seattle Washington and then I had a chance to move back to Chico California which is where I did my undergrad and opened up a gym there, which was the fourth crossfit affiliate gym in the world.

And I just had a really awesome opportunity to kind of practice medicine the way that I see it, I'm kind of a lug nut, I like the gym, I like you know moving some weight and I really enjoy the ability for that gym environment to have a profound impact on folks' health and wellness and just build that community. And you know, to the degree that that first book, The Paleo Solution was successful it was largely an outgrowth of having conversations with literally tens of thousands of people, traveling around the world talking about nutrition, talking about all these other factors in the lifestyle picture that plays into our overall health and wellness. And so I guess that's my superhero origin story.

Shawn Stevenson: Oh man, it's so good, there's so many little nuggets in there, and of course like this is the guy who opened up the very first crossfit gym, which is just amazing and you know, obviously it's become a really big phenomenon not just in our country, but around the world, and you know but I love the fact that you brought up that the gym is kind of like a clinic, you know, done the right way, versus the traditional route where you can employ some of the things that are often left off the table. So, I'm curious like what was it that initially, because this is a big thing for people, even if they're sick sometimes they don't really get it, right, they don't really get that this thing could be the thing that takes you out of this darkness; what was it about the paleo framework when you were vegan that kind of got you to say hey wow, this really kind of makes sense?

Robb Wolf: Well you know, I don't want to overly paint my vegan experience in a negative life like I discovered that I definitely am reactive to most grains, I can have a little corn, a little rice here and there, but anything that contained wheat or gluten will crush me, I have coeliac, mother had celiac, that was one of the problems that was driving a lot of her health issues. But you know, a lot of the reason why the wheels fell off the wagon with my health it's that I moved to Seattle, just as winter was starting, my classes started at seven a.m so before the sun came up, they finished around five p.m after the sun went down, I was living in a basement apartment that the ceiling was literally about six inches above my head, and the concept of vitamin D was not remotely on my radar. So, my sleep was super disordered, I was trying to sleep about three or four hours a night, because I was still in my twenties, and I was doing a graduate program and hey you know, sleep is for the week, I'll sleep when I'm dead; and so there were a lot of other factors that were going on into driving that overall you know, kind of health crisis.

Had I moved to Nicaragua and worked on a coconut farm and adopted a vegan type diet, I think I could have probably motored along reasonably well at least for a much longer period of time, because the stress and the lack of sunlight, the disordered circadian rhythm, those things were possibly as big factors in my health crisis as the nutrition was. And so, I definitely don't want to paint that in an overly negative light, but it was the combination of all these factors that really took me down at the kneecaps.

Shawn Stevenson: I'm so glad that you brought that up, because and it's really refreshing to hear, because that's really, all of these different diet frameworks, it's not just the diet, it's also your condition, it's your environment, because same thing- my stint for five years, and to put it lightly, I'm kind of a hard core when it comes to the way when I buy into something, right and so I was vegan for five years, and I'm in Missouri right, it gets cold, I'm making grain smoothies and like eating a salad, you know and I just powered my way through it. And again, it's the same thing if my conditions were a little bit more supportive for that, it can definitely be a game changer. So I'm glad you brought that up. So, when you were struggling with these different issues, with your health, what was it about the paleo framework that was like this makes sense?

Robb Wolf: Oh man, you know what, it was kind of crazy. So my mom had been sick for years, but you know, it was kind of like a low grade deal, but then she went into the hospital and almost died because she had inflammation around her heart and lungs, that was so severe that it was making it difficult for her to move oxygen in and out of her body, for the heart to beat, she had this inflammatory flare and a rheumatologist figured out that she had lupus rheumatoid arthritis, about eight different interrelated autoimmune conditions. And through a battery of testing, he figured out that she was reactive to all grains, most legumes, and dairy.

And I was talking to my mom on the phone about this, they luckily were able to stabilize her, they get her on immunosuppressant drugs, the anti inflammatories, it was a pretty touch and go deal, but she's telling me no grains, no legumes, no dairy, and she had a lot of gi problems also, which I was struggling with the gi problems. But I'm sitting there thinking, man no grains, no legumes, no dairy, what on earth does one eat if you delete that you know, I mean, that was kind of like the basis of everything.

And so I was literally kind of a flow of consciousness deal, where I'm thinking okay, grains, legumes and dairy, that was agriculture. What happened before agriculture? The paleolithic, hunters and gatherers, and you know, just this kind of flow of consciousness. And so this was 1998, and I went into my house turned on my computer, waited for the dial up to do its thing, and there was a new search engine called google, and into google I put this term paleo diet, and what I found was really interesting, there were a lot of papers that were suggesting that things like grains and legumes could cause significant gi problems, and it was talking about irritable bowel syndrome, ulcerative colitis, Crohn's disease, so on that just kind of theoretical side it made a lot of sense and being a biochemist with a genetics background, I've always liked this idea that we could get some great information from this evolutionary biology perspective.

And so it just made sense, and then I did something crazy, I just tested it out and critically evaluated the results. And so, as I shifted my diet away from a grain and legume based vegan diet to this, you know meat/ seafood/ fruits/ vegetables/root shoots and tubers based paleo type diet, my health just improved immediately and I have to say probably the first thing that I experienced the most profound change, was my sleep. The sleep ended up normalizing in a way that was really remarkable and has caused me to want to defend my sleep nearly at gunpoint for the last ten or twenty years since that whole experience.

Shawn Stevenson: Oh I understand.

Robb Wolf: So definitely, the paleo diet, the cognitive piece made sense and then I tested it and I critically evaluated it and I really enjoyed the results. So those were really the two pieces that set into that.

Shawn Stevenson: Got it, so this is pointing back to something that I want everybody to kind of understand, your first book really changed culture, it really put paleo on the map in a big way, so the people listening right now that know about the paleo diet, a lot of that is kind of related to his work, you know, and I'm just grateful for you to share that and to share that story; and also everybody, individuals who are taking on a vegan lifestyle, vegetarian lifestyle, there are paleo frameworks for those things as well, there's like little books out there, recipes and things like that, so this is something it's a framework that can help a lot of people, and I'm just grateful that you took the time and energy to put it together. So, in the book *Wired To Eat*, you talk about something called neuro regulation of appetite. So this is going beyond just the food they were eating, right this is kind of looking at what even makes us hungry in the first place. So can you share what that is exactly, and how that whole thing works?

Robb Wolf: Yeah, if you think about it a little bit mechanistically, we need some sort of a feedback system to let us know when we need energy and also to let us know when we have enough energy, and we don't necessarily need to overfill things. And you could think a little bit about it, like taking your car to the gas station, if the fuel light comes on and it's clear that you're going to run out of gas, then you go plug your car into the fuel pump, and the fuel pump can sense that your gas tank getting full and if things work, when the fuel tank is full, it turns to pump off and everything is good, but if that mechanism is broken, then fuel can overflow the gas tank and we have all kinds of problems.

And that's really the crux of the neural regulation of appetite, and there's all kinds of contention out in the inter webs and even in the research circles about is it only calories, is it only insulin, is it only hormones; and from my perspective, it's all of those things, you know, calories matter, but the thing about that is that most of the mainstream medical recommendations are eat less move more, everything in moderation, and they just don't work. We know more about chemistry and physics and biochemistry and physiology than we've ever known in history, but yet, obesity and obesity related health issues are increasing at exponential rates, and like if you grab a smart phone these things get cheaper and better every year, but our ability to treat chronic degenerative disease seems to be getting worse and worse and worse.

And so, I threw out the kind of crazy idea there that maybe we're doing something wrong, and part of that wrong is assuming that we have self control around our food, that people are wired up to really make a solid choices when we have just effectively infinite food options around us. So this neural regulation of appetite is really where we can construct our eating in ways that we eat enough to support a healthy active lifestyle, a good body composition, but we tend not to overeat. And what's interesting is when you look at the literature, there are examples of people who do well on a high carb diet, but it's usually a largely unprocessed,

not you know super refined approach, and then we see people who do well on a low carb diet, particularly folks that are insulin resistant, and then we also have that middle ground of people who seem to do well on a balanced macronutrient ratio like what you would see in the zone. And some interesting research popped up about two years ago, from the Weizmann Institute out of Israel and they found that there was a massive variation in the way that people responded to food, particularly carbohydrates, some people could eat a lot of rice and have a barely perceptible increase in their blood glucose level. Someone like me has rice and I look like a diabetic from my blood glucose response; my wife and I just got through doing some experiments where we each ate the same meal, track the blood glucose response, and even though my wife is 30 pounds lighter than I am, she can just kick my backside up one side and down the other with regards to blood glucose response, like she just crushed me on average she was 50 to 60 percent better at dealing with a given amount of carbohydrate than I am.

And so, all of this stuff tends to lead back into the neuro regulation of appetite, and calories do matter, but figuring out which food we do well with, how to control blood sugar levels, how to control insulin levels, those things all play into how we feel hungry when it's appropriate, but we're not overeating the bulk of the time, which is what most people in western societies face.

Shawn Stevenson: You've got these charts in the book that actually show, and you've got some examples here that some people respond more negatively to just straight up pure sugar than they do bread, and vice versa, some people respond more negatively to the bread than they do just complete straight up sugar, then glucose. And then you've also got this other one with the banana versus a cookie, right, crazy.

Robb Wolf: That one is kind of mind blowing.

Shawn Stevenson: Can you talk a little bit about that?

Robb Wolf: Yeah, so my publishers really desperately wanted this to be like the cookie versus banana diet, and they're like there cookie profiles and banana profiles, I'm like no, no, no, it doesn't work that way, but yeah, I mean, this was a somewhat random finding, but what they observed was that some people would eat a banana and they matched the amount of effective carbohydrates in these meals, it was about fifty grams of effective carbohydrate and they fed some folks a banana and their blood sugar look great- they fed them a cookie and their blood sugar looked horrible.

And then on the flip side of that, they had people that the banana made their blood sugar go nearly to diabetic levels, and a cookie didn't really do much, you can't make really uniform recommendations out of any of that, even the person who does poorly with a banana/ good with a cookie, they may still do poorly with rice or white potatoes, like it's a very subjective kind of story, but it's really interesting. And it really calls into question how much general recommendations can anyone make, whether it's the government, whether it's a health author like myself. The basic paleo template I think is incredibly valuable, but even within that, we can say it largely whole unprocessed foods, that's great, but the details in that, like if I ate a lot of white potato, a lot of sweet potato, a lot of rice, if I ate it at the amounts that my

wife eats it, I would end up diabetic out of that. So even this very reasonable suggestion, eat whole unprocessed foods, that is great as a starting point, but we really have to get more granular as things go along.

Shawn Stevenson: This is so fascinating, right, so fascinating. And, before we get into what can be going on behind the scenes for this kind of situation, I want to go back and talk a little bit about the neuro regulation of appetite, and how that system itself can get hijacked. So let's talk about hyper palatable foods.

Robb Wolf: Yeah. So, I have a kind of interesting example of this in the book, and I also have a video that I link to where there is a guy Adam Rickman, who is, he did the show Man versus Food, and he would do these eating challenges, where he would sit down and eat a 72 ounce steak, or whatever the challenge was. One of the challenges that I highlighted is called the kitchen sink ice-cream sundae challenge, where he literally eats an ice-cream sundae served in a kitchen sink, it's about 8 pounds of ice-cream sundae fixings, and I don't think that anybody would argue that an ice-cream sundae doesn't taste good, like it's pretty darn good stuff, but, he gets into this thing gets maybe a third of the way through, and then he starts bogging down, and turns green and starts almost retching as he is trying to finish the bite of the ice-cream sundae, like he is going to throw up if he eats more.

And what he does to win this challenge, is really interesting, he orders a plate of extra salty, extra crunchy french fries, and so these french fries are as different from the ice-cream as you could imagine, they are salty, crunchy, savory, umami, versus the cold, sweet creamy kind of experience of the ice cream. But the combination of these two foods basically allows him to not just finish the ice-cream sundae which he was going to fail at, but he eats probably about 1500 calories of the french fries as well, and these foods are what we would call hyper palatable, they are so tasty, that they send a signal to the brain that bypasses the normal neuro regulation of appetite, the normal off switch.

And when some really interesting brain imaging has been done, with these different types of foods, particularly refined carbohydrate containing foods, it appears that they stimulate the same kind of dopamine release that we see with caffeine, nicotine, cocaine, so there is a really powerful addictive nature to it, and there is a feed forward mechanism where as you have some you tend to want more. And so the story with the hyper palatable foods is that you can take almost anything, you could take a baked potato, which most people wouldn't really find all that appealing, but what if you instead of baking the potato cut it up really thin and then fried it so that you have this crunchy texture to it. And then add some salt on it, and then if not just salt, what about some barbecue sauce, extracts so you've got a little bit of that south west flavor to it, and on, and on, and on. And so what is adding these nuances of flavor and [26:13 indiscernible] experience, they can take a food from being pretty benign, like a basic baked potato, it's going to be hard to overeat, but you can tweak it and fiddle it in such a way that it hits such powerful response in our brain that it makes it effectively addictive.

Shawn Stevenson: Wow, you are taking a potato and turn it into a brain ninja, right. Just like gets in there, starts chopping stuff down.

Jade Harrell: First thing that comes to mind to me is like a transformer. He turns into this

incredible-

Shawn Stevenson: He is definitely deception, for sure. So, when we talk about the hyper palatable foods, something to point people back to, we've talked about this on the show before, is this vanishing calorie density, right, so companies are just creating these really intelligently developed taste sensations, number one, but they are also the quality 27:02 making these things out of, like your system doesn't actually know, you don't hit that cutoff switch. Like if you eat something like a pineapple, it can if you eat a little bit too much, it will start to burn you, right, or even basic foods like some protein, you know, somebody is eating some chicken, it's difficult to overeat chicken by itself, like Robb has been talking about, but once you mix in some of these other factors, and some of the things that you can add to your food, now people know about things like msg and things of that nature, but there are so many other things, that are carefully constructed to make you addicted, and it's kind of scary, but at the same time, you don't have to be a part of the system. You could just opt out-

Jade Harrell: When you become aware.

Shawn Stevenson: Exactly. Awareness trumps everything, really. So, did you have something?

Jade Harrell: I did. Also on that awareness because to know that there are hyper palatable foods, it helps us take this on a little better. and also, I just want to 27:54 you Robb for causing thing to happen that weren't going to happen anyway. Being that first affiliate and creating this book and bringing forth this awareness is setting off something that changes the landscape and the culture, like Shawn had referenced before. I also want to know what were roots, shoots and tubers? [laugh]

Robb Wolf: Oh sure, thank you, yeah. Things like yams and sweet potatoes, onions, leaks, those sorts of things. They vary in the amount of carbohydrate density that they have, but they are still what is called cellular carbohydrate, when a plant grows, its matrix is made up of these kind of rigid cell walls and the nutrients are inside there, and when we eat those things, it takes a little bit of time and a little bit of processing to get those nutrients out, and there is also all that fiber which helps feed the gut microbiota and whatnot. There is a fantastic paper that makes a case that a cellular carbohydrate, carbohydrate that's been milled and processed and effectively the starch and the sugars removed from that fiber's portion, that that may be a big part of the problem that we see with gut dysbiosis, and just kind of the hyper palatable nature of food.

Shawn, at the beginning of the show when you were talking about one of your sponsors, the lps, the lipopolysaccharide ends up getting kind of soaked up by that spirulina, when our gut gets inflamed, then we have a tendency to see elevated levels of this lipopolysaccharide go into our circulation, and that stuff immediately makes us insulin resistant and inflamed, and the aseptic patient, someone who has septicemia, say like they are having their appendix removed, and they nick the bowel and you get septic contents basically lipopolysaccharide which is the bacterial components, that really cause a remarkable immune and inflammatory response, but that septic individual if you look at what is going on with them, they look almost identical to a really poorly controlled type 2 diabetic. Like if you looked at the blood sugar,

blood lipids, heart rate, all these things look virtually identical, and so there is some thought there that these refined carbohydrates really feed into that septicemia process by disordering the gut.

Shawn Stevenson: Since we're talking about the subject, this is a good place to bring in the conversation about how bacteria actually play into our food choices, and this is such a fascinating thing, I kind of think it's like the final frontier, in a way, you know, but this is like something that is there at the beginning, and now it is starting to come to light just how important this is. So you talk a lot about gut bacteria in the book, so let's dive in and talk a little bit about that.

Robb Wolf: Yeah, I mean, it's gosh, 20 years ago, there was a little bit of misunderstanding that like if you want antibiotics, you could end up with a fungal infection, a yeast infection because your gut bacteria kind of got displaced, and that was really about the level of sophistication that we have with all this. And then as time has gone on, and it's maybe worth mentioning, in 2004, I have a screen shoot from 2004, when I was on PubMed, and I put in the search term intestinal permeability. And that basically means leaky gut, it's kind of the more scientific way of saying leaky gut, but what's interesting is in the early 2000s the notion of intestinal permeability was largely thought to be quackery, like the people that wrote about it said that this doesn't exist, this is complete quackery.

And if you look today, I think there is 13 or 14 thousand peer reviewed references in there and intestinal permeability in this gut microbiota story is the hottest area that immunology and health research that we know. And to your point, this is absolutely like the most important discovery that we're probably going to make in the next 20 to 50 years, as understanding all this nuance about the gut microbiota. But the long and short of it is, that we're just, we're still kind of like in the categorization process, we're still naming things, we're still figuring out kind of what they do, we are really a long ways away from being able to say, okay, you've got this gut microbiota profile and based on your genetics, this is what the implications are, we're long ways away from that but we are seeing trends, like there is a pretty good understanding that changes in the gut microbiota maybe driving Parkinson's and Alzheimer's disease; changes in the gut microbiota may be changing or risk for cardiovascular disease.

And what the bacteria do under ideal circumstances, there's symbiotic, we feed them some food, which we can't make use of, which is basically fiber, they digest that fiber and convert it into short chain fatty acids, which is a really phenomenal fuel for the heart and the brain and the rest of the body, and they also tend to do some kind of nifty things like making B vitamins and some other co factors that are either essential to life or very beneficial for life. So you know, we now have a much more complex picture of our internal and external ecology, and that we're not just a human but we're kind of a hybrid you know between our human genetics and the bacterial compatriots that we live our life with.

Shawn Stevenson: Fascinating stuff, fascinating stuff. And even to kind of piggyback on that, so he's talking about all these different chronic illnesses that are tied to our gut bacteria in this cascade, something that I've been really wanting to impress into culture is that we're talking about species, right there's like thousands of different species of bacteria, and if you

look at people in different parts of the world, or even different jobs, you see that there's different species, if somebody's kind of working on the land and they are farming that kind of thing, and versus somebody who lives in an urban setting, they are going to be missing some of the things that you would typically see as far as these different species. So many different species are now endangered in a way, and many are extinct you know and so it's just looking at like what is the implication for human health, and we're just starting to find that stuff out and how much it matters.

And one thing I want to add here really quickly is that researchers at California Institute Of Technology aka Caltech, reported that certain bacteria in the gut play an important role in the production of the serotonin, right, and so serotonin is this kind of feel good neurotransmitter a lot of people know about, but this is also a precursor for melatonin, right so our gut bacteria have a huge impact on our sleep quality, there's so much there. So, we're going to talk a little bit more about this and also dive into what personalized nutrition is, and this is also in many ways kind of like the final frontier, finding out what's best for you as a unique individual. I'm going to check that out right after the break, so sit tight we'll be right back.

Massive research is now pouring in with this blossoming field of science and nutrition called nutrigenomics, and this field is studying how every single molecule of food that you eat impacts your genetic expression so we're literally talking about how your body appears, your health or lack thereof, all of this is going to be determined by every single molecule of food that her it' you eat. So whether it's a banana or a doughnut, or a hot pocket- whatever it might be, we have to be in tune with the fact that this is going to impact what genes are getting expressed and there are genes like the fto gene for example, that has been found to be this "fat gene" and have a high propensity towards obesity. If you carry this gene, now you can silence these genes by making sure that you're eating real foods that are in alignment with your own genetic integrity.

The basis of that needs to be from earth grown nutrients, things that your body actually recognizes as real food that you have a history with, that your ancestors have a history with, not things that have been invented in the laboratory like last week. All right, so we want to make sure that we eat real food that are from earth grown nutrients, and this is why I love Onnit so much, this is why they are family, this is why I endorse them so powerfully because they are part of my life, they are part of my family's life and I want to make sure that you had over to onnit.com/model, and you're going to get ten percent of all of their health and human performance supplements. I'm a huge fan of the hemp force protein, I've been using it for many years, it's one of my favorite things in the world. I give this to my kids as well, and this is one of the things that I love to have post workout. Now hemp is based on some powerful amino acids, some powerful protein building blocks like albumin which is a very soft globular protein, it's very easy to digest. Plus, edestin, this is a unique protein compound that is found in hemp that might be the most bioavailable usable protein for the human body. Crazy, right?

So a lot of people today are hearing about the benefits of hemp, hemp seeds and hemp protein and things like that. We want to make sure again that you're getting organic and that it's made with integrity, so that this cold process which you're actually able to get the nutrients that you're looking for in this kind of protein powder, protein cake that you're getting with hemp force protein from Onnit. So, they've got multiple flavors, they've got the chocco

maca, they've got the vanilla, they also have a brand new recovery protein that adds in the powerful component of colostrum, which has every single amino acid, every polysaccharide aka essential sugar, and every essential fatty acid right there, and these powerful building blocks, growth factors, every growth factor that influences your body's metabolism is there, in that recovery protein, so make sure that you check in that out as well superpower stuff. Also has immune factors to help fortify your immune system, just great stuff and they've got exercise equipment, tons of great foods, head over a check him out today, onnit.com/model for ten percent off, now back to the show.

Ok we are back and we're talking with New York Times best-selling author Robb Wolf about his new book *Wired To Eat*, and it is so fascinating, incredible stuff. And in *Wired To Eat*, you talked about at length something called personalized nutrition; so what is that and why is it important?

Robb Wolf: Oh man, I really wish that a one size fits all approach was the ticket, but what we find is that people succeeded all ends of the spectrum, we see some people that do well at higher carb, we see people that do better at lower carb, we see that some people change over time, like if you have someone that is insulin sensitive, real go getter, maybe they are a cop and they are a crossfit athlete, but then they shift their sleep pattern, they go to shift work like they're staying up all night, sleeping during the day, that person may go from being really carb tolerant to carb intolerant, just from a shift in their sleep patterns. So there's some huge variation within that whole story, and we're just now getting to a spot where we can ask some good questions about what one's insulin sensitivity looks like, what their reaction to foods are and then we can start getting more granular about what works specifically for folks. So this is kind of the new frontier and it might be that someday you could take a genetic test on somebody, sequence their gut microbiome and look at that combination and you would have a sense of what exactly that person needs to eat, but we're not quite there yet, and I think that we're a ways off, but what I recommend in the book is going through a triage process where we do some very specific testing, and this testing establishes where you are on the insulin sensitivity, insulin resistance spectrum.

A more insulin sensitive person tends to be leaner, they tend to have more stable energy levels, and then the flip side of that is the insulin resistant person tends towards overweight, they tend to have blood sugar highs and lows, they can get really cranky between meals, and so that's not really the direction that we want to steer things, but based off of where you are on the insulin sensitivity, insulin resistance spectrum, I then recommend a thirty day reset that's based around essentially a paleo type intervention, but there's some fiddling with that, more insulin sensitive person will have more carbs, more insulin resistant person like me would tend to go on the lower carb side of things. And after about thirty days with that, I recommend a seven day carb test where we use an inexpensive glucometer and we pick a battery of about seven to ten carbohydrate based foods, and we test those, and just see what our responses. And with that, then we're able to get really granular, really specific about what's going to work best for folks.

Jade Harrell: I'm certainly would like and appreciate that, coming from the family perspective as a mother who is responsible for the personalized nutrition for a whole group of people, you know, you mentioned that you register different and responded to things differently than

your wife, how can we make those things work or not make them work, but find the synergy so that it works productively in our homes, with the varying, because actually you know, we come home we prepare for a family, but you just really made me present to the distinctions between each person and what they may have a need for, and how they're showing up because of their nutrition and their response to what they're getting from us.

Robb Wolf: Yeah, yeah, so like last night's dinners maybe a good example, we had some barbecued chicken and then we also made a huge thing of coleslaw, and then my wife made a kind of 50- 50 mix of basmati rice and peas, just standard old green peas, but the girls, I have two daughters one is almost five one is almost three, and they love this like rice pea combo and we cook it in bone broth, I make my own bone broth and so you cook it in the bone broth, and I will generally steer clear of that though, because the white rice is problematic for me, but it appears that my wife and luckily it looks like my girls probably inherited her kind of Italian wolverine like genetics and they seem to do better on some more carbs and also because they're growing I am not as concerned about keeping their carbohydrate levels really within tight bound so long as the quality is pretty good.

And so what we do is we just usually have a couple of options- and so for me, particularly for my last meal of the day it tends to be pretty low carb, if I add some carbs to the mix it's usually right before or right after working out or doing jujitsu, and that seems to work really well for me. But, it's not that big of a deal, but we usually have some sort of a starch or fruit as kind of the more dense carbohydrate source and then we add some vegetables, and some sort of a protein source, and so I am able to pull from that as I want and then the girls are able to do what they want with that, and you know the only time it gets a little bit complex is if I make something like soup or a stew where I'm kind of like, ok is this going to be a higher carb one or a lower carb one, or you know, you squash and make it a little bit more moderate, but it's really not that big of a deal, and I will throw this out there, my girls eat liver and kinche, and sauerkraut, and the youngest definitely likes hot food, like if we go out to Mexican food she will take a spoon of hot sauce directly in her mouth and loves it; the older daughter is not quite as adventurous with that, but they eat what we prepare for them, we don't do special meals for the girls we never, got into like that goldfish cracker hyperpalatable stuff, they eat nuts and jerky, they love dried fruit and they can maybe overdo the dried fruit sometimes, like both of them have kind of gotten some fanny rashes from eating you know fruit all day long and then the next day you look at what's in their diaper and you're like holy smokes, man, okay, we're going to dial the fruit down.

But I just wanted to throw that out there, over the course of time the kids will eat what we prepare, and you might have a couple of days of uprising where the kids want their usual junky stuff, but at some point they'll get hungry and they will discover that these largely whole processed foods are really good. And once a week we kick our heels up we do a gluten free pizza night, we do a little bit of ice cream here and there, but what I focused on is mainly making sure that they get the stuff that they really need up front and then I'm not that worried about you know some of these other things coming in on the back end.

Jade Harrell: I think that works for the whole family.

Shawn Stevenson: Yes, I've seen this of course parallel to my life as well, and just the other

day we were at my son's track me, my oldest son Jordan who is sixteen and my five year old he's sitting there in the stands and there's this kid that he plays with that was there, it's a friend of mine's kid just happened to be there, and so they were just having a good time and if you follow me on instagram @shawnmodel and-

Jade Harrell: I am @mrsjadeharrell.

Shawn Stevenson: @mrsjadeharrell. And, so we put that on the insta story because you know, they were like dancing, and they literally did have a dance competition with a bleacher full of people looking to these two kids, but anyway, what was going on was they were playing and they were actually ironically playing with transformers, and so the little boy asks if he wants some candy, right and he was like do you like Skittles, and my son was like what is a Skittle, like he doesn't know, he has no idea about these different types of things. And again it's not like he's not going to be exposed to these things, but he's seen firsthand what happens to him. And so what happened recently, he ate I think it was like too much dried fruit and he got little sores in his mouth, right from eating too much of this dried fruit, and that was the only thing that was different that could kind of cause this symptom. And also, you know maybe his belly will hurt if he has too much stuff and it's just us pointing their attention to it, instead of just like berating our children that this is the way, this is the light and there's no other way to go about this, it's really intelligent just to pay attention and help to support them.

Jade Harrell: That's what you bring to mind is that you've had such a natural whole unprocessed diet, that something like that would alert you, okay well that's the only thing different that would cause him the mouth sores or something in his stomach, so clearly there's something to making sure that we have a stasis in our household and then we can distinguish what may be working for the ten year old may not be working for the thirteen and all the way around.

Shawn Stevenson: Exactly, so you really cater things towards number one you, aka everybody listening you and your lifestyle is going to determine what carbs you are taking in, if you are you know with the ratio, the timing of things, all this stuff matters, but another thing you talk about, you dedicated a chapter to is ketosis and fasting, right. So can you talk a little bit about the benefits and potential problems that people can have employing those type of strategies, which I love in some instances, but let's talk about that.

Robb Wolf: Yeah. Really my first foray into this kind of ancestral eating was actually a ketogenic diet, and I kind of neglected to mention that. And for me, this was just, it was so crazy because my whole life, up until about 26, 27 when I started fiddling with this, I had maybe like a minute here, a minute there where I was clear headed, and I didn't feel like I was living with my head packed with cotton, like I just felt like the world was happening somewhere out there. When I was eating breakfast as a kid or a teenager, I was already planning my snacks and lunch because I knew that I was going to have this low blood sugar, I didn't know it was a low blood sugar than, I just knew I was going to be ravenously hungry in like two hours and if I didn't have food available like I was going to kill someone and eat them, and it was just crazy. And so, then shifting to this ketogenic diet, which is a very low carb way of eating, and when we eat more carbs, most of our body tends to run off glucose, particularly our brain, but in either a fasting state or a very low carb state, the brain still needs

energy, but we don't have enough glucose around to fuel the brain, so there's a pretty nifty trick where we take this stored body fat and convert this body fat into these things called ketone bodies, which carry the energy kind of equivalent of fat, but the water soluble and they can go through the blood brain barrier and it appears that the brain, the heart, the lungs, the kidneys all preferentially run on ketone bodies. So it's really interesting, and it's part of our kind of ancient conserved genetics from a period of time when we didn't have consistent meals day in and day out. And so, you needed a strategy for maintaining cognitive function and physical performance in between these periods of eating. And, ketogenic diet and fasting have been studied, like fasting has references far as two thousand years ago, as being a treatment for a wide variety of ailments. The ketogenic diet has been studied in epileptic children for over a hundred years.

What appears to be going on there is it's providing an alternate fuel substrate, an alternate fuel for the brain in particular, and this normalizes like the calcium magnesium status within the cell, and tends to just generally make the brain work in a more efficient fashion, and it's also starting to be studied as either a preventative measure or a recovery measure for things like Parkinson's, Alzheimer's, and the ketogenic diet is also being studied as an adjunctive treatment for cancer, most tumor base cancers, hard tumor based cancers tend to preferentially run on glucose, and they tended to not run particularly well on fats or proteins, like they can't really shift those things into their metabolism. And so, there's some thought there that you know dropping the glucose levels either via a ketogenic diet or fasting may starve the cancer to some degree, but then also interestingly ketosis is a mild stress, it causes some oxidative stress, but it also enhances anti inflammatory properties. And so this is also where we see some potential benefit for ketosis and fasting, in some of these chemotherapy interventions, where the radiation or chemotherapy is itself potentially pretty damaging, but the ketosis and fasting may offer some protection there.

Jade Harrell: That's huge.

Robb Wolf: That's all kind of some background on it, and you know, people have found that the ketogenic diet can be incredibly powerful for weight loss, some really endurance oriented athletes have found that they do better in this fat adapted ketone fueled kind of state, but I've found it really difficult to make that keton fueled process work for people like crossfitters, Brazilian jujitsu, mixed martial arts, these people who tend to do what's called glycolitic sports very like glycogen demanding sports. It's a tough thing to make that work and I've seen people kind of disregulate the hpta axis to hypothalamus pituitary adrenal axis, some people will call it adrenal fatigue, that's maybe a bit of a mythnomer, but there's definitely some issues that can arise with the thyroid and adrenal function, with people who are training very hard and in that ketogenic or fasting state.

Shawn Stevenson: Wow, so glad you brought that up. I actually talked about that recently, we did a show on carb cycling with Michael Morelli, and I was talking to him a little bit about some of the strategy and employing, adding in some strategic carbs here and there, because that's what I've seen personally as well, I've worked with thousands of people running my clinic, is that people would work really well if they're not doing that glycolitic type of work with the lower carb-ketogenic approach. But, and of course, there are anomalies, who just can do that and just crush it, right, of course, and also when you're first starting something, you

might feel really great about it; and then for some people also there's a push through point, when they employ the ketogenic strategy and as their bodies are getting quote fat adapted, right and you've got to just be intelligent enough to listen to your body, right, because at some point, you should really get over maybe it's the "keto flu" and things like that and you should be feeling pretty good but if you notice that around your workout, you know as you're working out harder that you're not having the same level of energy, that you're not keeping the weight off like you were once doing, maybe you can add in some smart carbs like Robb does for example, around his training, and I think it could be a game changer.

Jade Harrell: I'm glad you said that.

Robb Wolf: Absolutely, yeah. So the title of that chapter is Hammers drills and ketosis the one tool your doctor will never use, and fortunately that's changing, there are really appropriate situations for using a ketogenic diet or intermittent or more prolonged fasting, but it's crazy, there's so much contention and dogma around this, but it's just a tool, like you don't see people bickering on the internet about should I use a hammer a screwdriver or a band saw for a particular job, like it is crystal clear when you know- if you want to cut a piece of wood really nicely use a band saw, you don't use a screwdriver or a hammer and if people just understand the metabolic significance of ketosis and fasting, than all this drama kind of goes away, we can stick those in our toolbox.

And I honestly think over the next ten to twenty years, the use of ketosis and fasting is going to be one of the most powerful modalities that we're going to have in our new medical arsenal, and they are interesting and that they seem to address all of the issues underlying these chronic degenerative diseases. But that said, a hammer a band saw and a screwdriver can also be used as tools of destruction. So the ketosis and fasting, it's a powerful tool, but you need to know how to use it, when to use it, and if it's not working, to be willing to bale on it and not turn it into religious doctrine that you need to defend, the failed kind of modality.

Shawn Stevenson: Yeah, that that takes a little bit of courage. But, in your book, you also, this was very refreshing to see, because this is something that on The Model Health Show we've taken time and like talking with Dr John Gray, Men Are From Mars Women Are From Venus, about relationships and how much that plays a huge part of your overall wellness; and I personally believe that our relationships are the number one most influential factor on our health, on our happiness and on our success in life, and you talk about in the book specifically community and why that's so important to our health, so can you talk about why this really matters so much in your opinion?

Robb Wolf: Yeah, I don't think we fully understand all the mechanisms behind this, like the blue zone studies, where they looked at what people ate and how they exercise and the way that they lived, lots of attention has been paid to the dietary features there, and only more recently have people really started talking about the kind of cultural and connective features of that whole story. And there is some really interesting research that folks that have inadequate social connectivity, inadequate social support, there is a high risk for morbidity and mortality, early death, early disease as a pack a day smoker. And there appears to be some sort of a stress response in that story, and if you think about it, humans are kind of tribal community based organisms and it's only been pretty recently in time that a family unit,

when the kids grow up, they will move away to college and then college will lead into work and that work could take them around the country, or around the world. And so that familial group tends to fragment and even for that child, it's interesting, we grow up and we go through grad school and high school and we have this life-long set of friends and acquaintances, and then going to college most of that kind of disappears. And then at college, we have a period of time where we get some colleagues, then you graduate college and most of those people disappear; then you enter the work world and now people tend to stay in a given work environment for two to four years on average, people aren't staying with companies for 30 years anymore. People tend to not go to churches and civic groups as much as what they used to in the past.

And so, there is a really big challenge with finding a way to bring in that community connected piece and I think that this is why a crossfit and jujitsu, yoga, all these things are so incredibly powerful because they're feeling that need of establishing community. It's interesting within the crossfit context, a really well run gym like that, the coach will talk about sleep and photoperiod, good food, the exercises baked in the cake, and then also, why are you excited to go there- because the community, you're excited to see the people there, and you get that support and you provide that support. So again, we don't know the exact mechanisms of why healthy relationships are really critical, but we know empirically just looking at it that the folks that have the richest, most varied social connectivity tend to be much healthier than folks without that.

Jade Harrell: And able to contribute health and love and energy to others.

Shawn Stevenson: Yeah, I don't think that you can go and have a conversation about any of this stuff regarding health without this, this is you just broke down a huge insight about how the system is today, versus what it evolve being. My wife is from Kenya and so she has a little bit closer remembrance of what that looks like, right this whole concept of the village raised as the child; today, everybody's got their introvert hat on, I've got my introvert pants on baby, I'm introverted and you're not getting me out of this house. And shot out to all my introverts, I'm a situational extrovert, by the way. I like to be by myself, I like to read, you know but this is something to keep in mind that we evolved with companionship, we involved with community. And so, to strategically get yourself out of your little teeny little comfort zone, and to be around people more often, whatever that looks like, and also you just kind of gave me a little push to like wherever my son goes to college, I'm going to follow him.

Jade Harrell: That's right. [laugh]

Robb Wolf: [laugh]

Shawn Stevenson: We're moving- so you want to go to LSU, okay, let me look at some houses. But, this is really just pointing to the fact that this whole equation is so much bigger than just food, right. And also, another part of this story is that the community influences your food choices, so much, right, there is this, and I know you've seen this a ton, and what if we can make it so that it's a societal norm that we eat real food, you know, and your community impresses that upon you versus berating you and pointing at you like, "aaah look at him eating that lettuce, you rabbit", you know, versus encouraging you to do the right thing and

maybe even make fun of you if you're eating at McDonalds you know like, "what, people still eat that?" I heard somebody open a soda the other day, and I'm just like my ears perked up and I'm like what is that, people still do that, you know so thank you man for adding that to the book, that was really fascinating. So, can you let everybody know where they can find your book, where they can connect with you online, and all that good stuff?

Robb Wolf: Yeah for sure, so the book's available anywhere books are sold, it's called *Wired To Eat*, robbwolf.com is where I hang out the bulk of the time, I guess I'm probably most active on instagram these days, and that's @dasrobbwolf, and I answer near every question that I get on social media, I answer it, so if you've got a question I will take the time to deal with it, this stuff isn't a popularity contest for me, it's my job to help as many people as I can, so I'm honored to do anything I possibly can to help folks. And it's a huge honor being on your show.

Shawn Stevenson: Oh man, the honor is all ours, and actually this brought up another question, I think this would be really helpful for people- what about this kind of weird maybe pseudo idea of community just having social media, I think there's a lot of value there, but can you talk about that?

Robb Wolf: I talk about it in the book you know, if we could digress just a moment, when facebook and twitter were really clearly coming online and they figured out, men there's really something to this, those folks got in and really looked at what was happening and doing and brain imaging, and the same dopamine centers of the brain were getting turned on and what they figured out is this novelty became addictive, and it also was in a way kind of filling this void of community, but it's like junk food and it never really addressed the underlying need, but it left you wanting for more, so that social media thing is really tough, because we are time crunched, we're super busy, we work more, sleep less, we have less opportunity, less options for creating community than really just about any other time in our history, and so the social media platform is interesting in that it can feel like it's filling that void, but it's really just leaving you wanting for more, but I would also mention that there are great opportunities there, like there are meetups, things like Paleo FX, and different in real life social events that occur.

So I think that similar to having some dark chocolate or some ice cream, you can use this stuff in a way that it benefits your life, but man, you have to be really careful about understanding the people who develop the platforms that we play on social media, they understand the neuro regulation of appetite and addiction and they engineer this stuff to be hyper palatable, whether we're talking about the food or the social media platforms. Our gatekeepers, most of the people in the medical community, these concepts of hyper palatability, supernormal stimulus and all this, it's not remotely on their radar, the people who are supposed to be protecting us are still having arguments about whether or not this kind of ancestral health topic is even germane, where is the folks that are making like what's the Lay's potato chip line. Just one, and I'll take that all day long those, those guys dump a ton of money into evolutionary medicine research, they figure out how to gain this process in a way that makes the products essentially addictive, and I know it kind of got out of the weeds with all this stuff, but I would just throw out to folks that anything can be of benefit, anything could be too much.

And so, thinking about that in the context of social media, of processed foods, and also thinking about where the gatekeepers are in this whole story, like you know most of our dietitians and health care providers are still in an argumentative phase around whether or not any of this matters. But yet, the people who are making tons of money, they're like oh yeah that absolutely matters, and this is the way we're going to engineer it so that you buy that second bag of potato chips, so that you spend that extra couple of hours scrolling through your facebook or twitter feed, or what have you.

Shawn Stevenson: Love it.

Jade Harrell: That brings to mind nutritious connection. We talk about nutritious movement and nutritious sleep, nutritious connection.

Shawn Stevenson: Love that. Robb, final question- what is the model- example that you are here to set with the way that you're living your life personally?

Robb Wolf: Oh man. I'm horrified to think about setting myself up as a model for anything, I feel so inadequately qualified to navigate my own life, I'm kind of nervous about being an example for anybody else, but you know, I guess first and foremost I try to be the best dad I can possibly be, I took on the responsibility of having children and so I try to make as many decisions as I can based around what's good for my kids, and a lot of what's good for my kids ends up being a lot of tough love, like it's not coddling them, when they fall sometimes letting them pick themselves up and clearly being there to support them always letting them know that their dad is there for them, but helping them to navigate the world as best they can.

And then being the best husband I can, and then beyond that, I guess my mission with this kind of health story, I saw a lot of people suffer while this kind of ancestral health concept has been kind of emerging, particularly without a immune and gi related diseases, I suspected that I and some people like me had some information that could help a lot of people, and now we have people like Dr David Perlmutter, Terry Wahls, like a lot of different health care providers, a lot of people articulating this message, but there's still a lot of suffering out there.

And so my real goal is to present this crazy idea that maybe there are options outside of standard of care, whether we're talking about weight loss or improving your interpersonal relationships if there are some ways of looking at this world that are different and that could really provide some profound impact and benefit for folks.

Shawn Stevenson: Love it, absolutely love it man, thank you so much for sharing this, for being on the show today and sharing your gift, we truly do appreciate it. And again, we'll put all of Robb's information in the show notes and do, just keep doing what you're doing man even if you don't want it- you are still a model.

Robb Wolf: I am looking forward to getting out and eating some barbecue with you guys.

Jade Harrell: That's right.

Shawn Stevenson: Everybody thank you so much for tuning in to the show today, I appreciate you so much and I hope you got a lot of value out of this episode, I know that I did for sure, and this is a real call to action for us to understand what's driving our food choices, right, what is the governing system behind the scenes that's making us want to do the things that we're doing; isn't it kind of important too, to realize that so that we are more masterful in guiding our own lives, rather than having this eternal victim status, when you're not really that, you know it's waking up and understand these underlying mechanisms and that's what he's really bringing to light in this book *Wired To Eat*, so definitely make sure to pick up a copy.

And also, a big takeaway from today is that we want to make sure that we're designing things for us as a unique individual in our own lifestyle, that's how I approach things in my practice, and that's why we saw such phenomenal results, is paying attention to the person not oh this diet is going to help you, this vegan diet is going to help you, this paleo diet is going to help you, this whatever fill in the blank- we have to pay attention to you, what is your heritage, right, can we take a look at what have your ancestors eat, can we take a look at what your lifestyle looks like, what does your work environment look like. All of these things come into play when you're making your food decisions- the timing, what time of day do you exercise right, all of these things matter when we're creating a nutrition plan that works for you as a unique individual, and he points to a lot of these pieces in the book as well.

And lastly, community, how important is that you are part of this community The Model Health Show community and I appreciate you so much for being a part of it, we want to get out as well and take action and see each other face to face. And on that note, I'm going to be in Austin coming up here soon, so head over to themodelhealthshow.com/austin for a special meet and greet at Onnit HQ, I'm going to be at Onnit headquarters in Austin, and so I want you to come and hang out with me there at Onnit HQ. Everybody again, thank you so much for tuning into the show today, I appreciate you so much, have an amazing day, and I'll talk with you soon.

And make sure for more after the show you had over to themodelhealthshow.com, that's where you can find a show notes and if you got any questions or comments, make sure to let me know and please head over to iTunes and give us a five star rating, and let everybody know that our show is awesome and you're loving it. And I read all the comments, so please leave me a comment there and take care everybody, I promise to keep giving you more powerful, empowering, great content to help transform your life. Thanks for tuning in.