THE MODEL HEALTH SHOW

EPISODE 667

Exploring The Vegan To Carnivore Spectrum & The Truth About Artificial Sweeteners

With Guest Dr. Paul Saladino

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SHAWN STEVENSON: Welcome to The Model Health Show. This is fitness and nutrition expert Shawn Stevenson and I'm so grateful for you tuning in each day. On this episode, we're going to be talking about some of the nutrition practices by some of the healthiest, most long-lived cultures in the world. In addition, we're going to be talking about some of the things they're not eating, we're going to talk about the advent of artificial foods. That includes in particular artificial sweeteners. I know we have AI, it's popping right now, we've got artificial intelligence on everything, but the question is, when we're talking about something that is artificial, does that mean human? Does that resonate with human, our human cells, our human DNA when we are synthetically manufacturing things?

Is there going to be any health ramifications that we need to be aware of? And we're going to be talking about that as well. Now when we're pivoting away from artificial sweeteners and artificial foods in general, where are we going to get that sweet taste from, where we going to get that sweetness in our lives? Our special guest today is going to mention a food that's been utilized for the houses of years, that surprisingly doesn't have the same negative metabolic impacts as conventional things like cane sugar and what you're going to learn about artificial sweeteners. What I'm talking about is the power of honey. A recent study published in the peer review journal, Nutrients, detailed how raw honey intake can improve our fasting blood sugar levels, improve lipid metabolism and reduce the risk of heart disease. Additionally, the scientists noted that the vast antioxidant and anti-inflammatory properties that honey has is one of the reasons that it's so good for our heart health.

Now, as is said, what's good for our heart is good for our brain and vice versa. Research cited in the journal, Evidence-based Complementary and Alternative Medicine determine that honey antioxidants have nootropic effects such as memory enhancement. Plus, honey polyphenols are also directly involved in activities that attenuate microglia-induced neuroinflammation, so helping to reduce inflammation in the brain, helping again to improve memory deficits and act at a true molecular level. There's something about honey. Keyword here, "raw" honey. We want to make sure, as our special guest is going to talk about today, that it's not riddled with toxicity, because the environment that our bees are in are going to determine the quality of our honey. There is one company that's doing third party testing to ensure that there are no nefarious pesticides, heavy metals or other toxicants coming along with the remarkable benefits that you can get from raw honey.

And I'm talking about the folks at Beekeeper's Naturals. Go to beekeepersnaturals.com/model, you get 20% off their incredible super food honey and their incredible propolis spray, their bee

pollen, and just 20% off store wide. Head over there, check 'em out. It's B-E-E-K-E-E-P-E-R-S naturals.com/model. Again, you get 20% off store wide.

I love them so much, they're focused on regenerative beekeeping that really help to expand the population of bees and also expanding the land access, healthy land access that bees have, so that we're protecting the bees who are so important and protecting our food ecosystem. Head over there and check 'em out, beekeepersnaturals.com/model. And now let's get to the Apple Podcast review of the week.

ITUNES REVIEW: Another five-star review titled, “Healthy Wealthy” by I Am Righteous. "This is one of my top three podcasts. Shawn is amazing at informing society about what is truly used as a money source, no matter how big the risk are to the human race. I've only been in tune with The Model Health Show for about four to five months, and the audio app has changed my view about America, food, etcetera. I would inform people to listen and see how much you'll be aware of what's going on around the world, and a different method on how you can protect your body from being harmed."

SHAWN STEVENSON: Keyword, "your" body. And that's what this is really about, is empowering you to make decisions about what feels good for you. What feels good for you and caring for your family, and empowerment is the undertone of all of this, and I appreciate you so much for leaving that review over on Apple Podcast, and without further ado let's get to our special guest and topic of the day. Regardless of the nutritional protocol that you subscribe to, we've got so many different labels for the way that we eat today. Every single person can get a lot out of this episode, and I invite you to extend an open heart and open mind and a place of compassion and a spirit of adventure and discovery.

Because we're about to cover a tremendous amount of ground and cover a lot of topics, but again, the heart of all of this is to be empowered with our food choices and doing what's best for us as we are right now and allowing ourselves to change and evolve as we go along.

Our guest is Dr. Paul Saladino. He's a double board-certified physician, a nutrition specialist, and he completed his residency at the University of Washington, and he attended medical school at the University of Arizona, where he focused on integrative medicine in nutritional biochemistry. He's a best-selling author and host of a top 10 podcast, Fundamental Health, and he's also been featured on prominent media outlets like The Doctors. And now he's back here on The Model Health Show for another incredible conversation. Let's jump into this interview with the one and only Dr. Paul Saladino.

Alright, my guy, Dr. Paul Saladino.

DR. PAUL SALADINO: What's up brother? It's good to see you. Thanks for having me.

SHAWN STEVENSON: Good to see you again. Of course, man, it's my pleasure. It's my pleasure. Goaltender at to see you again. We've got so much to talk about today, and we're going to cover a lot of ground. Let's start this conversation off talking about something that it's, if we zoom out and take a look at this subject matter and we think about through the years, we're having a turn towards more natural food, whole foods, real foods. There's this movement.

But at the same time, there's this parallel universe of more and more artificial. And one of those being the big one, artificial sweeteners. And as soon as I hear that label, my cognitive bias is like, "Maybe this is a problem," but at the same time, a lot of folks who are in the health space are like, "This is totally fine, this is my thing," and just to provide some informed consent, let's talk a little bit about artificial sweaters.

DR. PAUL SALADINO: Yeah, I think that there is some intuition that humans have with regard to these things, like your antenna's going up saying, "Maybe this isn't something good." But it's important to consider the science and ask, what does the science really suggest, and what do we know about artificial sweeteners?

I believe there are some larger meta-analyses suggesting that they are weight neutral or perhaps not harmful in terms of weight. But when people in the health space suggest that artificial sweeteners are benign, I kind of scratch my head and think, "How are they ignoring multiple regions of research on artificial sweeteners suggesting that they're maybe not so benign for humans?"

So, let's start with probably the worst set of artificial sweeteners, the most artificial of the artificial sweeteners, the non-caloric sweeteners like sucralose, which is Splenda, ace-K, which is acesulfame K, aspartame. Those are the biggest ones today, those big three, so ace-K, Splenda sucralose, and aspartame.

And there's good evidence that all three of those change the gut microbiome. They disrupt the way that the bacteria in the gut talk to each other, which is called quorum sensing. That doesn't sound like a good thing to me, that doesn't sound like something we'd want to do. But even going deeper than that, it was researched by a psychologist out of, I think she's in Yale and maybe a Canadian university, Dana Small, I think is her name.

She did a study with sucralose, which is Splenda, and they didn't even intend the study to show this, it was sort of an accident of the study, but they had multiple different sets of drinks, but one of the drinks had sucralose, about 30 grams of sucralose with about, I think about 30 grams of...

Maybe less than that in terms of the maltodextrin. Maybe 20 grams of maltodextrin and 30 grams of sucralose. And when they gave people this drink, seven drinks of sucralose plus a carbohydrate, maltodextrin which is a glucose polysaccharide. Over seven weeks... Excuse me, over two weeks, seven drinks over two weeks, they had changes in a negative way in their insulin response, meaning that their insulin was hyper-responding.

Seven drinks over two weeks changed people's insulin response, changed people's glucose response in humans, and especially in adolescents. So, they had an arm of the study that was 13 to 17-year-olds, and they had to stop that arm early because the kids became so insulin resistant so fast. They had to shut it down. That's horrible. And you think, okay, how many products are there in any grocery store that have Splenda and a carbohydrate together? The last estimate I saw was over 3000.

And how many of those are eaten by some teenager or adult who thinks that a reduced calorie cranberry juice is a good thing? It's always reduced calorie foods, right? So, it's going to be reduced calorie food that's going to have carbohydrates that your body is used to seeing, glucose, fructose, sucrose, things like this in these foods naturally occurring.

There's so many foods in any grocery store that are going to have some carbohydrate plus sucralose. And there's good evidence now that this is confusing the body. The body is essentially seeing or perceiving at the level of the gut and then the vagus nerve and the brain, a level of sweetness that is not matched by the calories that are coming with that.

So, the neurometabolic connection between the gut and the brain gets disordered, and yet we're generally telling people that artificial sweeteners are good because they're less calories and less calories allows you to lose weight, which is kind of crazy. So, I suspect that if we did the same study with ace-K or aspartame, you would probably see the same results in terms of neurometabolic derangement, disordered insulin signaling, when people are doing the sweeteners with carbohydrates.

Now, to be fair to the study, they had an arm where it was just sucralose and it didn't have the same effect, but how often does someone just drink a Diet Coke with nothing else? How often does a kid just drink a Diet Coke or a Diet Monster or a Red Bull that's going to... All these diet drinks, let's say they have... They tout the fact that they have no sugar.

They celebrate the fact that they have no sugar, which probably is a good thing that they don't have processed sugar, but what are they putting instead? Some artificial sweeteners, usually sucralose, ace-k, aspartame in there. And so, these are almost always consumed with some sort of food which is going to have carbohydrates in them.

So, if you just gave someone these artificial sweeteners without any carbohydrates, you might not have the same neurometabolic derangements. You're going to have the same gut effects in terms of quorum sensing changing bacterial populations, but you may not get the same neurometabolic effects.

But I think that the majority of people are going to consume non-nutritive, that is non-caloric or very low caloric sweeteners, like Splenda, sucralose, with other foods. And they're trying to lose weight if they're doing this and they're probably going backwards, right? They're probably doing themself harm in terms of insulin signaling.

And then you have a separate set of sweeteners, which people think are benign. Whenever I talk about artificial sweeteners the questions I always get are, "What about Splenda?" Excuse me, "What about Stevia? And what about monk fruit?" So, the ones that are supposedly natural.

But unfortunately, Stevia also changes the gut flora, we know that pretty clearly. There are studies in animal models with mice that show decreased fertility or impairment of fertility when they give Stevia. And Stevia historically from anthropology has also been used by indigenous people to affect fertility, to prevent pregnancy. So, Stevia might not be as benign as we believe it to be.

So, then people say, "What should I do?" and then we can talk about that, I just don't know why people wouldn't do what we've done for 450,000 years as humans, which is if you want something sweet, get some raw honey, preferably from a farm that's not around a bunch of plants that are sprayed glyphosate. Or eat some fruit or have some fruit choice that you made yourself.

I think that we can get into this if you want, but I don't think that having some sweet foods like fruit, fruit juice, raw organic honey in your life is problematic for humans, if they're in reasonable quantities, perhaps scaled to your activity levels, and yet I think people believe that that's going to lead to more weight gain than an artificial sweeter.

But if we consider all this metabolic research in all the gut derangements, the question we really need to be asking and educating people on is, this could be even worse trying the artificial sweeteners. Why not just do the honey and your body will thank you for it, and I think people, most people would be fine.

SHAWN STEVENSON: Absolutely. We've got studies affirming how honey, obviously, it's a sweet substance, but it improves fasting blood glucose.

DR. PAUL SALADINO: Have you seen the study with diabetics?

SHAWN STEVENSON: Yeah, bananas. And by the way, I want to mention this too, just to circle back on this because you just really brought up, this is so important because again, we tend to have tunnel vision when it comes to something that we're using that we like, and so the jury's out on things like Stevia and monk fruit.

But at the same time, we're looking at, "Oh, this is more natural," but anything that's concentrated with it, they're turning it into this crystalline powder, whatever we should have our red flags come up. Now with that said, going back to the artificial sweeteners, there's this particular study, which I don't think a lot of folks have gotten a chance to see this yet, and it's just one of those things where it's just like I knew it was a matter of time.

Because our biology is wired up a certain way. You mentioned something where we have this post-ingestive feedback, we eat a thing, we evolve eating a thing and getting data back, like the calories and/or the energy, the food itself is matching a certain profile. And so now we're getting this sweet input, but it's just like the body is like, "What is going on here?" And we think we could just trick our bodies and not have any side effects. And so, this was...

This was published by the American Diabetes society, and this was on test subject who didn't regularly consume artificial sweeteners. This was 17 test subjects, and they found that the artificial sweetener sucralose, elevated their blood sugar levels 14%. It directly elevated their blood sugar levels. It's not supposed to do that. And their insulin levels, as you talked about a little bit earlier, they elevated their insolent levels by 20% on average.

Alright again, artificial sweaters, we can think... They're pretending to be sweet, but we're not getting any of these kind of side effects, but the reality is very different.

So, you just brought into the fold, mentioning honey, mentioning fruit, things that we evolved eating as a species, but people might be surprised to hear that coming from Carnivore MD. Can you explain yourself?

DR. PAUL SALADINO: Yeah, yeah. So, I've always found it humbling to be a doctor, to be a physician, to be someone in the health field. Because we, we're always learning. Right? And I love that I'm always learning. And my carnivore "journey" started maybe five years ago. I think when we first did this podcast, I was probably strictly carnivore.

I remember sitting in the old studio and I probably was only eating meat and organs and animal fat and salt. That's all I ate for a year and a half. And then I ran into some problematic side

effects, electrolyte issues, some hormonal changes, my testosterone was dropping, I was getting heart palpitations probably related to the electrolyte issues.

At a technical level, if you looked at my blood work, my sex hormone binding globulin was going up, which means your free androgens and other free hormones are going down, which isn't really what you want. I was living in San Diego at the time, and I kind of always felt cold. San Diego is kind of that cold culture, just the cold environment, but I always felt colder than I thought I should be.

If you look at my thyroid labs, my free T3 and free T4 were just kind of getting low and right on that low end of normal. The TSH isn't moving. There's probably some degree of thyroid derangement that happens with long-term ketogenic diets. And so, this is what I realized, and I added back fruit. I added back honey first, then fruit. And so many of these issues I had got better.

And you can see this on my podcast, which is called Fundamental health. I've gone to great lengths to show people my labs. I love the... As Tim Ferris says, "The opening of the kimono," like I just show people my blood work. And while I'm in LA now I'm going to get another set of blood work.

So, I did a podcast in August with blood work. Podcast in November with blood work. I think I did a June podcast in 2022 with blood work. And you can see in that stuff, like my testosterone goes up, my thyroid labs go up, the electrolytes normalize, the sex hormone binding globulin comes down.

I'm subjectively sleeping better, don't have cramps in my muscles. I can go to a climbing wall and actually climb and not have a cramp in my calf when I'm pointing my foot to a hold. I remember at some points in my sort of carnivore experimentation with a fully ketogenic diet, I would flex my forearm and I would get a cramp in my forearm. A lot of people get cramps in their calves. I was getting, I would get forearm cramps. This is not right.

And so, what we now... What I learned that I was never taught in medical school, and I feel very humbled by this, is that insulin is not the enemy. And postprandial, after eating, so after a meal, your insulin goes up. And I think that for some unfortunate reason in the low-carb community, I think a lot of people are very intelligent and well-intentioned, but they don't understand that that's a positive thing.

I never learned in medical school that insulin has essentially non-replaceable actions at the level of the kidney to hold on to electrolytes. So, if you are always eating keto, your insulin is always low, which is sort of good, but your insulin is always low, you're never getting a

postprandial insulin bump, and your kidney is never getting a signal to hold on to calcium, to hold on to magnesium, to hold on to potassium or calcium.

And so, you're getting all these issues that are related to all the electrolytes being out of whack. 'Cause if your sodium goes low, your body's going to switch it for potassium to hold on to sodium, and then if your magnesium or your calcium goes low, your body... You guys, your body has all these antiporters and symporters in the kidney where you're absorbing electrolytes together in opposition, so you're going to switch things out, it's like you're playing Uno or something, and you're trading cards, because you need a little more of this electrolyte, you have to sacrifice that electrolyte.

I've seen so many people on long-term ketogenic diets who were really working hard to lose weight and become healthier, who had recalcitrant electrolyte issues that were unsolvable with massive amounts of sodium. And so, what I learned was, "Hey, carbohydrates, essential for the human body."

They are sort of the signal of abundance for the human body, and that makes sense evolutionarily. When carbohydrates are available, the environment that you are in as a human, as a male or female, is saying, "This is abundance, celebrate this." And if you're living near the equator, those carbohydrates are probably around more of the year.

Where I live near the equator now, there's fruit year-round, there's a honey year-round because bees are doing their things year-round, and so that's a very fertile place for humans to be. But carbohydrates are a signal of abundance for us. When we pull them away, we're giving our body this winter signal.

And some people might argue, "Oh, it's good to have a winter signal every once in a while," and that's a whole separate debate, but to give a winter signal consistently or all the time leads to some pretty massive problems for human physiology, and though I think that intentional dietary choices like keto are generally to be appreciated, I think that they're being overused and a lot of people are suffering, and there's not a lot of discussion about the real non-trivial downsides to not having carbohydrates in your diet.

So now my diet is, the word "carnivore" is getting very flexible these days, so I thought maybe the words "animal-based" would be better in contradistinction to plant-based. Mostly, my diet is animal foods. I eat meat, I eat organs, I have raw butter, I have raw dairy, raw milk, raw cheese, raw cream. Got some raw kefir here.

And then to that I will add carbohydrates in the form of honey, usually raw organic glycosylate-free honey and fruit or fruit juice, and those are kind of titrated based on activity level for me.

And it's made a world of difference and it's... I think it's... There's still things that I leave out, and we can talk about this if you want.

The vegetables are left out. So, I'm not eating all plant foods, and that's from this sort of broader perspective and framework of what are the least toxic plant foods? If you want to be a healthy human, if you really want to thrive as a human, the equation that I think of is how do you get the most nutrients, micronutrients being especially important, something we don't think about a lot, like the vitamins and the minerals to make the little biochemical wheels and gears and levers in our bodies go, with the least amount of toxins?

So, you're always going to get a little bit of toxin, you're always going to get some environmental pollution, you're driving on the road, there's contaminants in our water. No matter what we do, there's always going to be pesticides on our food. You're always going to get a little bit of plant defense chemicals in your food. But how do you get the least amount of those toxins to allow you to thrive most as a human?

And I think it makes sense from, again, going back to that evolutionary lens, what are the most sought-after foods by humans, it's not vegetables. You go to visit the Hadza, so I went to Tanzania a few years ago, they don't really celebrate vegetables. I did not see them eat a single vegetable.

I went digging tubers with the women, but the guys that were there with me, the Hadza men were like, "We don't want that stuff. We want to eat honey. If we find some berries, we'll eat it. And really we want to go hunt for animals and eat them from nose to tail with all their organs."

So, there's a very clear pattern, and anthropologists who have done their PhDs with Hadza or the Khoisan in Southern Africa, Botswana, Namibia, say the same things, like these people, they crave either sweet foods or animal foods. So, they don't really celebrate vegetables. They might eat "vegetables" and by vegetables I'm thinking of things like leaves, stems, roots, and seeds of plants, if they're starving. Those allow us to be that sort of fully omnivorous human.

But they're not, they're not really sought after by humans, they're very low on the totem pole. And that makes sense, right? But the Hadza will not turn the blind eye to honey. When I was on a hunt with them, they found a beehive in a tree, and those guys were up in the tree, making a fire with sticks in under two minutes, sticks that they just cut off branches from a nearby tree.

They had a fire with no lighter, no matches, in under two minutes. They're smoking the bees out and then they're handing these huge pieces of honeycomb down to us, and the next thing

I know I'm eating bug larva. I'm eating bee larva with honey dripping off of it, and we're all just really excited because they just had a kill.

We were hunting baboons at the time, so they'd killed a baboon and we had honey, and it was one of the best days in a long time for them, probably.

SHAWN STEVENSON: Wow, man. The biggest thing here for me, number one is you are a model of what we all should aspire towards, which is being a student. This is the thing about you that I don't think a lot of people really get. You as a human being, it should be evolution, it should be paying attention to my body and making adjustments as I go along, and not to be dogmatic about things.

And again, there's still... Because I think we can have our biases, there's still this openness to you to, to where things could, this could be this, this could be... The jury's still out, but you're sharing the data that we have. But I respect that so much that you're...

Because the reason that you went into the carnivore protocol, it helped you to get well, and it helped a lot of patients that you were working with, and that's the thing about it, that I think whether it's on the other end of the spectrum, if you got a vegan physician doing this protocol, it probably helped him or her and/or their patients at some point. But once we have this kind of end all, be all, "This is right for everybody right now," that's the problem.

And so, with you evolving your perspective and taking people along with you. Like when you start to share, "These are my numbers, this is what was going on," I was just like, "Amazing, that is so amazing." Because that's what we all have the potential to do. But we can't make those adjustments when we live in this dogmatic frame.

And so, what we'll try to do inside of it just like, "I'm just going to keto harder." Or "I'm just going to... I need to cut out more," whatever. Whatever the thing might be within that framework, instead of opening yourself up like... And with this bias, which I think is a healthy bias, what have humans been doing the longest?

I think that part of our problem right now as a society, especially when we become interested in health, is we have all of this infighting over minutia and instead of looking to the big picture, like the majority of our citizens are eating ultra-processed foods, like it's the majority of our diet.

And so, getting into this space where we are working on being a healthier, happier version of ourselves, but also giving ourselves permission to have diversity within that, to have healthy conversations with that and being open to change.

DR. PAUL SALADINO: Yeah, what... I feel like I'm doing the best when I'm making people curious. I want someone to be curious. I don't want to be dogmatic with what I'm doing. I've evolved in my thinking and with what I do, and if I can help someone think for themselves and do their own research, that's my goal.

And even within the bounds and the framework that I'm suggesting people consider now, an animal-based diet of organs, meat, fruit, honey, and raw dairy, maybe the most nutrient-rich foods that are least toxic, I do try and frame it in a perspective that says, "If you're thriving, don't change a thing. If you want to eat some kale or some broccoli or some spinach, great." It's not a big deal if you're doing great.

What's really important for me is that somebody who is suffering, who is having eczema, psoriasis, mental health issues, GI issues, obesity, sleep issues, and not finding a solution, might find what I'm doing and think, "Oh, maybe that's the piece I was missing? Maybe that kale is not great for me? Maybe the spinach has too many oxalates and that's why I have joint issues, or that's why I have some arthritis?"

Or maybe, you know, maybe this Stevia or maybe these artificial sweeteners are making me a little hungry?" That's what I want people to do, is to think for themselves and be curious.

I think that in the health space, when people see me talking about an animal-based diet, they think I'm admonishing them, "This is what you should eat," with a wagging finger. That's not it at all. It's just saying, "Hey, this has worked for me." I've seen a lot of people who were previously stuck with all these autoimmune issues or chronic health issues get better when they cut out foods that we widely consider to be healthy, or that we're told are benign like artificial sweeteners, or foods that we didn't even know were bad for us, like seed oils.

And that's what I want people to kind of just get that little red pill, from that Matrix, the Matrix metaphor. I just want to make people a little curious and to think for themselves. But I do not want people to take what I say at face value, I want them to examine it, to disregard it if they don't find it to be valuable, to do their own research.

And hopefully, kind of like we were talking about before the podcast, find ways to create healthy discourse between people with slightly different ideas. Because there is just all this infighting and dogmatism and people just get religious and they choose a camp, and then it's hard to...

There's not really even fertile soil anymore to plant seeds and people to kind of think about how their ideas might be evolving and growing. So, curiosity is the coolest thing for me. If I can create that in people, then we're doing good. I'm trying.

SHAWN STEVENSON: Yeah. And part of that, it's a natural evolution into being dogmatic about a thing or just making it like this is the end all, be all, "This way is the way," when we get results with a thing. Especially if we've been in pain for years, are struggling with a certain thing, we change something within a diet framework, then that becomes the holy everything.

And of course, again, we have to be more understanding in what brought people to that place, and we are an interesting place today where previously, humans were driven by the necessity of survival and doing what they had to do within the environment. And also cultures previously often had a lot of respect for our place in this whole web of life here on planet Earth, which has kind of had this weird separation cognitively, but we're still on the planet, so we're not really separate.

But today, instead of really going off of what we're designed to eat and/or the foods that we've eaten historically, now we can eat idealistically, right? Now we can eat based on a belief or a bias. And that is, I think it's a wonderful evolution to be able to think in those terms, but evolution takes time.

And so, when we start to live by this idealistic thing and then we're suffering, hurting ourselves and trying to operate within this idealistic framework, this is part and parcel of so much of the struggle that I think we're having here, not being able to have these healthier conversations.

DR. PAUL SALADINO: Shawn, have you ever read The Prophet, by Kahlil Gibran?

SHAWN STEVENSON: I can't say that I have.

DR. PAUL SALADINO: It's this awesome book. It's mostly poetry. But I'm reminded of this line in The Prophet, and I'm paraphrasing him, but he says, "Don't say I've found the truth, say I have found a truth." And I'm thinking about this as you're describing all this, these different ways that people are trying to become healthy, and I think there are truths within vegan diets and truths within vegetarian diets.

And people who find improvements in health with a vegan or vegetarian diet, then you've found a truth. And when my eczema and asthma got better with a carnivore diet, I found a little bit of a truth, right? But I didn't find the whole truth. And that's what I think we're getting to here is, I think we're in the process or...

The journey of life is about finding truths and never really believing that we've found an entirety of the truth. So, it's an evolution. And I think that their value, there's value in vegan diets, there's value in vegetarian diets, what have those people cut out that led to their improvements. But is it the whole truth? No.

Let's not become dogmatic and say, "This is the only way." Let's just say, "There's a truth here, and how do we put that together for other people?" So that's what I was thinking when you were talking about this, 'cause there's a lot of truths and there's truths from people who think about things completely differently than me, and they get lost when we get too dogmatic.

SHAWN STEVENSON: This is what's so amazing about our species as well, is that we're so diverse. We're so diverse. I have this belief that humans have literally just tried to eat everything on. You know?

DR. PAUL SALADINO: Probably.

SHAWN STEVENSON: If you think about it, like babies, they just go and put stuff in their mouth, and other species they go and lick and sniff and all this stuff. But again, we are so evolved and we're so above these things, but in reality, humans have tried to nibble on everything from bat dung to beetles and whatever, oysters. Whatever, this whole spectrum. And I don't know how I got from bat dung to oysters.

But we've experimented. And the thing is, our ancestors figured a lot of stuff out through trial and error, trial and success, kind of laid out a blueprint for us, but we can still see that blueprint in the evolution of our brain as a species. Even if so, much of our history has been lost and burned and whatever has happened along the way. But if we can lean onto that.

And this is what one of the other things I admire about you is, "Let me actually go and involve myself in a culture that has a lineage, that are still living in the ways that our ancestors evolved in as primarily hunters but having gathering aspects in their community as well."

And you going there and having the experience and paying attention, and again, being open like, "Oh wow, they're doing this thing, they're doing that," and adding that to your repertoire, seeing if it works for you. Because there is... We have these growing fields, we have nutrigenomics, nutrigenetics, in our genetics we do have certain things that interact with our template right now. But even that can change, and that's another thing about this whole genetic conversation.

DR. PAUL SALADINO: Yeah, I think that people shouldn't over-complicate it. Understand, try and find some baseline where you feel good, know what feels good to you, and then make

some experiments and see if you feel better or worse from there. But it goes back to what I was saying earlier, and I think people get lost 'cause there's so much conflicting health information today.

There's another guy or girl saying kale's the best thing on the earth, and there's a bean diet. Spinach is amazing and celery juicing, right? And I'm going to say, "Oh, celeries got these psoralens which can accumulate in the skin and crosslink DNA and might create photosensitivity, and spinach is oxalates, so if you've got issues maybe... "

So, I just, what I want people to think about or what I would suggest they think about is just how do you get the most nutrients with the least amount of toxins? And then understand what your baseline is, so you can feel as good as possible and then kind of navigate yourself. Because there's definitely bio-individuality and differences between humans in terms of what foods are really going to allow us to feel the best. But that's the goal, for humans to thrive.

That's the goal, and like you said, I think if we get too dogmatic, we get stuck and then we're just... We're calcified, we're sort of ossified, petrified wood, and this is all you're ever going to get, that's the best you're ever going to get. It can be so much more that we're leaving on the table.

SHAWN STEVENSON: Yeah, yeah. And that's what for me, I would love to see the journey be about, like how good can it.

DR. PAUL SALADINO: Yeah, how good can it get.

SHAWN STEVENSON: But right now, we also have a large part of our population that's still in struggle and trying to survive, even though they have a lot of stuff they're eating, but their bodies are really starving. And just to lean back into this portion, which is again, you going on these adventures and putting yourself in these really interesting places of analysis.

You have another recent Indiana Jones type of experience, and as of this recording right now, there's another Indiana Jones coming, if people don't know that. Shoutout to Harrison Ford, maybe he's doing...

DR. PAUL SALADINO: Is he making more movies or something? Oh yeah, he's doing another Indiana Jones movie.

SHAWN STEVENSON: We got to study him. Alright? We got to study him. You know?

DR. PAUL SALADINO: 80 years old.

SHAWN STEVENSON: But can you talk a little bit about this, because you happened upon some fascinating historical context for a certain category of foods.

DR. PAUL SALADINO: Yeah, this is pretty amazing. And it does find congruence with what I've seen in hunter-gatherer cultures, which is when I hunted the baboons with the Hadza, the first thing we did was eat the organs. The first thing. So first of all, people might say, "Oh my god, you hunted baboons," but this is their life, this is their lifeblood, this is what they do. They hunt baboons.

But with every animal that we hunted, that they hunted, whether it was a genet cat, or a baboon were probably the bigger ones, or a dik-dik, which is a small ruminant, like a really, really tiny deer, the first thing they do is eat the organs. And before I started thinking about a carnivore diet, before I started thinking about animal foods, I never really had organs.

I had a little bit of liverwurst growing up, but I never ate heart until about five years ago. I never ate thymus until about three years ago. I never ate intestines; I never ate brain. I ate brain with the Hadzas. So, when we killed this baboon, the next day, the hunter whose arrow struck the final blow to the baboon, hands me the skull of the baboon, that this is like treasured brain.

This is true Indiana Jones stuff, man. Like Temple of Doom when he's eating the monkey brains. But I literally ate baboon brains with this Hadza guy. And they love it, they love the brain. For a while, I've had this intuition that organs have to be a uniquely valuable food for humans.

You go to Whole Foods, you go to any grocery store, Trader Joe's, Sprouts, whatever, you're going to see meat. But how often do you see heart, thymus or liver, kidney or spleen or brain? Almost never for most of those organs. Testicle, ovaries, uterus, fallopian tubes, none of these organs are at the grocery store.

So, we've just forgotten about them, they're just gone. They're essentially shadow banned from our existence because people don't eat them anymore. And I get it, a lot of these organs are different tastes than we've grown up with. Unless you grew up in a very ethnic family that was making soups out of these things, you may not have a taste for liver and you probably have never had a thymus or spleen in your life, because different textures and stuff.

But our ancestors have always, always eat these foods. So, I kind of knew there's got to be something unique about these foods, they're not just eating it because of the calories. Because they'll give some foods to the dogs, so they give the intestines to the dogs, that are full of the poop, they're going to get that to the dogs.

They won't eat things they don't like the taste of. They're not going to eat bitter leaves unless they're starving. So, if they didn't like the taste of the organs, they would just get rid of them. They would give them to the dogs. But they find some value there, and this has always been true, there has never been a culture of hunter-gatherers or really a historical culture of humans that's been studied that doesn't eat the organs. And usually eat them first and celebrate.

There are some cultures in Africa that won't even touch liver with their hands because it's so sacred. Liver is almost worshiped by these people. So, what is going on here? And you can start to look, and I started to dig, and you see, okay, at one level, liver for instance, super nutritious.

Liver is "nature's multivitamin". You got choline, you got vitamin A, that's bio-available on the retinal form, you got biotin, you got folate, you got riboflavin, you got selenium, you got manganese, you got magnesium, you got zinc, you got copper. But there's a whole different level to these organs that I'd always suspected was there, and we recently found some really fascinating evidence to this.

It's basically medical research that's been done over the last 70 to 80 years that nobody really knows about, which is why it's kind of the Indian Jones stuff. There are some papers that are published in journals that you can search on PubMed, there's papers with thymomodulin, which is a peptide, these are short proteins, usually less than 10 amino acids, but sometimes a little greater than 10 amino acids.

Peptides in these organs that don't occur in other meats or parts of the animal, that have unique functions in humans. So, there's double-blind, randomized, placebo-controlled trials with the thymomodulin from thymus, which is an organ that sits behind the sternum in humans, that show that if you give this to kids, they get less respiratory tract infections. And if you give it to elderly people, they also get less colds, flus, respiratory tract infections.

So here you have an immune organ, the thymus is where the T-cells of our body go to mature and get programmed, but the teaching I got in medical school is that the thymus involutes, that it shrinks as you age. But in animal studies, we've never done this in humans, but in animal studies if you give them thymus extract, if you give the animals thymus, their times grows and they are more resistant to infections, both bacterial and viral. That's really cool.

We're just coming out of a huge pandemic, people are worried about immunity, flu season. Nobody wants to be sick. But have you ever heard someone say, "Maybe take some thymus, it's flu season."? Never. They might say, "Take vitamin C or echinacea." But the data for thymus is more robust than either of those, or we've never heard about it.

And there's data mostly from Germany in the 1950s and 1960s of giving almost all of the organs to animals and then seeing the corresponding organ grow. So, you can give... This is what's really cool. You can give the animals like liver, or you can put liver pulp on a chicken embryo, and the chicken embryo's liver gets bigger. The spleen enlarges if you give it spleen, heart enlarges.

It's this concept that in an organ there possibly could be growth factors, peptides that are supportive for the corresponding organ in humans. This concept of like supports like. And it's been talked about a little bit in the past. I remember Joe Rogan and Huberman and talking about it on a podcast, and Joe says to Andrew, who's a friend of mine, "Is there any evidence for this?" And Andrew goes, "None that I'm aware of."

And so, I've been texting my friend Andrew, "Man, I got to show you this stuff, 'cause there's actually really good evidence that when you eat an organ it does have unique growth factors that are not present in other organs, not present in muscle meat, that could support the corresponding organ." That's wild.

And so, to find these studies, this is what's one of the cooler parts, we had to go down these rabbit holes. This is my team at Heart & Soil, had to go down these rabbit holes, and we found this book in the library in Heidelberg, Germany, and it's a book that's in German. This book has never been digitized, you cannot search for this on the internet, it's a book in Germany, in a library.

And so, we had somebody going to Germany, and the book has never been checked out of the library, nobody's ever read this book and it's German studies. And so, what we did was we got the book and we had someone translate the studies from German. And what you find is that people have been talking about this for almost 100 years.

That giving an organ to an animal, even a desiccated or like a freeze-dried organ, will support the corresponding organ. Will either increase the mitosis, the cell divisions of the organ, will change the way immune cells work in the organ. It's a wild thing. And then you think, okay, these organs have been completely left out of the human diet. What are... Maybe we're missing something big here? And that's what's really cool.

So, part of what I do is a huge advocacy for eating organs. One of my main missions for today is to figure out where I can find some liver and some heart in Los Angeles. But I want people to understand that these organs are powerful and that getting them in their diet will be a really... Just like, it's just extra credit, just free, it's just free life points in your organism, you're going to feel better.

And there's evidence with brain extracts, phosphatidylserine from brain of cows that improves cognitive decline in the elderly. Those are actually widely published studies, that's another double-bind, placebo controlled, randomized study. So, it's a really cool thing, man.

One of the things that I did in the last few years that I'm really proud of is build a company called Heart & Soil that makes these organs in desiccated form. So, we freeze dry the organs to put 'em into capsules. If people can't or won't eat the organs, you can get 'em in capsules. I want people to eat the organs fresh, but I haven't seen thymus at Whole Foods any time recently. And it's delicious and it supports the immune system. Brain, heart, liver, kidney, spleen, whatever. It's really cool stuff.

SHAWN STEVENSON: Can you let people know where they could find it?

DR. PAUL SALADINO: Yeah, Heart & Soil. It's heartandsoil.co is the website and people can go there. But I want you first to go to your local butcher and ask them if they have testicle or heart or liver or spleen and eat these things, and if people won't do it, check out the desiccated organs.

And like I said, there's also... And this is probably, you know from a perspective of reaching more people, this is one of the more exciting things, is that there's evidence from these studies in the 1960s in Germany that the freeze-dried extracts of these retain these tonic compounds. Retain these tonic properties.

If you take the organ, and they did this, and you boil it in a heat bath, it loses these things. But freeze drying is pressure that's very low, so basically, you put this in a special machine called a freeze-drying machine, and based on Laplace's Law in physics, if you have a very low pressure, you can dehydrate something basically in the freezer of your house.

So, it's not like a dehydrator you have in your house that's 140 degrees, you're cooking the organ and getting the water out, you're putting the organ in a freezer that lowers the pressure and that allows you to hit the triple point and sublimate the water from basically directly into it basically it's a solid and then it becomes a gas immediately. So just you get rid of the water at a low temperature. It's how they make space food. But it preserves more nutrients.

SHAWN STEVENSON: I just had an image of The Jetsons.

DR. PAUL SALADINO: Yeah, yeah.

SHAWN STEVENSON: Do you remember he used to like, he could push a button and a meal pops out. It's that kind of consciousness, but we can use innovation for things that are still tied to what our bodies are really designed to have.

DR. PAUL SALADINO: Yeah, I don't even think of what we do at Heart & Soil as supplements. Technically they're supplements, but they're just food in the capsule, and we make the food in the capsule in the best way we know how.

SHAWN STEVENSON: We've got a quick break coming up, we'll be right back.

There's a natural ebb and flow of our body temperature throughout the day, and through our evolution, there's a natural drop in our core body temperature at night to help us to facilitate sleep. Certain hormones are released, certain in enzymatic processes for repair. Certain things change in our brain, when our body temperature is going down in the evening, in association with the nocturnal pattern of life itself here on Earth.

When things start to get darker or body temperature goes down, it's how we evolved. Now, today we can throw a glorified monkey wrench into that natural process, and what the research indicates is that one of the primary things that's underlying insomnia is an inability for our body temperature to be regulated.

Specifically in the evening, we're seeing folks with chronic sleep issues having a much higher core body temperature at night. This was highlighted by a study that was published in the American Journal of Physiology. Now a new study with this in mind was just conducted and included 32 participants, and they were recruited into a three-week clinical trial to see if supporting thermal regulation with their bedding can help to improve their sleep quality.

Now, the researchers took subjective and objective data monitoring their sleep with devices, to see the impact of their sleep conditions. And so, the researchers utilized some Bamboo Lyocell sheets that support thermal regulation, that are antimicrobial, that are moisture wicking, and they found that by sleeping on these sheets the study participants had a 1.5% improvement in their sleep efficiency.

What does that mean? What does that equate to? That's equating to an additional 7.2 more minutes of restorative sleep per night. Now, what if we stretch that out, you're talking 43 extra hours of sleep per year. They're still doing the same activity, still in the same bed, but not getting optimal sleep. There's a difference between getting restorative sleep and just being unconscious or just being in the bed.

This simple thing, just what we're sleeping on, can improve our sleep quality. By the way, subjectively, so that was the objective data, subjectively, the participants founded their mental alertness during the day following sleeping on these sheets improved by 25%. And overall, 94% of people prefer sleeping on these sheets versus whatever else they were doing before that.

Now, these sheets are from Ettitude and these are my... I love these sheets so much. I didn't know that this was even a thing. I didn't know that this existed, that this had it so much, but once you sleep on the sheets, you truly understand why. They're free from harmful chemicals, irritants. They're hypoallergenic. And also, they're self-deodorizing, they inhibit bacterial growth. They're breathable, moisture wicking. Also supports thermal regulation.

But something truly special, because I love these sheets so much, I actually reached out and connected with these folks, and I got a 15% off discount for our audience here. So go to ettitude.com/model, that's E-T-T-I-T-U-D-E dot com/model, use the code "model 15" at check out. Get yourself some of these incredible sheets.

And these are a great gift as well, by the way. I get these sheets for friends all the time, I love them so much and also, they're giving you a 30-night sleep trial, so get the opportunity to sleep on them, think on them, dream on them. If you don't love them, just simply send them back for a full refund. Go to ettitude.com/model, again that's E-T-T-I-T-U-D-E dot com/model, use the code "model 15" altogether at check out, for 15% off. Now back to the show.

So just to go back to this association, like having that resonance with like. And the same thing can be said with the doctrine of signatures, certain things in nature having this resonance with blueberries and anthocyanins and vision and that kind of stuff. And again, we might think that we don't have a map or some kind of guidance or instruction in the world around us about what human foods are, but the data is there, we've got the scientific published data now, but also there's an intelligence.

And staying in touch with cultures that are still tied to that is really helpful. Because again, I think it's going to be jarring for some people to hear like they're out here eating a baboon brain. You know what I mean? That's a far jump from Impossible Burger, you know what I mean?

And so, but we have Impossible Burger consciousness on some folks right now, and here's the thing, it exists. And there might be... This is where I'm at. Even though I know that this is a plethora of process garbage, I have to be open to the fact that this might actually create some kind of positive mutation where maybe we could see into the future or something.

It's highly unlikely, but it's just being open to the possibility of being wrong and being aware of my bias, which my bias is towards what have humans been doing the longest that got us here to a place where we have such a robust health, and now to see this rapid decline.

Because that's one of the things I'm sure that people have said to you, even though humans were eating that way back in the day, and then agriculture came along, "We're living longer now, Paul." What do you say to that?

DR. PAUL SALADINO: This is really important to talk about. So, if you look at these anthropology studies, Frank Marlowe did a bunch with the Hadza, and there's other authors that have worked with the Khoisan in Africa, these are the two that I'm most familiar with. So, this question's been answered.

If hunter gatherers like the Khoisan in Namibia or the Hadza make it out of childhood, so they make it 13 or 14 years old, they live as long as us. So, it's really a fallacy to say they live shorter lives than us. But if you calculate it with infant mortality, their life expectancy is low because there's a high rate of infant mortality in these cultures.

And it turns out that being a wild human living in the bush of Africa, is kind of a dangerous thing. Which is probably why humans had a lot of babies in the past, that's why other species make a lot of babies. Basically, during the reproductive years, many species are kind of just, they're constantly pregnant because very few of their children survive.

Now, there are many downsides to the society we live in now, but one of the upsides is that we live in a safer... We live in a safer world. There's not a poisonous snake crawling over to bite your kid. If your kid steps on that snake, it's going to die. There's not a cliff right there.

Or a cheetah or a hyena that's going to come in and snatch your baby. Or there's not all kind of dangerous things for kids to do that lead to high rates of infant mortality. And similarly, rates of death in childbirth for the mothers, if there's infections or sanitation and things like this.

So, if you look at adult life, which is really what we're talking about here, because we're talking about chronic illness. Now, then they dwarf us in terms of longevity, in terms of... Longevity in terms of health span. So, they are longer, they're stronger and more vital for longer than we are. It's something called squaring of the morbidity curve, that if you looked at a 65-year-old Hadza male, he would dwarf us, he would crush... The 65-year-old male Olympics, the Hadza's winning every day.

DR. PAUL SALADINO: In almost any feet across the population. Women as well, like a 65-year-old woman is going to be more vital, stronger...

SHAWN STEVENSON: Functional.

DR. PAUL SALADINO: Functional than a 65-year-old woman today. So that's what gets lost, is that their lifespan is the same, but their health span is greater than ours when you account for this high rate of infant mortality. And that's really, we're talking about. Because again, it goes back to what kills most of us today, it's chronic illness.

Very few of us are dying of infections today, so we've solved that problem, but in the process, we've created a bigger problem, which is obesity, metabolic dysfunction, diabetes, auto-immune conditions, GI conditions, depression, mental health illness. Those things are not really suffered by these hunter-gathers, especially the Hadzas and the Khoisan, they don't have these things. They're just not.

There are no fat hunter gatherers. And that I think is a great statement. And you could say, "Well, they don't have enough access to food to become obese," but I think they could eat a lot of the food they're eating and still not become obese. It's just they would probably be a little more muscular, maybe a little taller 100,000 years ago, because they had much more access to food. Their hunting lands are being encroached upon by other more pastoralist cultures that are farming.

So that it's true, the Hadza and probably the Khoisan in Namibia also, they don't have access to as much food as they would like, and they do have to supplement sometimes with things like corn meal and even seed oils given them by missionaries, unfortunately. But in general, I would say 80 to 90% of what they're eating is things they've hunted and gathered.

So, the closest thing we have to hunter-gatherers on the planet and their health is exemplary, and they have great longevity. So, this idea that they live short lives is just false, and it's important to really clarify that.

SHAWN STEVENSON: That seed oil and corn meal, it's the missionary position. Putting 'em in a missionary position, man. Listen, so again, just to expand our thinking and to really identify like this is what we really want is to improve our health span, it's not just our lifespan. We don't want to just have extended suffering. And we have this very idealistic view because of how things can get packaged up based on, still based on a bias, and it's not to say that this is negatively intended.

But when we talk about centenarians or cultures that live a long time, it tends to be this very clean, clear cut, and these messages that often aren't really accurate are tied to them, for example, that they're largely plant-based communities. Now, this is not... This is not an advocation against a plant-based diet or against a carnivore diet. This is an important conversation.

You said the "O" word earlier. Alright? There's a lot of good "O" words out there, alright, but you said "omnivore". And if we all just have a collective awareness, just basic awareness of ourselves in the place of time, evolution, being a part of this planet, humans can eat every type of food. We are omnivorous. The question is, what are the best foods for us?

And so, when we go solely plant-based or solely animal-based, we're probably going to find ourselves lacking in certain things. Now, we can be creative, and we could find out ways to supplement those things, but your most important advocation, you did this again, you even mentioned your supplement, but you were pointing back, "Hey, food first, let's go food first, because the food has the stuff."

But we have to be willing to experiment and we have to be willing to open ourselves up and to have these conversations as well. So, I wanted to actually ask you about being that this is the case, you just mentioned our skyrocketing rates of chronic disease here in this country, a lot of folks don't realize this, man, but this is what we do.

I'm staying on top of the data, the CDC published just their most recent numbers from last year, 60% of Americans now have at least one chronic disease. At least one. 40% have two or more. Alright? We are a society today that the majority of us have chronic illnesses. We're not well. It's the majority of us. And that number is still trending upward, by the way.

The question is, how do we get into a situation like that? How do we get into a situation where disease is normalized? And my question to you, and what I want you to talk about is, there is an obvious disconnect between what we're educated about what we should be eating and what our health outcomes are. These two things are not matching up in a beneficial way. So, I want to talk about some of the corruption in food policy, in education.

DR. PAUL SALADINO: Yeah, yeah. I want to talk about that, but I want to hit on a couple of other points you made before we go there real quick. So, omnivore is true for humans, but one of the things that I learned that I was never taught in pre-med or medical school, is that within zoology, within the animal kingdom, animals tend to be either plant-based or animal-based omnivores, meaning that 75% of omnivorous species either eat the majority 70% of their food as animal foods or plant foods.

So, this idea of omnivore as like I eat a little bit of everything is not really true in the plant kingdom. Even within the plant kingdom, animals tend to go one way or the other. Primates are a good example. Chimps, bonobos, they're pretty much plant-based omnivores. They do eaten meat when they're given meat.

This is a whole separate conversation that we probably won't talk about in this podcast, how we got from being plant-based omnivores as chimps and bonobos, to what I believe are animal-based omnivores, today as humans. But there are plant-based omnivores and there are animal-based omnivores.

Like a dog is an animal-based omnivore. Given its free rein as a wolf, it's going to eat most of its food as animal foods. And I think that looking at our history as humans, it's pretty clear we're now animal-based omnivores. You mentioned this a little bit earlier when you talked about the brain and the idea that the human brain gives us at this history, this lineage.

And you look at the size of the human brain, two million years ago, the human brain got way bigger. It went from about 600 CCs to 1500 CCs in the span of a million, 1.5 million years, after millions and millions of years of being the same size as our primate relatives. What happened? We don't know for sure, but a really compelling theory is we began to hunt more and eat more animals.

SHAWN STEVENSON: And cooking.

DR. PAUL SALADINO: Cooking too, yeah, yeah. Although I think my suspicion is it is mostly the animals rather than the cooking, but there's a compelling argument that's been made with the cooking as well. So, something happened there. Cooking allowed us to eat more animal foods as well. So, something happened in the human brain, and if you look at the nutrients that we need as humans, we don't do so well as plant-based omnivores, this is clear.

We need so many nutrients that occur only in animal foods. Creatine and carnitine, choline, anserine, taurine. Vitamin A in the retinal form. It's pretty clear, the blueprint is there. So, I think that humans are animal-based omnivores, eat some plant foods, but still remember animal foods, meat, organs, either fresh or desiccated. Dairy, if you tolerate it. That's a whole separate interesting conversation. These are where we get the most of our nutrients. And then they have very low toxins.

And then within the plant kingdom, the curiosity that I want to challenge people with is, are there less toxic plant foods? The other thing you mentioned were the Blue Zones. So, there's a whole podcast I've done on the Blue Zones, probably two or three on the Blue Zones, just

wanted to bookmark for a second, or just pin the fact that if you look at the Blue Zones, there's five technically Blue Zones.

Four of the five have large amounts of meat consumption. So, in Sardinia there's a pig called Sarda Pig. In Ikaria they have these feasts where they eat tons of meat. In Japan, they eat lots of pork, it's one of their most favorite dishes. And there was the study we were actually talking about before the podcast, where they looked at longevity in the Okinawans in Japan and they did not find a single centenarian in the vegans or vegetarians.

So, to suggest that plant-based leads to longevity isn't really supported. And then Loma Linda is perhaps the only "Blue Zone" where there is a significant plant-based diet as the ethos, but that's because the Seventh-day Adventists are there and it's a religious adherence to that.

And if you look at Loma Lindans, we don't have great studies, but the studies we do have suggests that in the vegans and the vegetarians in Loma Linda the fertility is quite compromised in terms of sperm motility and sperm numbers when people don't eat animal products.

And that could be an excess of pesticides in the vegetables, but I think it's probably also an absence of the critical meat-based nutrients that are essential for sperm development. Male fertility was what they studied specifically, things like zinc. There's not lot of bioavailable zinc in plant foods. So, I just wanted to... I just wanted to color in a little bit of what you were saying, 'cause those are two really important points.

SHAWN STEVENSON: I want to circle back to the topic, the question that I asked you, but this just really speaks to, again, the diversity of humans and human diets and inputs, but also the stuff that we'll leave out, like the story with... If we're talking about in Japan for example, leaving out the pork, because that's a bad word to certain nutritional dogma.

But in reality, again, we have to be open and understand that it's very diverse and humans can be successful doing a lot of things.

DR. PAUL SALADINO: That's true.

SHAWN STEVENSON: The question ultimately, you said this earlier, and I want to reiterate this, you had the audacity to say, "If you're thriving, hey, good for you. Keep at it." So, whether it's broccoli, whether it's brussel sprouts, whatever the case might be. So, because that's the thing that's going to come up is that there are people who are thriving doing a vegan protocol.

And we could frame things how we want to, but the reality is that that thing exists. And the vast majority of humans that are doing really well, and again, just getting in connection with your time with these cultures who are living in this indigenous lifestyle, they're omnivores with a tilt towards carnivorous framework. But again, still omnivores.

And we want to keep ourselves open to on that spectrum, where can we thrive? Where can we thrive? And that comes from nutrient dense foods, as you've talked about with these organs and high-quality sources of various fruits and things like that, and so I love this.

Now, getting back to that, these are real foods, real foods humans have eaten for a long time. Now we have dietary recommendations, this is kind of like the thing that's being spread out now, I went to a conventional university, had a Nutritional Science class, and I was taught the food pyramid.

And the question has to be, who funded this? Who actually put this stuff together? Because we become parrots, we start parroting off what we learned in school. I pay for this education, I'm just here to help people. But seeing people following this and not being well.

Today we have another thing that's come out from Tufts University that has... Where we had before, again, real whole foods, whatever that variety looks like on that spectrum, and they're saying frosted mini wheats are a healthier choice than say, eggs. Let's talk about it.

DR. PAUL SALADINO: It's crazy, dude. Did you know that in the nutrition guidelines for 2020 to 2025, which are the ones we're working with right now from the United States government, there were 20 people on that committee, and 19 of the 20 had ties to industry and pharmaceuticals. So they undisclosed, "We're not going to really... This isn't a big deal." 95% of the people on the Food Guidelines Committee for the United States.

And you and I are more in the weeds, we don't really care about what they're going to make food guidelines for, but that's what makes school lunches, that's what kids are taught in school, that's what... That's what's supported by food stamps and WIC programs, and so this is a big deal, what comes out of the... 19 out of 20 people had industry ties.

And most of the industry ties are two things like ILSI, which is the International Life Sciences Institute, which is basically the lobbying arm of junk food. Pepsi, Kraft, McDonalds. These companies are part of ILSI, and they pay so much money to this company, this lobbying thing, to put representatives in Congress and, "Don't step on our toes with this law or that law. You don't want to label, you don't want to change Labeling like this, 'cause it'll affect our sales."

ILSI, I think it was one of the major funders, the major ties to people with these guidelines. And it's going to happen again for '25 to '30 or the 2025-2030 guidelines, which will be out in a few years. It's going to happen again all over. And so, the Tufts food compass study was, I think it took them three years to come up with this ingenious, I'm saying that facetiously. Ingenious scoring system.

Who knows how much funding they got from the NIH, hundreds of thousands of dollars. And basically, it was a scoring system that was just... I was thinking about this. It was just based on negatives. I think that to get a high score, you just had to not have anything negative about your food. And so, the negatives were things like saturated fat. Well, okay.

The negatives were things like cholesterol. So, an egg scores low because it has cholesterol in it, and frosted mini wheats or Cheerios score really high because they don't have those things. When there's no positive accounting in the food compass that I'm aware of. There might be, but it doesn't seem like it, based on the food rankings for micronutrients.

There's nothing that says, "Hey, if you have more choline in this," which we know is part of phosphatidylcholine in every sub member in your body, a building block of acetylcholine, neurotransmitter central for optimal human mental performance. Any more choline then you're going to score higher.

Well, there's no choline in frosted mini wheats, there's no choline in Honeynut Cheerios or Cheerios or any of these foods or pop tarts. There's no choline in microwave popcorn. But eggs have choline and meat has choline, but because eggs and meat have saturated fat and cholesterol, they're at the bottom of the scoring.

We talked about this a lot, and I think you talked about it, a bunch of people in the health space were talking about it, and there were some pushbacks, people saying the Tufts food compass guidelines were not meant to be compared across food groups. So, they, Tufts did it by food group, they said like, "Okay, of all the fruits, we're going to rank them. This is the best fruit. Of all the meats, we're going to rank them, this is the best meat."

But in every group, they gave a rating on the scale of 1 to 100, and they clearly said that if the rating was above 70, the food was to be prioritized, between 30 and 60 was to be moderated or eaten in moderation, and under 30 was to be minimized. And so, when red meat gets a score of... I'm blanking. I think it's a score of 86. You know?

How is it not saying that you should prioritize frosted mini wheat and eat less red meat? And there's no appreciation for heme iron, B-12, vitamin K2, choline, creatine, all these foods that

are in red meat, all these nutrients that are in red meat, you're not going to get in any processed food.

So, when you really dig, what you find is that, again, who funded the food compass? Pepsi, General Mills, Kraft. Oh, no surprise here. And unfortunately, the main guy at Tufts in charge of this is a physician who's also one of the co-chairs of the 2022 White House Conference on Nutrition and is almost certainly going to be involved in the next set of nutrition guidelines for 2025 to 2030.

So, it's kind of this... It goes deep. I don't think nutrition changes are ever going to come top down, we're never going to get government regulation that actually realizes that red meat is valuable for humans, or that is honest about the fact that red meat is not inflammatory, or tells us about studies that show that replacing grains, whole grains in the diet with 8 ounces of lean red meat led to decreased CRP, led to decreased inflammation and decreased insulin resistance in humans.

You're never going to see that on CNN, they're never going to talk about that at the White House Conference on Nutrition because it's not compatible with their paradigm. It's kind of like so many other things we're seeing now, it's just this... The food has become politicized and unless you are on the right side of the aisle.

And I think it's probably for a couple of reasons that get very, very labyrinthine to unravel, but because red meat is connected with cows and cows are connected incorrectly with climate change, red meat can't possibly be good for humans. Or because saturated fat in cows raises LDL, and we know that...

I'm saying this again, facetiously, we know that LDL causes heart disease, saturated fat can't be good for humans. And just there are all these things that are built on a house of cards. If you really look at the data regarding LDL cholesterol and heart disease, it's completely flawed.

What we see is that "Oh yeah, this... " When you give people more saturated fat and animal foods, their LDL might go up a little bit, but their oxidized LDL and their LP little A, which are much better predictors of cardiovascular disease, go down. And when you do the reverse, when you give people seed oils, oils that Harvard University claims are healthier than saturated fats, Harvard urges people to eat seed oils like canola or soy bean, they might also put in there olive oil, which is probably way better than canola or seed oil, but still has issues, but the Harvard is telling people to eat seed oil.

And so when they're telling people to eat seed oils they might see a little lowering of the LDL, but Harvard is not going to tell you that your oxidized LDL in your LP little A, which are

indicators of how much of that fragile, LGL like a protein is getting oxidized, and that's really a strong precursor, that's a much better predictor of cardiovascular disease because we know...

I'm getting kind of technical here. We know that in the subintimal space in the endothelium of a blood vessel a macrophage comes into contact with an LDL particle, and the LDL particles not oxidized, that macrophage just keeps on swimming, and it says, "I don't need that. I don't want to eat that."

But if an oxidized LDL particle ends up in front of a macrophage, it triggers a scavenger receptor, and that macrophage engulfs the LDL particle, and that's the beginning of an atherosclerotic plaque, it's called a fatty streak or a foam cell, leading to a fatty streak.

So direct precursors to atherosclerosis are promoted by seed oils, but because of overarching paradigms and dogma that these institutions can't get around. Because if LDL cholesterol doesn't lead directly to atherosclerosis, then we have a major problem with a multi-billion-dollar Statin industry.

So, it's all tied together, it's all just this house of cards, and they can't possibly admit that something that raises LDL might be good for you, light saturated fat, when we know that stearic acid is an 18-carbon saturated fat that seems to lead to all sorts of health benefits for humans and occurs primarily in animal foods.

SHAWN STEVENSON: We'll just throw one study up of the mini. We'll throw up this study here that people can see folks taking statin have about a 30% increased incidence of developing diabetes, for example. This is just one. Alright? We've done master classes on statins and on LDL, all manner of cholesterol with Dr. Johnny Bowden is one of the greats in this kind of conversation.

But I'm on a mission to change some of the derogatory terms we attached to natural normal human compounds like LDL being bad. "You're the bad... You're the bad cholesterol." Humans make it. It's an incredibly important aspect of human health and the communication of our cells.

Now, can there be problems that occur? Yes. But the biggest contributor to these problems, because again, Hadzas don't have this issue, is our diet change, is devolution to eating predominantly ultra-processed foods. And the biggest thing, the most glaring thing that I think we all can just put our big boy pants and big girl pants on and just come to a collective agreement, which is, canola oil is an ultra-processed food in every sense of the word.

Frosted mini wheats are an ultra-processed food. Cheerios are an ultra-processed food. If these things are making up or being promoted by our most prestigious, seemingly most prestigious institutes of health as these are foods that humans should be consuming, there's a serious, serious problem. And somebody's, lots of bodies are getting paid off of our ignorance.

DR. PAUL SALADINO: Something's wrong.

SHAWN STEVENSON: Listen, man, this has been amazing. Obviously, we could talk for hours, man. You're one of the most insightful people that I know in this space, and I just appreciate you for the work that you're doing and for being so freaking just on it, always staying on top of the data, and standing up for people, empowering people in a world where obviously that can be shunned.

And I know that you went through a whole thing, you hit me up when it happened. When you were sharing so much information. And literally, "Here," you just like, "look at this journal, this is saying in regard to all this stuff that happened with COVID," you were just sharing a bunch of published data, but getting the censorship tag here, there and getting knocked off of these platforms.

And you came back with ferocity, you have now over a million followers on Instagram in months. And it's so incredible to see, because the thing is, empowerment will find a way. You are a great example of seriously, if anybody's trying to mess up your mission, find a way, don't give up, be creative, and that's what you did, man. And again, I just appreciate you so much. Truly. I know a lot of people don't get it, but I get it. I know how much work you put it.

DR. PAUL SALADINO: Thanks so much, man. So, it's an honor to be here. I think it's just trying to just create content that brings people value and make 'em curious, trying to be undeniable and connect the dots. I'm super grateful I get to do this work. I never thought I'd be doing this when I went to medical school, and now I've got the best job ever. I get to do creative things and talk to awesome people like you and yeah, hopefully make people super curious.

SHAWN STEVENSON: Yeah, my guy. Well, again, thank you so much for coming by man.

DR. PAUL SALADINO: Thanks, brother.

SHAWN STEVENSON: You can get back to your sun and fun now.

DR. PAUL SALADINO: Man, well, be in LA like for a little bit longer.

SHAWN STEVENSON: Alright, I appreciate you so much. Dr. Paul Saladino, everybody. Thank you so very much for tuning into the show today. I hope you got a lot of value out of this. Please share this out with your friends or family, we've got to keep this conversation going, we've got to spread empowerment, we've got a spread empowering conversation, insight, and most importantly, we've got to put things into play for ourselves.

Experiment, go on a path of discovery and decide what is working for me right now. What feels good? Give ourselves permission to change and evolve. And the ultimate goal here is to really thrive. Not just to survive, not just to get by, but to be as healthy and radiant and happy and empowered as we can possibly be today, in a world that is often seemingly trying to push these things out of us and out of our grasp.

You are so powerful to effect change in your life and in your family's lives and in your community. But again, it starts with us. You could send this directly from the podcast app that you're listening on, of course. And take a screen shot of the episode, you could tag me, I'm @shawnmodel on Instagram and on Twitter. You can tag Dr. Paul Saladino as well.

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