



EPISODE 812

The Terrifying Truth About Ultra-Processed Foods

Thomas Delauer Repurpose

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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 with me today. I've got a question for you. Do we really need to eliminate ultra processed foods? Now, this is a complicated question because Ultra processed foods make up a huge part of our diet today. According to the BMJ, about 60 percent of the average adult's diet now in the United States is ultra processed foods. What are these? Ultra processed foods. Are they not just processed foods with a little bit more pizzazz with a little bit more superpowers, maybe? Today we're going to unpack all of that and you might be surprised at my answer Because you're going to discover what ultra processed food actually is.

Why are ultra processed foods so attractive and pervasive in our culture in the first place? We're also going to talk about the connection between ultra processed foods and calories. Does our nutritional emphasis on calories overshadow the importance of what the food is actually made of? So we're going to address that question. And we're also going to talk about how ultra processed foods actually alter our absorption of calories. This and so much more. This was a very special interview that I did on one of the top YouTube channels in the world. All right. It has millions of subscribers and it's hosted by my friend, fitness expert, Thomas DeLauer, who asked me some fantastic questions that you're going to love to hear the answers to.

And this episode of the model health show is sponsored by the amazing folks at paleo valley has been my number one source of snacks for my family for years, including. They're real food bars and grass fed meat sticks and right now they even have new pasture raised chicken sticks including buffalo chicken All right grass fed meat sticks. Pasture raised chicken sticks so many other cool snacks. And by the way, we keep these stocked at the studio here for my friends for guests for our team. And of course, you should already know that they have the number one food based vitamin c supplement in the world with their essential c complex. No binders, no fillers based on the highest source Nutrient dense superfoods ever discovered, highest sources of vitamin c ever discovered camu berry amla berry and acerola cherry. Pop over there check them out paleovalley.com/model for 15 percent off store wide that's paleovalley.com/model, right now for 15 percent off store wide. And now let's get to the Apple podcast review of the week.

ITUNES REVIEW: Another five star review titled "a wealth of knowledge for free" by Shaki L. I just love Shawn and all the knowledge he brings into the world. I have learned so much from listening to his podcast and have made big changes in my life because of what I've learned. Thank you for sharing your wisdom.

SHAWN STEVENSON: Oh my gosh. Thank you. Ah, That's what it's all about. Thank you for sharing your voice over on Apple podcast. And yeah, that's what it's all about. Applying. Yes. Getting this incredible information, this incredible knowledge into our minds, into our hearts, but applying, putting some things into practice and seeing the real results. That's how we anchor and change in our lives and influence change and others. So thank you so much for sharing that. That's so powerful. And if you get to do please pop over to Apple podcast and leave a review for the model health show. And now let's get to this very special episode where I'm being interviewed on one of the top health shows in the world, being interviewed and asked some phenomenal questions by my friend, Thomas DeLauer. Please enjoy this very special interview.

THOMAS DELAUER: Shawn Stevenson, man, I've followed you forever, but I want to jump right into this stuff because we've been talking about processed food and some stuff about processed food. that can blow people's minds, like literally how it can affect our bodies. But then we'll get into some of the statistics, some of the mind blowing stuff that's happening in various countries and in our own country here in America. So man, give me the playbook. What's up with processed food?

SHAWN STEVENSON: All right. Humans have been processing food. forever. But there's a difference between processing of food and what we have today is this new phenomenon of ultra processed foods. And so processing food is cooking a food, whether it's a steak, whether it's baking a sweet potato, that's a process pushing the olives and getting oil out, coconut oil. Those are all processing to get those minimally processed foods, ultra processed foods. On the other hand, that's when you see a field of wheat And it becomes somehow, some way, a box of Pop Tarts, or a bowl of Lucky Charms, or a field of corn, and somehow it becomes Smack Cereal. Shout out to that little frog growing up.

And those foods are now so denatured that they're really, Not even considered real food. And right now we have data affirming that our cells don't really interact with these compounds like real food. And so just to throw one of these pieces of data out here to get started, a study that was published in the BMJ recently, this is one of our top tier medical journals, found that 60 percent of the average American's diet today, average American adults diet, is now made of ultra processed fake food. And to get that field of corn. into your bowl as a bowl of pops or a bowl of lucky charms. It's not just the corn. Obviously, there's a lot of synthetic ingredients. There's a lot of additives, preservatives, artificial flavors, and colors, and all of these things that at this point, we know they're altering our biology. Our cells are having a hard time processing these things. And what I want people to know starting off today is that what we're doing when we're bringing these foods into our body, we're making our tissues out of these things. And in my conventional high price university biology class, I was not enlightened to

the fact that when we're studying the human cell and we see the mitochondria, for example, which is this kind of glorified energy power plant of ourselves.

We weren't informed that our mitochondria are made from our menu. We weren't informed that our nucleus of ourselves are made from the nutrients that we eat. We weren't informed that our membranes around all of our cells are made from the meals that we eat. They're made from our menu as well. And so there's this disconnect in science and in medicine and looking at how our food is literally making up our tissues. But it's not just making up our tissues. It's also making up the energy that is allowing communication in all of ourselves. So there's a lot of talk today and I love it that we're talking about this stuff like hormones, right? Hormones and neurotransmitters. What are hormones? These are essentially chemical messengers that enable our cells to talk to each other.

They're like metabolic DMs, right? So they're like sending these messages, getting everybody informed. But what happens when we have too much of a message coming in from one place, right? Too much insulin that can start to look like spam and get thrown into the junk folder, right? So you start to develop insulin resistance, right? But the point that I want to make, first and foremost, is that, but even those hormones that enable ourselves to get all on the same page, those are made from food. As a matter of fact, hormones at their core, these are proteins. And if you're not providing your body with the raw materials to make those proteins, your body's going to be at a loss or dysfunction and just being able to communicate.

And this is part of the reason leading into this multiple epidemic of chronic diseases that we're seeing today. And this was according to the CDC just last year, by 2022 60 percent of adults in the United States now have at least one chronic disease. 40 percent have two or more. And one of the studies that I cited in my new book, the East smarter family cookbook was published in the Lancet. And this was going outside the U S as well, incorporating data from the U S but also over a hundred other countries. And the researchers affirmed that poor diet is the number one risk to human health. By far, about 11 million people die each year due to poor diet. And we're living during this strange paradox where more people are dying from the over consumption of fake food than from not enough food.

And so to put a little bit of a cherry on top of this opening statement with ultra processed foods. Yes, we do have the majority of our diet is ultra processed foods. Humans have been processing foods for a long time. There's nothing wrong with cooking a food or processing a food, but ultra processed foods are definitely altering the way that our cells are functioning and we can obviously talk more about that, but also it's definitely having a big impact on our kids as well.

THOMAS DELAUER: Now, this can be somewhat your opinion, but where do you draw the line from a processed food to an ultra processed food. For example there's plenty of really good, what I would consider minimally processed. Gluten free lasagna noodles or something out there, right? Things that like there's only a couple of ingredients in this, or maybe they'll take, make lentil pasta out of like lentils and cauliflower, right? And it's technically processed. And some people can really get upset by that. They're like, I can't believe you'd eat that processed food. And I look at that and I see that as pretty minimally processed. Where do you draw the line? Because it's, it's a hard one.

SHAWN STEVENSON: So there's two different perspectives I like to look at. Number one, what have we been doing the longest? We still have some hunter gatherer tribes here. On the planet. And generally, if we, for example, presented that hunter gatherer tribe with a bowl of lucky charms, they're going to have no idea where that came from. There's no resemblance or essence of anything real anymore. However, if you do present them with some bread or some pasta, they could, they can forecast or break down and understand potentially this is coming from these grains over here. And also we can make that in front of them. . So there's still a resonance. There's still some connection to something real.

Now with that being said, if we look at what the majority of our ancestors were eating these minimally processed foods, that's what helped us to evolve and become the people that we are being able to cook food. Some of the best data that we have, the affirmation is like our ability to cook food, to be able to extract certain nutrients from the food, basically to break down. The caloric energy to make it more bioavailable in particular with meat and animal products. And I know we also want to keep the door open and make sure this conversation is inclusive for all diet frameworks. But the main thing that I want people to know is I'm a huge fan of 80, 20 as well, or 90, 10, right?

We don't want to act like we don't live in the world today where there are all kinds of flavor experiences and foods, even ultra processed foods. that we might be able to interact with. However, if that's the majority of our diet, that's when we really see the most damage. And the funny thing starts to happen when we're eating predominantly real foods, whole foods, minimally processed foods, eating ultra processed foods doesn't necessarily feel as good, but our cells, our bodies can become conditioned. I know that mine has, and I know yours as well. At a time in your life too, we get conditioned to eating these ultra processed foods. We see symptoms of disease manifest. Health outcomes that we don't like or don't feel good about, but we don't often relate it to we're eating too many of these ultra processed foods.

And because our bodies have been conditioned, they don't, we don't notice the immediate feedback oftentimes, except one of my, one of my quote, guilty pleasures, which wasn't guilty

for me at the time. But when I was in college, I love going to seven 11 and getting a nacho with chili and cheese. All right.

And not only did I just pump chili and cheese and by the way, it's a pump. Okay. Bye. So a pump was pumping the meat out, which is a bad sign. It should be a red flag, pumping out the cheese. But what I did eventually was I took the chips out of the container, the pre kind of made container with chips. I pumped chili and cheese into the bottom, then put the chips on, then pump chili and cheese on top. So you get nice and gooey and I eat my nacho with chili and cheese. And then I would feel this symptom, which didn't have a prescription medication at the time of heart heartburn, indigestion. We've got the little purple pill now, but there's lots of different treatments for this, but I would feel so terrible.

My body was giving me feedback that food was hurting me. And actually I call my mom, I'm living on my own at this point. And I call my mom like, mom, I feel so terrible. She was like, just drink a white soda. So now I just go and get a seven up and drink seven up as the treatment. My body is screaming at me that this food is hurting me, this ultra processed food. And so what I would encourage people to do is just shift that ratio, right? We're at right now, 60 percent of our average American diet being ultra processed foods shifted around. Let's go 60 percent whole foods, or if we can, tip toe into 70%, we're going to see some great transformation taking place in our bodies just with that alone. So I don't want to villainize if we're doing like some lentil pasta or something like that, but that's just silly. When the majority of our citizens are eating fruity pebbles. and all these other ultra processed foods. We need to focus on that and come together, be more inclusive and help the people to shift the ratio.

THOMAS DELAUER: Now, if we look at the socioeconomic side of this, do you think a lot of the reason that people opt for processed foods is much more an economic reason, perhaps a convenience reason, or do you think they're flat out addicted?

SHAWN STEVENSON: That's a great question. And I'm very honored to be able to answer this because I come from a glorified food desert living in Ferguson, Missouri. When I was in college, I was commuting into the University of Missouri, St. Louis from Ferguson, which was maybe a 15 minute drive from there. But in this food desert, there's nothing attractive about it. I don't even like the name food desert because it's still a desert, sounds exotic. This is like we're inundated with processed food everywhere.

As soon as I come out of my apartment complex, there's a liquor store. There's so many liquor stores around. Lined with ultra processed foods, obviously alcohol and every fast food that

you can name was in like a two to three mile radius of my apartment complex. There are zoning laws that are in place in other places that don't allow for that.

It wasn't the case for where I lived and I'm not exaggerating. There were no gyms that didn't exist in my area. There was one park and although the park was mostly safe, 95 percent of the time. 5 percent you might get shot, it's just the nature of the beast. And not to mention with all of these pieces, but there was no yoga studios. Like I didn't know that existed. And so living in these conditions and the data is pretty clear on this. When we're experiencing a chronic disease and we're living in poverty, it's very difficult to make it out of poverty, right? The financial aspect and the health aspect go hand in hand.

Not that we can't, but it's just harder. And so the question is this number one, it's super cheap by the way. Like I can go to Jack in the box and get four tacos for 2 and some taxes. All right. Where an avocado costs 3. All right. I can get four tacos for less than it costs for one avocado. How is that possible? And that sent me on a really powerful exploration to find out how is this happening. And I was just finishing up my college economics class, by the way, and they were talking about some of these things like economies of scale. And he also mentioned this thing about invisible hand, right? Which what it really is, if we're talking about the invisible hand, it has to do with the culture.

So I'm existing in a culture. We're ultra processed, cheap food is the norm. That's all we know. So we're going to make choices. Our cravings are cultural. Our cravings are cultural. We're going to make choices on what we're eating based on what the culture has presented to us. And so the reason why, because those tacos, if we're talking about the ingredients, there's a meat component, there's the tortilla component, there's some random veggies in there and the packaging, the preparation, the sales process, the marketing, all those things are so cost intensive where seriously living in California. We can go outside and there can be avocados. There can be a ground full of avocados just literally falling off the tree. So my question was, how is that possible?

And a big part of that has to do with government subsidies. All right. So in my previous book, I shared a really fascinating study, looked at about 15 years of government subsidies and it. Our government spent about 200 million is 170 million investing in government subsidies for foods that largely end up coming through the draft through the window or in ultra processed foods. So corn, soy, wheat, but not, this isn't the Amber waves of grain that you might hear about, our ancestors reading, this is genetically modified dwarf wheat pretty much. And okay, it might've started with good intentions as well to feed Americans. but as with a lot of things, companies take advantage.

And so there was an analysis published in JAMA, Journal of the American Medical Association, looking at what happens when people are consuming government subsidized foods. And the researchers found that people who consume the most government subsidized foods had about a 30 percent greater incidence of developing obesity. They looked at their biomarkers like C reactive protein, they had higher levels of inflammation, insulin resistance. They were sicker. So truly our government is structured in such a way that we're literally feeding the problem of disease. And even with that being the case, I'm always, and I love this about you as well, I'm being balanced in my perspective.

Listen, this might've been, we're trying to feed people and that is altruistic. But when I talk about our government funding, this, that means us is coming from our tax dollars is feeding this cycle of sickness. And if folks don't know this by now, last year, We spent 4.2 trillion, 4.2 trillion in healthcare in the United States, by far the most of any country on earth. But yet we're, as far as developed nations, we're at the bottom. It's shocking. There's this strange phenomenon taking place. We're investing so much in a healthcare, but we're getting sicker and sicker. And to just tie this together. I was eating ultra processed foods and I'm not exaggerating because this is true.

This was just published in JAMA and I'm grateful that I can share this study in the new book. This was just published in the journal of the American Medical Association, looking at us children's diet consumption of ultra processed foods. They tracked children's food intake for 20 years. They found that in 1999, the average child in the United States diet was made of 61 percent ultra processed food. By 2018, it was almost 70% of our children's diet is ultra processed food. Now that's the average. With that average, there's going to be people on the lower end and on the higher end. I was on the higher end. So most of my diet was probably about 90 percent ultra processed foods because I was eating fast food every day, every single day.

And if I wasn't, I was at home eating ultra processed food. You wouldn't uncommonly find me eating a family can of SpaghettiOs or ramen noodles, I'd double up the packs or a box of macaroni and cheese for a meal and put some spices in and make it, seem like it's like a flavor experience. But that was making up the majority of my diet and the majority of my tissues. And that's why at the age of 20, I was diagnosed with an advanced arthritic condition. And so I had, I broke my hip at track practice, by the way, no fall, no trauma. I just broke my hip from running. And ultimately my spine was so degenerated that I was diagnosed with degenerative disc disease at 20. And that's years in the making.

It doesn't just happen overnight. And so I didn't realize the power of food and that I was making my tissues out of these things and I wasn't providing my body with the raw materials

to regenerate my tissues. But fortunately, thankfully, after a lot of pain and suffering, I found out how much food mattered.

And I was still in school at the time. So I shifted all of my coursework over to nutrition. I'm not going to say that I wasn't wildly miseducated in my nutritional science class in school because we were so focused on things that were not as applicable to real health because there was a disconnect we talked about earlier, but enabled me to get in a position to serve and help other people. Once I graduated, I opened my practice, worked as a nutritionist for many years, and also worked in the university gym for a lot of years as a strength and conditioning coach. So I got to see human performance. I got to see how much nutrition mattered, but the coolest part about it was I got to work with people from all over the world for over a decade.

And I got to see these consistencies in different cultures. One of those, by the way, is that each culture, no matter where they were from on earth, had a cultured food in their culture. And I was like, that is so fascinating. Like, How did our ancestors, these different respective places all get on board with eating some form of fermented food? Whether it was like a fermented bread in Ethiopia, whether it was fermented shark in Iceland, fermented cabbage dish, if we're looking at the Korean dish, the list goes on and on. There's something really special about it. And actually I shared a couple of studies on fermented foods in the new book as well.

THOMAS DELAUER: Yeah. It's wild, man. I'd come back to, no matter which tangent I go on with so many different topics about this or that. It's funny, like a common denominator in almost every health category that I talk about comes back to the benefits of fermented foods in one category or another. So it's like we inherently knew as people that this was doing something good and it comes right back to that feedback loop like you were talking about.

It's like your body telling you those nacho chili cheese thingies were not good, right? It's like there's something also inherently telling us this is doing good, right? Do you think that sort of the overemphasis that's out there right now on sheer calories in calories out, which we, you and I both know enough to know that thermodynamics are important and it matters. But do you think that some of the sheer focus on that has led it so that people maybe don't see the forest through the trees with this and they think calories, it's just calories. That's going to make up my tissues. And we're not focusing on nutrient quality to a certain degree.

SHAWN STEVENSON: I love this question. This is a perfect segue from my university education, which was Calorie focused, and I was in this big auditorium class and the professor, the first day he was talking about how, if you want to lose weight, you simply need to expend more calories than you take in. If you want to gain weight, it's the opposite.

And if you want to stay in the same weight range that you are, then it's going to be a match of the two sidebar. He was overweight, notably overweight, and he was a great, he was a smart guy, absolutely. And was the science that he was teaching, working for him and also for us as a people society wide.

And I know myself personally and so many people that I work with we did that thing. We went into caloric management and we might've gotten some results and some people do, let's not negate that calories matter. But for me, whenever I hear about any kind of term like that is so globally recognized and yet there's a mismatch in how it's all happening. I ask, where did it come from? And I encourage people to start to ask. It's like a good mental exercise. And so in my last book, I went back in history and examine where the calorie came from the phenomenon because our ancestors would like, when they're passing, food around the campfire 5,000 years ago, they weren't asking how many calories in that?

I'm trying to watch my weight. It wasn't a thing. People just ate food. And so calories actually entered the realm of science and physics. It had nothing to do with food at all. And Atwater was one of the early adopters and transitioning into food because we have the Atwater system actually on a lot of packaged foods today. And by the way, these packaged foods, they're not using a bomb calorimeter and incinerating the food and finding out how many calories are in that food. Just as a heads up for everybody. It's an estimate. All these things are just estimates and it's based on some math from the water system. But the question is how did it really get into popular culture with nutrition?

And it was a physician in the earlier part of the 1900s named Dr. Lulu Hunt Peters. All right, Dr. Lulu Hunt Peters. And she wrote one of the first dietary bestsellers. It took off like a rocket. And within those pages, she created a new framework of looking at food. And she essentially said, for example, I'm paraphrasing, you will no longer eat a slice of bread. You will eat 90 calories of bread. You'll no longer eat a piece of pie. You'll eat 200 calories of pie. She made this pivot mentally for our society to stop looking at food as food and all of its complexities, but to start to look at food in numbers. Another sidebar, she struggled with her weight even through that process of being this kind of glorified. And we're seeing this also in our health, so called health leaders today as well, and we don't need to get too much into that, but you could see that there's often a mismatch of the people in the top offices in government. Now with that being said, it did provide some value because we can start to look at the energy context of a food and a bomb calorimeter incinerates the food.

And basically we're seeing how much water can be heated up as a result of incinerating that food. But here's another lead into this point, which is our bodies are not bomb calorimeters that completely incinerate a food. There are certain things that are digestible. There are

certain things that are not, there are certain things that use more energy just to digest the food.

Like our bodies are so complex in how they interact with food and start to get tunnel vision. And this one little umbrella idea about food is it's so deficient. That's a great word. It's so deficient in the complexity of what food really is. And so how do we address this? We understand that yes, we can use calories as a means of understanding food from one micro perspective. But today we have all of these epi caloric controllers that we've identified that actually control what calories do in our bodies, because we know that calories interact with my body differently, from your body differently, from everybody else listening. And one of those, just to give folks a heads up, researchers at the Albert Einstein College of Medicine did some fascinating research and they found that there's a particular area of the brain that's determining downstream caloric interaction.

And what they found was that this rapidly growing phenomenon called hypothalamic inflammation. So inflammation in our brain. So neural inflammation, but specifically of the hypothalamus. which in many ways is like our internal thermostat is located there. HPA axis, a lot of folks who are into science have heard of this information superhighway, your thyroid is along that axis. Your gonads are along that axis, but the hypothalamic inflammation they found was directly leading to increased belly fat and insulin resistance and increased belly fat and insulin resistance was creating more inflammation in the hypothalamus, is creating this vicious circle. And researchers at Yale found that if, for some reason, there's disruption in what's happening in the brain, in its communication, for example, brain inflammation. Your brain could literally tell your gut to decrease or increase the absorption of calories from that meal.

We're talking, these are top tier scientific institutes. All right. Yale isn't just, it isn't, fluorescent community college. No disrespect. It's a community college at, in my state. These are top tier places, but people aren't hearing about this science that wait, my perception, what's happening in my brain could influence how many calories I'm absorbing from my food. Yes, absolutely. Absolutely. You can. And on top of that, one of the biggest fields right now that's just growing so rapidly, and I'm grateful for this, but we don't want to get tunnel vision on this as well, but the microbiome is having a moment right now for sure. And researchers at the Wiseman Institute identified that certain bacteria, clearly, if people have a higher ratio of these categories of bacteria, firmicutes in particular, you are going to absorb more calories from your food than your identical twin. So literally look, you can't get any more similar than that. But looking at identical twin studies, and this was compiled by researchers at St. Louis university, another shout out to my hometown. But this huge database of identical twins, again, finding that if they have a higher ratio of firmicutes. Compared to, bacterial DDs or

bacterial royalties. These are just two broad categories of bacteria, by the way, but having a higher ratio of these bacteria.

So what the researchers at Weizmann Institute, by the way, here's what they found. So this was crazy. They found that by altering the microbiome of laboratory animals, of these mice, they could substantially increase their caloric intake, assimilation and make the mice gain weight, even eating the same diet, all right. And here's the crazy part. How they did this was taking bacteria from humans and adding them, putting them into the mice. So they disrupted the human sleep cycle. All right. So they basically, put them through multiple time zone change and they seen a change start to happen in their bacteria ratios that more was correlated with people who had insulin resistance and obesity.

Just by their sleeves being disrupted temporarily and put this into mice and it made the mice gain more weight. All right, crazy stuff, but they could do the opposite. So people who had a lean, what they call lean bacteria makeup added to the mice eating the same diet, the mice gain less weight, all right. So our bacteria have a huge influence. It's another epi caloric controller. Alright, so we've got our brain as an epicaloric controller. We've got bacteria being an epicaloric controller. We've got the makeup of the food itself being an epicaloric controller because the protein fraction versus carbs versus fat.

Your body is going to, you mentioned the thermogenic nature of food. It's going to metabolize food. Certain foods are more expensive calorically to process. Protein is that category. And part of the reason it is necessarily because protein is harder to digest based on I've been in this field for 21 years based on the majority of data and also just a little bit of logic. I feel that. that energy focus on protein is because protein is so valuable. I mentioned earlier, it's you, if we're going to have hormones, if whether it's testosterone, whether it's insulin, whatever, we need protein building blocks to make any of that stuff. Your body takes it seriously when it can get his hands on some high quality protein, it's going to do everything it can extract every little bit of that because it's made, it's making so much stuff.

Last piece with that, and I'm just going back to university biology class, DNA to RNA to proteins. DNA to RNA to protein. When I see you, I'm seeing the protein you've eaten predominantly. Of course, the minerals are in the mix there, but it's mainly proteins. Proteins are the ultimate kind of copies that are getting printed of us. Now, the cool thing where we're at today is that we know about, I mentioned epichloric epigenetics, and one of my mentors, Dr. Bruce Lipton, who really helped to impress upon popular culture epigenetics. And he said, He shared with me that this was years ago, and now we're just now catching up to this. He shared with me that depending on the environmental input, whether it's a food, nutrigenomics, nutrigenetics, a food can alter the gene expression, the proteins that are getting printed

There can be 3000 different variations from one bite of food. This is how we're so diverse. It isn't because we have a lot of different genes. Human genome project. We've got 20, 25, 000 genes. There's corn that has more genes than us. Real talk. We're so different because of epigenetics. Our potential to be so much, so many different things is so powerful because unlike any other species, humans, we're not just a product of our environment. We can create our environment. And last little bit here. One of the things he always kept referring me back to, even what I get ahead of myself with. Nutrigenomics and nutrigenetics. And just because I'm so obsessed with food at the time, he's like Shawn, it's the mind first. It's always the mind first, because your mind alters your chemistry instantaneously.

And your perception, even of the food that you're eating is going to determine the effects that it has on your body. And one of the coolest studies that affirms this was done by Aaliyah Crumb and her and her assistants at Stanford at the time. And they did the milkshake study, you know about this?

THOMAS DELAUER: Yeah.

SHAWN STEVENSON: And so they blended up a batch of milkshakes and all the milkshakes had the same amount in them, same amount of calories, but they slapped different labels on them. One was the quote indulgent milkshake, high calorie milkshake, and we'll just say that all the milkshakes were 380 calories. The high calorie indulgent milkshake, they put a label of 620 calories on there. Then they had the. calorie since the shake, right? Being sensible in your calories. They slapped the label on there and said, this is 200 calories. And so after allowing, giving out these different milkshakes, but they're the same amount to different test subjects, they found that people who consume the indulgent milkshake actually had a significantly higher increase in leptin, our satiety hormone, and a significant decrease in ghrelin, like our glorified hunger hormone.

They were more satisfied. just based on their perception. They didn't have more than the other people. They just believed they did. The people who had the sensi shake, the sensible milkshake, they, their ghrelin barely budged. It was as if they didn't have anything. So guess what's going to happen. They're going to be hungry again soon after this was all based on perception. And so truly the mind first. and being more mindful of our mind management because we're not, it's not just you are what you eat. It's your, what you think as well.

SHAWN STEVENSON: We've got a quick break coming up. We'll be right back. How can we get our kids off of all this crazy ultra process food consumption? The great step in doing this is changing up. What our kids are drinking, our kids drinks are a fast delivery system for the good stuff or the not so good stuff. And I grew up, if you grew up much like me drinking Capri

suns, fruit punch, all manner of soda, the off brand stuff and the expensive stuff. Dr. Pepper is not a doctor. All right, grew up drinking all of that stuff and of course just flooding my body with high levels of blood glucose and insulin and all manner of ultra processed, newly invented chemicals.

And so being able to switch up what our kids are drinking, provide our kids some healthy beverages can be a game changer. And my friends at Organifi are dedicated to this mission too. They've got a special superfood blend just for kids. It's called Organifi Kids. Easy greens and it's providing our kids with some of the most micro nutrient dense superfoods ever discovered, including Moringa, spinach, carrot, and coconut water and more. And it's in a tasty flavor just for kids. The reviews for Organifi Kids Easy Greens are off the charts. So kids are loving it and parents are loving it as well. You're getting a micronutrient blend with a sweet apple taste that kids enjoy, probiotics and enzymes for optimal absorption. And of course it's organic and free from fillers and additives. Head over to Organifi.com/model, and you're going to get 20 percent off their Organifi kids, easy greens, and also the Organifi red juice blend and just store wide any of their incredible organic blends. Again, go to Organifcom/h model for 20 percent off. And now back to the show.

THOMAS DELAUER: You've got all this food out there that isn't organic. You and I know it is not healthy, but by some random standard, some food market or somewhere says it's low sugar or low fat or something. So we're going to, but healthy on it for someone that isn't familiar with the terrain, perhaps that's changing the environment, right? You've got this 1000 calorie frozen TV dinner, but somewhere slapped on it is healthy. And now. If I gave that to, let's say, I've got some loved ones in my family that are very overweight. If I gave that to them, they'd probably finish that and be like, Oh, that didn't satisfy me at all.

Like that dang healthy TV dinner, give me a banquet meals one. Let's bring it to town. Actually you ate more calories in the banquet meals one. It just said healthy on it. So it makes me wonder. It's yes, there's our perception, but there's also a forced perception. Because this environment is created. And it's interesting with that I remember there was a study that came out in 2022. I can't remember where it was published. It was literally looking at nuts and how quickly you consume nuts and the amount of calories that you would absorb from chewing your nuts thoroughly versus just say a handful of nuts and just chew them a couple of times and swallow them was ridiculous, right?

Because you're not going to, you're masticating these nuts a lot, but it's, we've all kind of been in this situation where if you eat a handful of nuts and you don't chew 'em, you get some digestive discomfort and maybe it comes out the other way looking very similar to how it went in. 'cause we're not gonna break 'em down more in the right cocoon. Yeah, exactly.

So with that, you're not extracting the calories out of that. So that just makes me wonder, again, when we start cooking into the ultra processed food, the food that has just been pulverized into the smallest fragments where like Perhaps you're absorbing more calories out of ultra processed food than you are out of making a nice pizza with some, diced tomato or some, some like stewed tomatoes or something like that, where you actually have a lot of work to do to actually digest it. There's a physical, mechanical aspect of it as well.

SHAWN STEVENSON: Yeah. Oh man, it's so good. Specifically the Atwater effect. I mentioned this earlier in the context of calories because Atwater was one of the first scientists to parlay. Calories from physics into nutritional science. And one of the studies, and by the way, of course, maybe we could throw it up for everybody, but it was looking specifically at eating nuts. It was almonds. And they refer to this as an at-water effect where they were consuming, maybe we'll just say 300 calories of almonds, but they only netted like 160 of those calories because energy was being used. If you're chewing the nuts and of course to be able to extract the nutrients from it differently And if you're eating a different food that, as you just mentioned, an ultra processed food, this is so cool.

And also like very Gargamel villainous as well. Food scientists have manipulated our desire to eat tasty things. There's nothing inherently wrong with our desire to eat tasty foods. We evolved. If you have every, everybody, have you ever thought about why certain animals eat certain things? Like, why does that giraffe go for that? Why does that sheep go for that? Why does that Puma eat that? We're all driven biologically to eat things that tastes good to us, that we desire, that feel good. Also, when we eat them, we evolved going after tasty things like hunter, gather tribes today. If they come upon some honey, guess what?

They're all over it. They might predominantly eat, whatever over here, these organs and some nuts and whatever. But when they come across something tasty, they're flipping out. We have one of the most complex flavor receptors. Like our pilot is so complex and remarkable of any species because of our nose. Actually the human nose, we might not be like a bloodhound. We could sniff, at the airport, that kind of thing. So we don't, we negate how strong our nose is, all right. Our nose is really about, it helped us to evolve. This is why we evolved to be the apex species here on the planet is our ability to sense.

It's the safety of food. That's how we developed it, right? Because it's sound, it's taste and also it's smell and sound is so important as well. There's actually a Nobel prize one, it's called the sonic chip experiment. It was the egg Nobel prize, which is like stuff that kind of make you laugh, but also make you think.

But the sonic chip experiment, they had test subjects to, they found a uniform crunchy food, ultra processed food, which again, if we were to eat this food, the batter that it all came from, it would not taste very good or we wouldn't have the same connection to it. But they took a can of Pringles because they're very uniform, same density, and they had the test subject to wear headphones. And as they would bite into them, they would change certain aspects of the sound. And once they adjusted it, the crunchiness, the sound of the crunch to a certain frequency, Test subjects suddenly thought that the food was fresher, like 15 percent fresher and more satisfying based on the sound. Because through our evolution, sound was also indicating if we bite into a crisp apple versus a mushy apple, it's going to give us feedback that this food is safe to eat.

And so ultra processed food manufacturers have manipulated our desire to eat tasty things. There's nothing wrong with liking tasty food. but we need to be aware of this. We need to take back control of our palate. Absolutely. Because one of those things is this vanishing caloric density phenomenon, which is like you eat that Pringle or a Cheeto and you get a couple of bites and it seems very crunchy and complex, then it disappears. And essentially, the food scientists have found that it essentially tricks our brain to think okay, we just had something that's so dense. Okay. It's gone. And so your brain doesn't really identify that you ate as many calories as you ate. All right, so we keep eating and then they have the nerve to tell you exactly what they're doing when they say you can't eat just one.

They're telling you like we got you. We're doing some David Blaine stuff with your power, right? So we know this phenomenon of vanishing caloric density, but most importantly is the manipulation of flavor. Flavor is one of the most important elements of all of nutritional science, of all of human health, of all biology. Through our evolution, there's this phenomenon called post ingestive feedback. Through our evolution, we would eat a certain food. Let's just say our ancestors came upon a bush of berries and they're eating those berries. And maybe they're picking up some selenium, some copper, some amino acids, some vitamin C. Now, associated with that particular flavor, we know that we get these particular nutrients as post-ingestive feedback.

And these experiments have been replicated in different species as well. All animals do this in particular, sheep were allowed to like once they became deficient in certain things. They can manipulate what foods they would go for based on changing the flavor profile and making it more attractive based on the nutrient deficiencies they have. And so if we were living in a normal context where we didn't have ultra processed foods. If we developed a deficiency in vitamin C, in selenium, or copper, as I mentioned from those berries, we would develop a craving to go and find more of those berries. That's how we were designed to eat. And this is what other animals do.

Here's the problem. Food scientists have created one of the inventions recently was called a gas chromatograph where they can identify the flavor that makes up that berry. We'll just say it's blackberry. Now they've isolated the chemistry that makes a blackberry flavor. And now we can add that blackberry flavor to soda, to pop tarts, to all these other things that are not actually blackberries.

So now it starts to really muddy up those metabolic waters and at Post Ingestive Feedback, it's so befuddled and confused that we don't even crave real food anymore. We don't know what's real. And so when I'm talking about taking back control of our palate, food isn't just food, it's information. So when you start to bring in real food inputs, but making sure here's the key because ultra processed foods are tasty as hell. We've got to make sure these real foods are tasty as well, like soup equal or even more and I'm telling you this is possible because most of our most incredible food experiences are not from ultra processed foods. They're from real food meals, oftentimes with people that we care about. So it can be more satisfying and enjoyable, absolutely.

But we take a delicious food that's having a moment right now as well. The sweet potatoes are out here heavy. All right. We've got all these different varieties of sweet potatoes that are now on store shelves. Japanese sweet potatoes, got blue sweet potatoes and purple sweet potatoes. And of course the conventional orange sweet potatoes.

THOMAS DELAUER: That's awesome.

SHAWN STEVENSON: We can bake a sweet potato. We can mash it, make a hash. Cool. What if we make pancakes out of it? Sweet potato protein pancakes. It's one of the recipes in my book. And now we've got this delicious flavor experience where in America, we love pancakes. We're pancake culture. We're brunch culture. I know when I was eating ultra processed food, living in Ferguson. McDonald's hotcakes and sausage. That was my jam. If I got up in time to make it. And that reminds me of Adam Sandler. I don't know if you saw big daddy and they were rushing trying to get to the McDonald's breakfast where it closes.

And that happened to me before I thought it closed. It stopped at 11 and I got there. It was like, we'll say 10 58 or something, but it stopped at 10 30. But making these pancakes, for example, my wife and I can make up a batch. We can eat some now, freeze them. So my youngest son, when he gets up in the morning, he could just heat them up, get himself some fruit and he's got his breakfast. He's good to go, and he also, these are things that we can teach our children because our culture is influencing our interaction with food. My son, he just turned 12 last month, but he's been able to make his own breakfast, make some eggs

and, grill up some whatever for a couple of years. Kids can do this stuff, but it's just like creating the atmosphere and environment where they're able to do it.

So that's another big piece of this is We've identified some really remarkable foods and even with that sweet potato, by the way, that color, those anthocyanins have been found funny enough to influence the memory center of our brain. The hippocampus potentially enhance our memory. Like that's pretty damn cool versus some bleached, refined, genetically modified flour using to make pancakes. We can have the base of the pancake be a delicious sweet potato.

THOMAS DELAUER: What would you say as takeaways for people that are, let's say, maybe they're addicted to processed food? What are, let's say, three things that people can do to get off the processed food?

SHAWN STEVENSON: Number one would be to pay attention to, and I broke this down, actually, I've created these food charts, and these are all science backed, to identify and just give an overarching theme to it, a scary choice, a sufficient choice, and a smarter choice, and looking at the domain of, say, oils, right? Again, humans have been utilizing different oils for thousands of years. This is not a new thing. Olive oil is historic. And actually, research at Auburn found that olive oil is one of the few foods that could potentially repair the blood brain barrier that gets damaged through the consumption of ultra processed food that's damaged due to neuroinflammation.

So it's helping to break that cycle. That vicious cycle that we talked a little bit about earlier. And so olive oils, there's something special about it. Oleocanthal rich extra virgin olive oil, just to be clear, and also put up head to head olive oil versus, soybean oil, for example, and seeing people losing more weight, more belly fat, more greater drop in their BMI going up head to head, same amount of calories. There's something special about that food. So that's going to be in the smarter choice category, but sufficient choice might be the non organic version of it, right? So that's sufficient. If we can do that, it's probably going to be better than the highly refined cold vegetable oil. And there's a lot of controversy around these different oils right now.

And I love it. I love the people that have these conversations, but for me again 21 years, I understand this stuff forwards and backwards. I'll give you a couple of things. Number one, this is published in the journal inhalation toxicology. Just looking at how different smells affect human biology. They found that just smelling the fumes of vegetable oil during cooking can damage human DNA.

All right. Just smelling it. All right. Also, I shared a study in the East smarter family cookbook in BMJ open heart, British medical journal, open heart, looking at cardiovascular health. And seeing a significantly higher incidence of heart attacks, strokes, and cardiovascular disease when people have a higher intake of vegetable oils.

This isn't just made up. The data exists. And at the end of the day, though, I'm still, I don't want to villainize it because it is a new invention, but this does not mean that it can't have some benefit. However, most ultra processed foods, funny enough, are littered with these vegetable oils. They're not using olive oil. They're not using coconut oil. It's very cheap. And if anybody has ever gotten the chance to see, and they could just go to another YouTube video and look up how canola oil is made and see what it goes through. It is by definition and ultra processed food to take the oil from corn or from the canola plant.

It involves high heat extraction. It involves chemical solvents to try to break down and pull these oils away from its substrate. It involves utilizing deodorizing agents because it doesn't smell good. The list goes on. It is nasty. It is a nasty process and it creates this product that we've only recently implemented in human food supply. Okay, so we've got just a couple of decades versus thousands of years with coconut oil, with ghee, with tallow, with olive oil. So I'm going to lean on just logically what humans have been doing the longest and what long live cultures all over the world are still using. They're not using canola oil and the different blue zones, for example, if we're looking at places in Italy, for example.

They're heavy on the olive oil heavy on it. So that'll be number one, looking at those charts in the book scary choices. Be very cautious of those you don't have to avoid them completely but be very cautious. Sufficient choices and smarter choices. And don't beat ourselves up because it goes back to the mind as we talked about with Bruce Lipton and this epigenetic influence. However, the best time to eat a food that might be questionable is when we're in good spirits, when we feel good, but we tend to do it the opposite. When we feel bad, we have this whole phenomenon of stress eating and our thoughts are going to influence how that food is interacting with our bodies. So that would be number one, paying attention to those different categories. Number two would be, and I'm grateful to share this because a lot of people don't get this opportunity, but working as a nutritionist for about a decade.

One on one context, but also working with organizations, I saw this really strange thing happen, which I wouldn't have expected when people were coming in and they were wanting to, maybe they're on metformin and they've been struggling with their blood sugar for years and they were trying to lose weight.

And their goal was to potentially be able to be free of this condition. And I would help them to reverse engineer this is how your liver works and your pancreas and your fat cells and all the things. And I could see the light come on in their eyes and they'd be excited.

Oh my God, like I had no idea this was happening in my body and now, but I've got a tie in a leverage point. They've got the education, but I need leverage, psychological leverage. And so asking people, why did they want to achieve this particular goal? Like, why do you want to lose this 50 pounds? Why do you want to potentially not have to be on medication for the rest of your life? Why? 99 percent of the time would be because of their loved ones. They want it to be a good example for their kids. They want to be there for their daughter's wedding. They wanted to just live their best life and be able to be free and to enjoy their time with the people they care about. It would usually be about family, but when I asked them, what is the biggest obstacle in getting those results? Funny enough, it was usually their family. My husband, you don't understand. Obviously my kids, they won't eat this, whatever. I'm out short order cook. I heard that so many times. I'm a short order cook.

I got to make different meals. If I'm making a healthy meal for myself, I'm making different meals for everybody. And so eventually I'm grateful that I got this. I stopped working with people and I started working with families because the culture is the key. The culture is the key. Our larger culture escape here in the United States, it's not doing well. As mentioned, 60 percent of American adults now have at least one chronic disease, 40 percent have two or more. It is now abnormal to be disease free. That is the fact. That's the state that we're existing in. So if you are healthy, you are not normal. All right. Not that normal is normal today, but that's just the state of affairs.

And so with that being the case, when we go outside our doors, we're inundated with messages to eat foods that do us metabolic harm. We are inundated with information that makes movement so difficult to attain because we have so much convenience today in our society. We've taken movement out of so many aspects of survival, not to villainize those things though, right? DoorDash is awesome and it comes at a cost because no longer do you even have to go to the grocery store. And so with the larger culture scape being unwell, And there's this great quote from Krishnamurti that says, it is no manner of health to be well adjusted to a sick society. All right. We have a tendency to, again, we are a product of our environment, but we're also creators of our environment.

You and I both have been working to change the macro culture for years and it is altruistic. It's amazing. We've made a difference, but it's hard and the difference has not been enough yet. The power is really focusing on. Controlling the controllables and helping people to create a healthy microculture.

The macroculture might not be well, but focusing on creating a healthy microculture and what I was doing to help families, coming in, I'm coming in as the outside perspective and I could see, Oh, the, the oldest son, he loves basketball. So I'd have a 10 minute conversation with him, connecting certain foods and nutrients and things to his athletic performance.

He's lit up, let's go. So same thing, whether it's the, I'm working with the husband and the wife, just having a conversation like, what are her goals? What are you into? What do you like? And we find these particular things. It's Oh, I could do that right now. We start to match up psychological leverage for the entire family. But here's the key. When we create a healthy microculture in our environment, the goal is to make health easy, make healthy choices easy. It's just what we do. There are people right now in Thailand, like who live by the rice paddy. It's just easy to eat real food because that's what they know. They don't know that 7 Eleven exists.

They're not dealing with the heartburn that I was dealing with. They don't know that people are going to Burger King and getting Whoppers. They're just eating fish, fermented foods, and rice. They're eating real food because it's real. Cravings are cultural. That's what they have in their environment. That's what they're aware of. And so create a healthy microculture that makes healthy food choices easy. That's the key. So it's just automatic. Same thing with movement. My family, every time we walk in and out of the house, you're going to see a slew of kettlebells, steel clubs. You're, if you're trying to leave the house, you're going to walk past this tank sled as well.

It's always going to be there talking to you, right? Funny enough, every one of my family members are utilizing those tools on a regular basis. It's just there in the environment. We have a culture of movement and fitness in the family. It's what we do. And when we don't do it after a certain amount of time, it doesn't feel right. Like something's missing, something feels off. And so that's the key focus on creating a healthy microculture in your household to make healthy choices, easy. Pay attention to the basically decent, better, best options when it comes to your food. And most importantly, Last secret here is have fun while you're doing it.

Let's make these real foods into enjoyable food experiences. Real food, eating healthy should not be about suffering at all. That's a big problem in our industry where we make it like we're taking away people's favorite things. It is stupid because the natural human tendency is to rebel. We don't like to be told what to do. I can't tell you how many times people are sitting in my office like, okay, I'll do all this, but just don't take my bread away. I didn't even say nothing about bread, but they're just coming in with their assumptions that I'm about to take away the thing that they love the most instead of Oh, you do this here, add this in, or we take that bread or we let's, how about, can we use this bread instead?

Is there, are you cool with this? Finding options to upgrade things that people are familiar with the bridge to get from a Big Mac to a shot of wheatgrass, like that Brit. Come on now, that bridge is blown up a long time ago. That's silly instead of, okay, we've got this particular food over here. Let's do a grass fed burger. Let's do a salmon burger. And we're getting all of these nutrient inputs, but it has to be delicious. It has to be as good or better than that. And it can be with real food. So I think that was that man.

THOMAS DELAUER: Well, Shawn, where can everyone find you and where can everyone find your book, man?

SHAWN STEVENSON: Awesome. So the new book is called the E Smarter Family Cookbook. It's available everywhere books are sold. And I'm grateful just as of this recording, I just found out it's a USA Today national bestseller and man, coming from where I come from living in Ferguson, Missouri, and it's definitely not the hub of health. To create a book that's making this impact is very special.

Thank you so much for tuning into this episode today. I hope that you got a lot of value out of this. You already know if you enjoy this, sharing is caring. Share it out with somebody that you care about. You can share this on social media. You can send this from the podcast app that you're listening to. And of course, pop over to the YouTube channel. This is where you can Check out the YouTube videos that we do be able to enjoy some incredible graphics and the studies that we talk about. We provide them on screen for you. And of course, just being able to hang out with us in the studio. So pop over to the YouTube channel and subscribe there as well.

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