



EPISODE 399

How Your Zip Code Can Control Your Health & How To Fix Our Food System

With Guest Dr. Mark Hyman

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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 really been thinking recently about our relationship with food, and how intimate of a relationship it is. We think about intimate relationships being with, you know, the people in our lives, significant other, but food is a truly intimate relationship, because we're taking something from the outside world and putting it into our bodies, alright? Name one thing that's more impactful and intimate than that, because, as my guest today said, "Food isn't just food, food is information." So, what we're taking in from the outside world, in the form of food, is informing every single cell, our DNA, our genes, on what to do. On how to express themselves. On how to build proteins. On how to move hormones and neurotransmitters throughout our system to communicate. Cholesterol building and the transport of those things. Our liver function. Our brain function.

All of it is intimately impacted by every single bite of food we eat. It's a big thing, very powerful, and this is something we come out of the womb knowing how to do, we come out consuming, we come out ready to eat. Now, for many of us, we have "el nipple" as our first source of food. You know, mother's milk. But today, you know, our system is a little bit different, our society is different. There was a time... Things are shifting, there was a time when mother's milk was pushed in science to be inadequate, and formula was actually pushed as the ideal first food for babies. Now, we've cleared up or misconceptions about that, we know that mother's milk is the most valuable thing for newborn babies. But, even soon, thereafter, we are bringing in different foods. And through our evolution, it would be a wide variety of different foods.

But again, in recent years, in our recent culture, that variety has begun to become more and more and more minimal, and the impacts on our health has become a place where we're seeing disease and obesity, at a place of epidemic proportions. And I think that a big part of this is just kind of... If I'm thinking

about the way that I grew up, I grew up in an environment where I didn't really know that there was a difference in the food that I ate. I didn't know that there was a difference between a fast food hamburger and a wild caught salmon, or broccoli, or a candy bar. I just thought it was stuff you eat.

And growing up in the environment that I did, even in high school, we'd have a lunch line, where there's like the meal of the day. You know, you got the "mystery meat". You know, what is it? I don't know. But, you know, the lunch lady would be doling out, preparing some stuff in the back. But it's largely processed foods, from not the best sources, most likely. But predominantly, most kids, I'd say 9 out of 10 kids, are going through the fast food lines, right? Getting our burgers, getting our pizza. I'd say five days out of the school week, four days I'm eating the little personal pizza, and I also get a pretzel with cheese.

I didn't really care too much for the pretzel, I needed that cheese. I needed that Cheez Whiz hitter, to dip my pizza in. And that was my fuel for the day, and maybe have a soda, or a juice. Or the soda companies were actually on our school campus in high school, doling out and giving away samples of their new products, whenever they come out. SURGE was one that hit when I was in high school, right? It was just supposed to be this energy drink/soda. How on earth are they able to come and to infiltrate our bodies and our minds of our students on a high school campus like that? It's wildly inappropriate. But the thing is, if we're not aware, we're really not aware. Because I just saw it as like, "Oh this is cool, right? We got free samples."

One of the biggest drawing points, for so many people, especially if you're growing up in poverty, is my favorite price, which is "free!" If it's free, I'll have some of that, right? And that's something that can fuel you, get you to another day. But it's also potentially fueling chronic illness, because many other programs that are designed to support people's health and wellness are actually largely giving food from government subsidies, and also giving access to highly processed foods.

And so, how do we break the cycle, how do we really figure out how to get healthy food into people's hands, into their communities? And that's why I'm so excited about this episode today, to change the culture in our schools, and in our communities at large. And this book and this project from our guest, Dr. Mark Hyman, is a total game changer. So I'm really, really excited to have him on today. And, just really quickly, one of the things that I've learned about in recent



years... You know, it's been easily over a decade that I've been really trying to help to break down the misconceptions about dietary fat, but only recently, in the last few years, has medium-chain triglycerides, or MCTs, become very popular, and something that people are really striving to get, a nutritive source of these MCTs. And part of the reason is that medium-chain triglycerides have this really interesting ability to be able to cross the blood-brain barrier and to feed your brain cells.

There's only a couple of dozen nutrients that have that ability of the hundreds, even thousands of nutrients, many that we still don't even know yet. Only a few dozen have the ability to actually go into the VIP section in your brain, via crossing over that blood-brain barrier and feeding your brain cells. That's pretty freaking remarkable, and that's just part of it. And another part of the MCT oils lore is the fact that MCTs also trigger your body to produce more ketones, and ketones are also known to be able to fuel our brain cells. Not all of our brain cells can utilize ketones or MCTs, some is driven by glucose, right? But many of our processes for our brains can be driven by these cleaner burning fuel sources. And this is just one of the reasons that I'm a huge fan of MCT oils. And many people today, as you probably know, are swapping out their morning bagel, or their morning muffin, and they're going for these kind of upgraded coffees, and having these "elixirs", these different mushroom teas, and coffees, and things like that, and adding MCT oil to the mix.

And I'm a big fan of emulsified MCT oils, because it's kind of like a coffee creamer, and they taste amazing. They make the process of enjoying these MCT oils and driving you to get them in your body so much more attractive. And now, here's one of the real reasons why this is a great swap, right now. According to data cited in the International Journal of Obesity and Related Metabolic Disorders, MCTs have been found to boost the oxidation of stored body fat, while increasing satiety, at the same time. Again, there are very few things that can do both. Get you a fat that can do both, alright? It increases satiety, and helps you to burn fat at the same time. There are very few things that can do that. MCT oils is one of those things. And so, definitely pop over there to onnit.com/model, get yourself some emulsified MCT oil. They also have their original MCT oil, as well. It's from high quality sources, this is coconut-derived, and it's also fair trade and organic, all the good stuff that we're really looking for when we're getting products like these. They're doing it the best way possible.



And that's why I'm a huge fan. I have MCT oils every single day. I highly, highly recommend you pop over and check 'em out. You get 10% off, as well. And my favorite is the almond milk latte, my wife loves the vanilla. Do yourself a favor, get on the MCT oils, and you could add them to your coffee, you can add them to smoothies, you can add them to your favorite tea, and just upgrade the nutrition, alright? Onnit.com/model, it's O-N-N-I-T.com/model, and now let's get to the Apple Podcast review of the week.

iTunes Review:

Another five-star review, titled "Joy", by LanaLovesJesus. "Dear Sean, my name is Lana, and I'm writing to say that your podcast is a huge part of why I feel so much joy in my daily life. I always share about your podcast with people, wherever I go. I'm a better person because of it. There needs to be more people like you in the world. Thankfully, you are here doing your part, impacting people's lives. Please, continue to share more amazing content. I am so blessed to have come across your podcast. God bless. Your biggest fan, Lana."

Shawn Stevenson:

Lana, thank you so much for sharing that review over on Apple Podcast, that just really filled me up and put a big smile on my face. I really, really appreciate that. And listen, if you've yet to do so, please pop over to Apple Podcast and leave a review for the show, and just whatever platform you're listening on, leave a review. If you're watching on YouTube with us hanging out in the studio, make sure to leave a comment, and let me know what you thought about this episode and our special guest. And on that note, let's get to our special guest and our topic of the day.

Our guest today is Dr. Mark Hyman, who's a practicing family physician and an internationally recognized leader, speaker, educator, and advocate in the field of Functional Medicine. He's the founder and director of the UltraWellness Center, the Head of Strategy and Innovation of the Cleveland Clinic Center for Functional Medicine, a 12-time New York Times best-selling author, and Board President for Clinical Affairs for the Institute for Functional Medicine. He's the host of one of the leading health podcasts, The Doctor's Farmacy, spelled with an F, "Farmacy." Dr. Mark Hyman is a regular medical contributor to several television shows and networks, including CBS This Morning, Today Show, Good Morning America, The View, and CNN. He's also an advisor and guest co-host on The Dr. Oz Show. And he's back here on the Model Health Show to talk about his new project, which I think you're absolutely going to love. So let's jump into this conversation with the amazing Dr. Mark Hyman.

So why this book now? Why Food Fix? Why talk about social injustice issues around food, the food system? Why now?

Dr. Mark Hyman: Why now? Because people need to understand that our food system is the biggest driver of most of the problems on the planet, that is driving challenges for most of the things that matter most to us: Our health, our economic, ability to thrive, the climate change that's happening, environmental destruction, poverty, violence, depression, poor academic performance, national security. They're all connected by food, and no one has told the story. Not only do people not understand that it's all one problem, but they don't understand that there's elegant, simple solutions that could fix all of it.

So, while it's kind of depressing to think about it, it's also extremely hopeful, because we have the power to change this, by leveraging policy change, grassroots movements, business innovations, citizen action, all of it is so critical for our future. It's an existential threat, and when you lay it all out and tell the story as one story, it all makes sense. So, we think of things as separate, right? We think our economy is one thing, health is another thing, climate is another thing, social justice is another thing, kids academic performance is another thing. The thing that ties them all together, and obviously this isn't the only reason for the problems, but is the major reason, is our food system.

Shawn Stevenson: Yeah. We tend to compartmentalize things, period. Even when it comes to our health and our bodies. We got somebody for this thing, got somebody for that thing, we separate. And...

Dr. Mark Hyman: Yeah, yeah. It's functional medicine for everything.

Shawn Stevenson: Right, exactly.

Dr. Mark Hyman: How to connect the system's view. It's a system's view.

Shawn Stevenson: Yeah. I think one of the most kind of eye-opening things about the book, and about what you're putting out for everybody, is the fact that we know now, today, that food is the number one cause of death...

Dr. Mark Hyman: Yeah.

Shawn Stevenson: In our world today. It's crazy.

Dr. Mark Hyman: Yeah. It is crazy. It happens so fast. In 1960, 5% of our population was obese. Now, in most states, it's 40%. That's staggering, that's an eight-fold change.

Shawn Stevenson: That's obese, not a little overweight.

Dr. Mark Hyman: Yeah, that's obese, that's not just a little overweight. And over the last 40 years it's happened, and we've seen staggering rates of disease, obesity, diabetes and all the related complications. And people just had it coming out of nowhere, and we're not really equipped to deal with it. So, the reason this book is so important, it's sort of it says, "Wait a minute, we need to catch up. We need to stop, take a look around, see the big problems we're facing, and come up with real models to solve it." Eleven million people die every year from eating bad food, I think that's an underestimate, they're not eating enough good food, right?

Shawn Stevenson: It's a... It's true epidemic.

Dr. Mark Hyman: Six out of ten Americans are sick with a chronic illness. One out of two have pre-diabetes or type 2 diabetes, 75% are overweight. This is all caused by food. Food is the biggest cause, it's also the biggest cure for our problems.

Shawn Stevenson: Yeah, yeah. And this is a global epidemic.

Dr. Mark Hyman: Global.

Shawn Stevenson: Can you talk about that, too?

Dr. Mark Hyman: 80% of the world's diabetics are in the developing world. That's just crazy. And they're suffering from malnutrition and obesity, and all the problems of this double burden of obesity and malnutrition.

Shawn Stevenson: Yeah. Let's talk about that specifically, because that's really fascinating that we live at a time where there are so many people who are hungry, they're going to bed hungry, but then we have more people than ever who are overweight, at the same time.

Dr. Mark Hyman: Yeah, we are like over 2, probably 3... 2.3 billion people who go to bed overweight, and about 800 million, which is a lot, who go to bed hungry. And yet, we have more than enough calories to feed 10 billion people on the planet,

even today, even though we have 7 billion, because we throw out 40% our food.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: We waste it. And the right food isn't getting to the right people and the right places, and too much is getting to the people who don't need it. And you're getting this sort of incredible, uneven problem, where the amount of calories you produce is probably an extra 300 calories for every man, woman and child on the planet a day, than they need. But yet, there's still these disparities, and there's a lot of reasons for it. But we have to solve this problem, because never before...

I remember seeing a picture of Woodstock, recently. And looked around the entire picture, thousands of people, there wasn't one person that was overweight. I saw the Aretha Franklin movie "Amazing Grace" and looked at this African-American church, and it was in Oakland, 1970. There wasn't one person who was overweight. And today, 80% of African-American women are overweight, and the diabetes rates are twice that of Whites. Their amputation rates are four times... Sorry, their kidney failure is four times that of Whites, and their amputation rates are three and a half times. So, these enormous health disparities are affecting these populations, and we just didn't see this a generation ago. And it's like a tsunami that came so fast and everybody was asleep, and now it's like, "Whoa, wait a minute." And people still haven't woken up to it.

Shawn Stevenson: Yeah. And I want to talk more about the disparity, in a moment, but I don't want to go past... You mentioned food waste. Can you talk more about that, because it's really eye-opening, too.

Dr. Mark Hyman: Yeah, and if you think about it, nobody's for food waste, right? People are against different things, whether we should be using more GMO or not, but nobody's for food waste. And we waste 40% of the food that we grow, and it would be... We would need the entire land mass of China to grow that food every year. It's \$2 trillion of food waste, about \$1,800 a person in America, for every person in America, we waste. And it's about a pound a day per person, and that... What happens with that waste? First of all, all the inputs that go into it, growing it, the seeds, the energy, the water, the labor, the processing, distributing, marketing, selling... All that is wasted, refrigeration, everything. And on top of that, when we throw it out, it goes into landfills. Now, people



don't realize this, but even if you're a vegan and you're throwing out your scraps and your leftovers, that's going to a landfill, and that's creating a massive contribution to climate change. If food waste were a country, it would be the third largest emitter of greenhouse gases, after the US and China.

Shawn Stevenson: Unbelievable.

Dr. Mark Hyman: It's like... A massive problem. And it's really... It basically rots and releases methane, which is 25 times more potent a greenhouse gas than carbon dioxide. So, we must solve this food waste problem. And the thing is, we all can do something about it, you know?

Shawn Stevenson: Yeah.

Dr. Mark Hyman: In San Francisco, when Gavin Newsom was the mayor, he put in a mandatory composting law. So it's mandatory now, you can't throw out your food waste, it has to go into compost buckets. Just like there's recycling, there's trash, and there's compost.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: And in the airport, there's compost buckets, and it's fantastic. And the same thing they did in the Massachusetts, they eliminated any ability of a company to throw out their garbage, if their food waste was more than a ton a week. So, places like Whole Foods, and grocery stores, and food service companies can't just throw it all out. So, they're forced to do something with it, and there's been a great innovation around... This is what's so exciting to me about America, you got great innovation. So, dairy farmers were not making much money. They realized that they can get this food waste, which they get for free, basically, they build these anaerobic digesters, where they put in the food waste and some manure, like the dairy poop, which is a big contributor again, greenhouse gases, in this big digester that actually produces electricity for 1,500 homes...

Shawn Stevenson: Come on...

Dr. Mark Hyman: And makes him an extra \$100,000 a year. And those farmers are struggling, making less than 1,800, minus \$1,800 dollars a year, right? So, it's a win-win-win-win. And they're doing this in Europe, there's 17,000 of these anaerobic digesters in Europe. We don't do that, but we can be producing electricity,

dealing with food waste, climate change, manure, it's a sort of a win-win. And we need to do that in an individual basis, with compost... Even if you live in an apartment, you can have a little compost unit, that you can actually buy on Amazon for a few bucks, and actually throw your scraps in there, and it turns into soil. You can give it away to somebody who's got a garden, you can... Local compost facilities. And it's just a powerful simple thing that we can do to end food waste, but it's one of the biggest problem we have. And then thankfully, the EPA, the FDA and the USDA have banded together under the Trump administration, one of the few things he's done that's really awesome, and created an initiative around food waste. Because again, whether you're a Republican or a Democrat, nobody's for throwing out more food, and creating all these problems.

Shawn Stevenson: Yeah. It's so important. And I love that we give these very actionable items for everybody, throughout the book.

Dr. Mark Hyman: Yeah.

Shawn Stevenson: So, composting. This is something that I didn't even really think about. I see it out different places...

Dr. Mark Hyman: Yeah.

Shawn Stevenson: And also, it's addressing one of the other big issues to talk about, is our soil.

Dr. Mark Hyman: Yes. Oh, yeah.

Shawn Stevenson: And our deficit of soil. Talk about that.

Dr. Mark Hyman: Okay, so most people think, "Oh, you know... How do we grow our food, where do we get it from, so it doesn't matter, right?" But it turns out that how we grow our food determines one, the quality of the food we eat, the nutrients in it, whether it's full of chemicals, pesticides, herbicides, glyphosates and fertilizer stuff. But also the soil is the biggest carbon sink on the planet. It literally can hold three times the amount of carbon that's been released into the environment, at over a trillion tons of carbon. And the truth is, the way we grow food... Industrial, monocrops, commodity, soy, wheat, corn... Has depleted our soil through over-tilling, soil erosion, intensive chemical use, which destroys the organic matter, the life of the soil, and turn it into dirt, which is lifeless. And the



soil that we've lost is one-third of all our topsoil, in the last 150 years. And about...

Shawn Stevenson: Something that took millions of years to make.

Dr. Mark Hyman: Million... Billions. I don't know. Million, yeah.

Shawn Stevenson: Yeah, yeah.

Dr. Mark Hyman: I mean, just a natural process, it takes about, I think 1,000 years to create like three centimeters of topsoil, alright? So, it's like a slow process. With animals, we can actually do it much faster. But when you think about 30%-40% of all greenhouse gases up in the environment that are causing climate change are the result of damage to our soils, that's staggering. We think it's fossil fuels, we think it's cars and planes. No, it's dirt. And we actually know that we can solve this problem by fixing soil. Soil is the biggest carbon sink on the planet, and we can use this incredible carbon capture technology, that works better than any technology currently invented, that's available everywhere in the world, it's free.

It drives huge amounts of carbon capture, more than all the rain forests on the planet, and all the trees on the planet, and it's called photosynthesis. And essentially, it's just ancient technology, where plants breathe carbon dioxide, they release oxygen in the atmosphere, which is what we breathe, but they actually... In this beautiful cycle, it's like a beautiful symbiotic cycle, they breathe in carbon dioxide. It goes into the plants, into the roots, into the soil. It puts all this organic matter in the soil, it feeds the fungi, it feeds the bacteria, creates this incredibly rich nutrient-dense soil, allows the plants to extract their nutrients from the soil.

Because if you have dead soil and you throw out fertilizer, it can't extract the nutrients. Even your best organic broccoli, if it's not grown in rich organic soil, is actually got 50% less nutrients than it did 50 years ago. So, you could be eating whole foods, plant-based foods, they're not full of zinc, and selenium, and iron, and magnesium, and all the nutrients that come from the soil, because the microbiology of the soil is what helps to extract those nutrients, so the plants can consume them, then we can eat them. But if there's no organic matter, we can't do that. And the other thing is when you do that, you can literally draw down enough carbon to save us from climate change. The UN estimated that if we just spent \$300 billion over the next few years, which is about the 60-day



spend on military spending, globally, just two months of military spending, we could slow down climate change and give us 20 more years to figure it out, because it draws down that much carbon. If we took just 2 million of the 5 million degraded hectares around the world and turn it into regenerative agriculture. Which I can explain more, but regenerative agriculture essentially is a way of building soil.

Shawn Stevenson: Yeah. Soil is the solution.

Dr. Mark Hyman: It is. Soil, not oil. I mean, it's unbelievable. And it means we need to use less chemicals, or none. It actually makes its own fertilizer. It holds water, right? So we're seeing all these droughts, and floods, and flooded farmlands, and why is that? Because the soil is so crappy it can't hold water. But if you have organic matter in the soil, it can hold 27,000 gallons per acre, for every 1% organic matter, which means that if you built up a lot of organic matter, you can literally prevent damage from floods, and droughts, and all these problems that we're seeing all over the world that are actually threatening our food supply.

Shawn Stevenson: Yeah. I want to talk more about that, because I think that there was two really important words, there's a difference between dirt and soil.

Dr. Mark Hyman: Soil, yes.

Shawn Stevenson: The soil is that complex entity that you just described, but the question is how did we get here? How did we lose so much of the soil? And one of things you highlight... I've talked about this a couple of times, but the monocropping... Just, there's been such a loss of our diversity of food.

Dr. Mark Hyman: Yes. Yeah. Yeah. So what's happened is that we had good intentions. We needed to grow more food, feed hungry people, so we got really good at industrial production of starchy calories: Wheat, corn, soy, and so forth. And that's industrial monocrop and chemical intensive agriculture. So, we have big tractors. We just didn't know the consequences of that. When we started, it was all based on good intentions, and now it's actually killing us. And the monocrop, basically, the way these farms work is the methods they used, the tilling, which turns over the soil, causes soil erosion, disrupts the organic matter in the soil, disrupts all the complex life in the soil, kills it, essentially, is a huge contributor.

Not using cover crops, so leaving ground bare and fallow, also cause more soil

erosion, and doesn't allow nutrients to be put back in the soil. Crop rotations are important, to actually feed the soil different things, with different plants. For example, certain plants, like the nitrogen fixing plants, like the legumes and so forth, they'll put nitrogen back in the soil, so you don't need nitrogen fertilizer, and other plants put other nutrients in the soil. And you use crop rotations, cover crops, no tilling methods, and then animals. Now, whether you're vegan or eat meat, it doesn't matter, you absolutely need animals to restore soil. How we got 50 feet of topsoil in America, was we had literally tens of millions of ruminants: Buffalo, elk, antelope, deer, grazing around, and pooping, and peeing, and digging up, and they built up 50 feet of topsoil. They weren't causing climate change. There were way more ruminants then than there are factory farm cows now. It's the way we're doing it, right? So, we're growing all this food for these animals, we're destroying the soil, and we're ending up with incredibly lifeless soil. And when you have lifeless soil, you need way more inputs.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: So, we've killed the soil so much that we need... The fertilizers are two-thirds as effective, and we have been using seven times more fertilizer to get the same results, because it's like beating... Trying to get blood out of a stone. And dirt doesn't hold water, it doesn't provide a rich microbial life that actually helps the plants become more nutritious. It doesn't hold carbon, which means it contributes to climate change. So, while damage to the soil is one of the biggest contributors to climate change, it also can suck out the carbon from the environment, better than anything else. And there's so much degraded land, 5 million hectares of degraded land around the world, that we can convert into regenerative lands. Lands that can't be used to grow vegetables. Even if you're a vegan, you can't grow plants on certain land. And the animals upcycle the nutrients and produce incredibly nutrient-dense food, and help restore climate, and fix the soil.

And now, there's a great example of this. This is a guy named Gabe Brown, from North Dakota, was a farmer whose farm was destroyed by hail and bad weather, and he was going to go bankrupt, and he started reading about these principles, and say he was going to try it. And since he's tried it on his 5,000 acres in North Dakota, he's created a complex ecosystem on his farm, not a monocrop, single plant, or one or two plants, like corn and soy. He says he's built 29 inches of soil, he uses no inputs, he actually makes his own fertilizer, he produces better



quality food, he's more resilient to climate stress and weather, floods and droughts and so forth, 'cause the soil is so rich it can hold so much water. And he says he makes 20 times the profit of his neighbor...

Shawn Stevenson: Unbelievable.

Dr. Mark Hyman: Which is staggering, so it's good for him, good for plant. And there's businesses that are fearing this out. You know, it's not a hippie fad, and it can be scaled. It's estimated that we can literally produce twice as many cattle that way, as we can do factory farms, right now.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: And there's private equity companies, like Farmland LP, which essentially buys up conventional farms, converts them to regenerative farms. And takes them from single-digit profits to double digit profits. Their first fund had a 67% return. I'd like to invest in that.

Shawn Stevenson: Yeah, that's nerve wracking.

Dr. Mark Hyman: That's a crazy amount of return, and there's something called ecosystem services. So he was a really good using up natural capital, natural resources. And we use about \$125 trillion a year of natural resources, from the earth. We basically steal it. And we don't give it back. And we destroy the soil, we destroy the water, we take down the trees, all of that stuff. The way of farming with the regenerative farming, which will fix the quality of the food, the obesity, the chronic disease, the economic issue, the climate issues, the environmental biodiversity loss, all of that gets fixed by that, it actually adds 21... In this one little small bunch of farms, that added \$21 million of ecosystem benefit or services to the environment, whereas the conventional farms cost \$8 million. And there are now countries like who's the way of farming pick farmers to put carbon in the soil, to conserve water, to actually increase biodiversity. I think that's what's going to have to happen in this country, we're going to have to incentivize farmers to do the right thing.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: So it makes it more profitable, and everybody wins.

Shawn Stevenson: Yeah, I love that. And you talk about... Because for business sake, it's going to look at what's the bottom line? You know, moving profits?

Dr. Mark Hyman: Yeah, is it economic-ish?

Shawn Stevenson: And you pointed out so many times in the book in how people can make money... But one of the things that's really important, that I want everybody to really imbibe, is this biodiversity.

Dr. Mark Hyman: Yeah.

Shawn Stevenson: Because we go to a grocery store, and it looks like there's all these different foods, but it's really...

Dr. Mark Hyman: Rather the same.

Shawn Stevenson: Right now, like 90% of this stuff on store shelves is made from the same 12 foods.

Dr. Mark Hyman: Yes, exactly.

Shawn Stevenson: So we get like, the same 12 plants and five animal species, whereas...

Dr. Mark Hyman: Yeah.

Shawn Stevenson: I think we've lost so much, over the last 100 years, of biodiversity.

Dr. Mark Hyman: And we used to have 800 species of plants. At the turn of the century, there were hundreds and hundreds of apple varieties, complex different grains, many, many different complex livestock heirloom breeds, right? Now, we've lost 90% of our edible plant species, half of all our livestock species, and 75% of our pollinators, like butterflies and bees, which we can't grow food if we don't have that. Einstein said, "If we lose our bees, we have four years left to live," which is pretty scary. And why is that happening? Well, a lot of reasons, because of the consolidation of seed production, with seed monopoly companies, like Bayer-Monsanto, ChemChina, Syngenta and BASF. But also, because we are destroying the biodiversity through how we grow food. The chemical intensive agriculture destroys the soil microbiology, it actually leads to loss of pollinators, 'cause pesticides aren't selective, they all kill insects of all kinds. And we've hybridized

animals, so that it is really productive breeds, like cows, for example.

I mean, look, if you have an heirloom, grass-finished cow, we generally raise cow, which is how they all were, like this is how it used to be, right? It's actually got a different form of nutrients in it, that are much better for you, like CLA, which is a great anti-inflammatory, anti-cancer, metabolism boosting fat, it has more antioxidants, more minerals, more nutrients, less bad fats. But also, on the dairy, for example, we used to have A2 casein cows, which were the heirloom cows. You travel around the world, there're always funny looking cows. We have the same looking cow, every cow looks the same here. They're all like white and black Holstein cows that produce the same kind of milk. But it's inflammatory, it's been hybridized in a way that creates a lot of problems for people.

And so, we aren't eating things in a way that are the best quality. Things have been bred for stability, transport, not for taste, not for nutrient density. You know, my friend Dan Barber is an incredible chef, and he was like, "Why can't we breed plants for flavor?" 'Cause nobody's bred for yield, they're bred for pest resistance, they're bred for shipping, they're bred... But nobody's like, "How about for nutrients?" When there's flavor, that's where the nutrients are.

Shawn Stevenson: Right, it's the indicator of nutrients.

Dr. Mark Hyman: It's the indicator, right? The phytochemicals, and all. And so, you create like, honeynut squash, for example, it just a sort of soggy, mostly water, butternut squash, it's incredibly flavorful rich thing. And so we actually can start to bring back some of these plants.

Shawn Stevenson: Hmm. I love it, I love it.

Dr. Mark Hyman: And there's a whole... There are seed vaults, we can't resurrect these things that are more location and climate specific. And a friend of mine discovered by accident, he wanted to get some new kind of crops growing, he was working with a farmer, and the USDA sent him by accident this packet of seeds. And he's like, "What are these seeds?" It's like 42136, whatever, whatever, and he was like, "Oh yeah, these are the Himalayan buckwheat." They are incredibly strong plants, but they're among the most nutrient dense food on the planet. They're very low in starch, high in protein, full of phytochemicals, vitamins and minerals. They grow in incredibly tough conditions. These are the kinds of things we should be eating.



Shawn Stevenson: Yeah, and that diversity in the soil is also indicator number one, like you mentioned, of the nutrients that we get...

Dr. Mark Hyman: Yeah.

Shawn Stevenson: But I think it's a good parallel to the microbiome diversity for ourselves that were not getting.

Dr. Mark Hyman: Yeah. In fact, there's amazing research on how our own microbiome and the microbiome of the soil are connected and dependent on each other, right? So, people around this book how to eat dirt, for example, it's like... Yeah, I think we used to have much more intimate contact with our natural environment living outside, and having dirty fingers when we ate. There wasn't a PURELL, you know, everywhere.

Shawn Stevenson: Right, walking out of any door. Yeah, that's right. And I think it's so important, and it good for our immune system, and so there's so much incredible potential for getting a better health for ourselves through taking care of the soil. It's all one system. In fact, there's a great book I read when I was like 19, called The Soil and Health, written by Sir Albert Howard, who was the father of organic agriculture, in 1947. And he says the whole problem of health and plant, animal, soil and humans is one great subject, it's all one problem, right?

My question always goes to, "How did this happen?" Like, "Why is this allowed?" We know that many pesticides, insecticides, these are estrogenic, neurogenic. These are things that are proven to have problems once we consume them...

Dr. Mark Hyman: Yeah, for sure.

Shawn Stevenson: And also missing on the diversity in our foods, the processed foods that we have. Why is it that...

Dr. Mark Hyman: How did this happen?

Shawn Stevenson: That our protection, or the FDA... Why is it that the FDA has allowed this to happen?

Dr. Mark Hyman: Well, like I said, a lot of these were started out as good intentions, and had great



effects. They reduced hunger, they reduced starvation, they provided a lot of calorie-dense starchy foods, but produced them in a way that's had all these bad consequences. And what happened then is these companies got so big. There used to be like 100 seed companies, now there's four that control 60% of our seeds.

Shawn Stevenson: Problem.

Dr. Mark Hyman: There used to be like 100 food companies, now there's like nine, that own all the other ones. And there used to be lots of fertilizer companies, now there's like half a dozen, that control all the 400 billion pounds of fertilizer made every year. So, there's a big consolidation, and they have enormous power. It's a \$15 trillion industry, it's the number one business sector in the world. It's about 17% of our global economy, and it's controlled by a few dozen CEOs, that are committed to protecting their shareholder value, and selling more stuff. The way Coca-Cola makes more money is selling more Coke. Maybe they're selling more water and trying to diversify their products, and all that's great, but it's a problem. And so, there's an enormous amount of lobbying and influence on... And the way the food company controls the narrative is through multiple strategies, that I outline in the book.

One, they corrupt science. So they fund 12 times as much science as funded by the government. And it's like, "Gatorade, oh, it's good for you," and it's funded by Pepsi, and "Coca-Cola doesn't cause obesity," funded by Coca-Cola, "Sugar is not a problem," funded by the coalition of big food companies. It co-opts scientists in different ways, by funding their professional associations. The American Heart Association, The American Diabetes Association, Academy of Nutrition Dietetics, all are funded, in part, by the food industry and by the AG industry, and so they're not actually completely independent, and they shouldn't be making guidelines and recommendations.

And then, you have front groups that they create to confuse the public, like The American Council on Science and Health, which essentially says that GMO is fine, that pesticides are not harmful, that smoking is okay, and high fructose corn syrup is good for you. It's kind of almost ridiculous, but they present themselves as this independent group, and when you look at who's funding them, it's all big food. So you've all these front groups. And then they call up social groups, like the NAACP and Hispanic Federation, are funded in part by the food industry, which is why those groups who are the most targeted and affected by the food



industry, and the soda, and processed food, are the ones who are opposing soda taxes, and opposing food reforms, because of how they're funded.

Shawn Stevenson: Yeah.

Dr. Mark Hyman: I spoke once, it was with Bernice King, Martin Luther King's daughter, in Atlanta, and I wanted to present this movie, Fed Up, at the King Center, which is all about how sugar and food was causing all this obesity in kids and stuff. And she was all into it. You know, she's, "Non-violence means non-violence to ourselves." And, a few days later, I got a call, "We can't show the film." I'm like, "Why?" And she's, "Well, because Coca-Cola funds the King Center in Atlanta." They gave \$1 million during the Super Bowl to create free admission to the social justice, human rights, civil rights museum in Atlanta. It's like... They know what they're doing.

Shawn Stevenson: And.

Dr. Mark Hyman: Then on top of that, there's 187 lobbyists for every member of Congress. So they control science, they control public health groups, they control social groups, they fund research, and they control politics. So, 187 lobbyists from every member of Congress. Just on the anti-GMO labeling law, they fought that, and it was \$192 million dollars in one year that these companies spent to oppose that one piece of legislation. They spent \$500 million on the Farm Bill, 600 lobby groups. They have so much power. And I remember sitting on a boat with a senator this summer, in a sailboat, and we had two hours just to chat. And you know, I started laying all this out for him, and he was like, his jaw was open. He just didn't understand this because he doesn't get educated by people like me, he gets educated by the food industry. It's like pharma companies, they educate doctors on you know I call it continuing pharmaceutical education center of medical education. So this is why we have this problem.

And then we have policies that are so contradictory. We have food stamps, where we're basically providing 75% of the food stamps, which is a lot of money, about \$75 billion a year, is for junk food. And 10% of that is for soda, about \$7 billion a year, about 30 billion servings to the poor every year of soda. We have dietary guidelines that are corrupted because now the Trump Administration says we can't look at any research on ultra-processed foods. We can't actually look at research before 2000, we can't look at research from independent scientists, only the USDA. They put all these crazy restrictions on what you can

look at, which waters down the guidelines. We have a school lunch program. Obama tried to improve school lunches, and he did through the Healthy Hunger Free Kids Act, but then Trump has just rolled it all back and now kids can have... Pizza is a vegetable, french fries are vegetable, ketchup is a vegetable. It's terrible.

Shawn Stevenson: Yeah. And I want to talk about that specifically, and how our culture, our food culture, really starts, and our connection with food, in school, and how the food system is playing out for our kids. And we're going to do that right after this quick break, so sit tight. We'll be right back.

There's a huge wave taking place right now with folks stepping up to try to find how to get a mental edge. There's never been more competition, there's never been more people vying for attention, and looking for creativity in performance, and finding ways to really stand out. And so priming and optimizing brain health is truly the wave of the future right now. And for that, folks are really tuning in to this category of nootropics. Now, nootropics are a category of supplements, drugs, other substances, that can improve cognitive function, be it memory, executive function, motivation, things like that. But we want to keep in mind that your brain is really operating on a system that has literally millions of years of evolution behind it.

So throwing in a new smart drug that was created last week might not be a good idea. So we want to lean into what are some of the things that have historical use that are also clinically proven to be effective for optimizing and improving the function of our brain. We're talking about mental performance. And so for that, I want you to know about a study that was published in evidence-based complementary in alternative medicine. They found that this little secret, listen in, raw honey possesses nootropic effects, such as memory enhancing attributes as well as neuropharmacological activities such as antidepressant activities and anxiolytic effects, so helping to reduce anxiety. I didn't know honey could do that. All right, but listen to this, honey polyphenols are also directly involved in activities that help to reduce neuroinflammation. So we're talking about reducing inflammation in the brain.

Now this is another thing that has a parallel wave taking place with inflammation and disorders of inflammation taking place throughout our body, systemic inflammation, but also of the brain specifically, which is connected to issues like dementia and Alzheimer's, but also just poor mental performance.



And so honey has that capability as well. But the key is raw honey. The study says raw honey. Now with this, we need to be careful. We need to be mindful. And for me, this is why I look to Beekeeper's Naturals to get my honey because they're dedicated to sustainable bee keeping, and also they have third party testing for over 70 pesticide residues that are found in common bee products like honey, bee pollen and the list goes on and on. Now some of those things that are in conventional honeys include arsenic, lead, mercury, E. Coli, not good, not good. So we want to bee-have and make sure that we get our honey.

They have incredible super food honey. They have a chill, bee chill honey also, that has hemp in the honey as well, but they have some incredible products that again, you're getting your medicine, you're getting your nootropic benefits without the harmful stuff on the backside. Now, if we're talking about nootropics, this one specifically you have to know about. There was a study published in advanced biomedical research that found that royal jelly, royal jelly has the potential to improve spatial learning, attention and memory. Royal jelly, that's what the queen bee eats. All right? It's exclusively the royal jelly. So this is taking honey and this is supercharging it. This is taking honey and doing a fast and furious with it. This is the Vin Diesel version. Now royal jelly also has anti-microbial, anti-tumor and anti-inflammatory properties as well. And royal jelly's been found to facilitate the differentiation of all types of brain cells, so helping your brain to create the cells that it needs.

And to top it off, researchers in Japan recently discovered that royal jelly has the power to stimulate neurogenesis in the hippocampus. So this is the memory center of your brain, literally creating new brain cells. I'm telling you, there are not many nootropics out there that can do something like that. And the B.LXR product that Beekeeper's Naturals has is phenomenal. It's called B.LXR, L-X-R, incredible. The basis is royal jelly, but they also have one of my all-time favorite things in there, bacopa. Now listen to this, a randomized double blind, placebo-controlled human trial, gold standard of studies published in 2016 found that after just six weeks of use, bacopa significantly improved speed of visual information processing, learning rate, memory consolidation, and even decreased anxiety in study participants. Try the B.LXR. If you want to boost your cognitive performance, this is something for you to kick off your day to get focused.

If you are about to go into a meeting or a performance or study or you just want to improve the function of your brain, reduce inflammation, get your brain



healthier. Try the B.LXR. Go to beekeepersnaturals.com/model, you get 15% off everything they carry. Again, I'm a huge fan of the super food honey. Love the bee pollen, B.LXR, game changer. That's Beekeeper's Naturals, so that's B-E-E-K-E-E-P-E-R-Snaturals.com/model for 15% off and now back to the show.

All right, we are back and we're talking with multi New York Times bestselling author, Dr. Mark Hyman about his new book Food Fix. I got an advanced copy right here. Need to pick yours up ASAP. One of the most important books of our lifetime. And before the break...

Dr. Mark Hyman: Thank you for that.

Shawn Stevenson: You're welcome.

Dr. Mark Hyman: It's the most important thing I've ever written, but yeah.

Shawn Stevenson: Well, we're talking about a subject matter that matters a lot to me when we're talking about our kids and how the food system is really preying on kids and how they're... One of the things that you highlight is how they're getting into the food system in itself, and I just want to share this from your book. You noted that about 80% of our schools have contracts with soda companies?

Dr. Mark Hyman: Yeah.

Shawn Stevenson: What?

Dr. Mark Hyman: And 50% have brand-name junk food, fast food in their cafeteria. So it's McDonald's Monday and Taco Bell Tuesday and Wendy's Wednesday and it's like, it's bad. And these kids are struggling in this country. We see 40% of kids overweight. We see one in 10 kids with ADD. We see behavioral issues. The amount of medications that are prescribed to children today is just frightening. And when I was growing up, I'm 60 years old, there was that one troubled kid in the class, there was that one girl who was a little overweight and that was it. And now it's the norm.

Shawn Stevenson: Uniform, yeah.

Dr. Mark Hyman: And what's happened is the food has changed so much that it's affecting kids' cognitive development and their performance. We know that kids who are in low socioeconomic groups with poor diets, their brains are 10% smaller. Their



IQs are 7 points lower, which is a lot. And they're not functioning well in school. We see academic achievement gaps. There's something called the achievement gap, which is that kids who have struggles with health or diet or food, they do poorly. They earn less money when they grow up. They're less likely to go to college. I just went to one of them really underserved areas in Cleveland the other day and met with the school superintendent and went through the school. It was a big school, and there was mostly African American, Hispanic kids.

And 1%, he told me, 1% of these kids are eligible to go to college when they graduate high school, 40% absenteeism rate. The obesity rates, staggering. I walked down the hall there was a really overweight girl walking down the hall with... You know, double fisting it, one giant 32-ounce slushy, another 32-ounce soda. And, it was just the norm there. I went into the kitchen, and I pointed out to him, "Where can you cook food here? There's deep fryers, there's reheating ovens, microwaves. That's it. So, how do you actually have real food?" And what's great about what's happening in America today is there's innovation all around us.

There's mothers and activists and people who are changing the school system, there's groups like Conscious Kitchen that create templates for schools to transform their schools to make food that tastes good, designed by top chefs within the nutrition school guidelines, within the budget. So it doesn't have to be expensive, and kids will eat it. And I think that's what's really exciting that we don't have to have this. And when you change diets for kids, they do better in school, there's less behavioral issues, less violence, less aggression, less conflict, less likely to go to jail.

Shawn Stevenson: Yeah, and that's the thing we don't think about. We have this very strong approach of victim-blaming in our culture, which you know, instead of looking at the structure around things. How did this get created? And, you talk about this in the book very eloquently, and we talked before the show that I'm doing something, I'm working on a project, it's very big, along the same lines. And when you outlined this one particular study in the book, you noted that only about 5% of African-Americans are getting adequate nutrition. And it just like... I had to hold back the tears. I had to just sit there for a moment with that, and just realize that there's this structure, this concept that you're bringing to light, called...

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Dr. Mark Hyman: Structural violence.

Shawn Stevenson: Structural violence.

Dr. Mark Hyman: Yeah.

Shawn Stevenson: Structural violence. Talk about that.

Dr. Mark Hyman: So, Shawn, when I saw the earthquake happen in Haiti I had just finished reading this book called "Mountains Beyond Mountains" by a guy named Paul Farmer who was in Haiti for 30 years after medical school as a doctor. And everybody had given up on this country because it was so corrupt, there was so much poverty, and there was so much disease, and there was TB and AIDS were rampant in Haiti. And, all the public health groups, "It's too hard to deal with these people, they can't take these medications on time, on their schedule."

So he went down and he fixed it and he said, "It's not about these people having a medical problem. It's about the social, economic and political conditions that drive disease." He called that structural violence. So, what is the environment in which they live? Why are they so poor? How do we help them? So he basically created a model where he addressed this by creating community health workers, neighbors, who helped each other take the drugs, make sure they got their health stuff done.

And he was able to solve TB and AIDS in one of the worst places on the planet. It's the second poorest country in the world, and the worst in the western hemisphere, where people in most half of the country live on less than a dollar a day. He was able to deal with some of these structural issues, these social environment issues. We call these social determinants of health in this country. And your zip code is a more important determinant of your health than your genetic code.

In low socioeconomic areas, your life expectancy may be 20 years less or 30 years less. If you're a poor African-American living in a tough area, your health is at risk, your life expectancy is dramatically lower. It's like the developing world here in the United States, and your zip code is a bigger determinant of your health. And it's all the factors that drive that, whether you have access to food, what your education is, whether you can walk in the streets or not 'cause it's dangerous. All these things play a huge role, your lack of education about what's

healthy to eat or not.

Shawn Stevenson: Just to play the objective devil's advocate, when people see that... Because, if I'm just looking at it from an outside perspective, it's just like, "Oh, why don't you move? Or why don't you guys clean up your community?" And not understanding that, I grew up... So, a good example is, when I met my wife, I was living in Ferguson, Missouri. I'd go out my door of the apartment complex, there's a liquor store immediately right across the street. And then as I go down the street, half a block, there's another liquor store, there's a Chinese food restaurant, not the good kind, it's like the bulletproof glass kind.

Dr. Mark Hyman: Oh, yeah. Right.

Shawn Stevenson: And then there's Papa John's, Domino's, Dairy Queen, and then I go down one other block, Krispy Kreme, McDonald's, Burger King, another Chinese food place, another liquor store.

Dr. Mark Hyman: Not an accident, You look at the concentrations of these... Yeah.

Shawn Stevenson: But here's the thing. I didn't know that there was a difference. I just thought it was food. I didn't know that healthy food was a thing, it was a lack of exposure.

Dr. Mark Hyman: Yeah, I think people are often judgmental and they go, "Well, people just know what to do, they're not doing it. They don't really want to, they're lazy. Why don't they just get themselves together?" It's just not like that. I think people just don't know about the basics of nutrition, they're not taught in schools, they have no education, and the worst part about it is they're targeted, they're micro-targeted by the food industry.

Shawn Stevenson: How so?

Dr. Mark Hyman: When you look, for example, at the targeting of ads, they're targeted to African-Americans, they're targeted to Hispanics. They're advertising for, for example soda on the day the food stamps come out in these poor neighborhoods is much higher. They are undermined in what they're doing by the food industry, and the data is so clear that they put more of these junk food places and fast food places in poor neighborhoods. It's not an accident, it's actually by design. And they hire celebrities, Latino, African-American celebrities to promote all this junk. You think LeBron James drinks Sprite?



Shawn Stevenson: Right. At half-time, "Let me get that Sprite."

Dr. Mark Hyman: I don't think so. I don't think so. The targeting of ads they put Gatorade and they say, they actually don't drink it. They have the Gatorade bucket filled with another liquid. And I know this for a fact because I have friends who own sports teams and they tell me that's what they do. They have contracts with Pepsi, and they have to put those out there, so you can see it on TV, but it's actually not what's in the bucket. So, I think I think... We see African-American kids drink twice as much soda as white kids because they're targeted. And the advertising, they see far more advertising for this on their media channels.

Shawn Stevenson: Yeah, you noted in the book that black teens viewed 119% more junk food-related ads, mostly for soda and candy than white teens.

Dr. Mark Hyman: Mm-hmm. Yeah. I mean the health disparities are not an accident, and I think, again, they co-opt social groups like black and Hispanic groups and other groups, and they're so deliberate about it. And unfortunately, it's this perpetual cycle that happens. And then, it's tough for these families. I remember a girl in Cleveland I met, she was pointing the fork, Cuyahoga County Community Health College there. And they were studying food and cooking, and they wanted to pull themselves up. They were from really tough neighborhoods. Her relatives were all having amputations and diabetes. They were just really struggling. And Lily had to have her mother take two different buses to go for an hour each way to go get vegetables for the family, if she wanted to eat vegetables. Meanwhile, they had all the processed food they want, the Little Debbie's, the sodas, the drinks. They don't even have soda, it's colored water. It's neon green, neon blue, neon red sugary liquid that they buy in these plastic containers full of phthalates that are pennies for a drink, and it's killing them.

Shawn Stevenson: And being in this situation, even just growing up, having food stamps, and now the SNAP program, but we also had WIC as well.

Dr. Mark Hyman: Women, Infants, and Children.

Shawn Stevenson: Yep. And so we'd get the skim milk, and we'd get King Vitaman Cereal. Not like stuff we really wanted, but white bread... We'd get some of these kind of basics, but we were just continuing with the malnutrition. And that's one of the things that you highlight as well, because there are people who are... And most of my

family's obese or overweight, but yet they're also at the same time, malnourished. So how is that even possible?

Dr. Mark Hyman: Yeah, well, we have too many calories and too few nutrients in our food. I mean, Coca-Cola has a lot of calories but no nutrients. Broccoli has a lot of nutrients, but no calories, right? So, we are eating a nutrient-poor diet, and unfortunately, those abundance of nutrient-poor calories leads to malnutrition. When you look at obesity, these patients are the most nutrient deficient. They're low on vitamin D, they're low on magnesium, they're low in zinc and folate. They're low on so many nutrients that we depend on for every biochemical reaction in our body. People understand that you can be obese and malnourished. And then people want to eat more. There's a medical condition called pica, which is where kids will eat dirt if they're iron deficient. We look for nutrients, 'cause we're starving, and our bodies crave those things. So, we keep eating more and more food, trying to get more and more nutrients, but they're not there. So we just keep eating more food and get fatter and fatter and fatter.

Shawn Stevenson: And that shows up in different ways. I know people, my family that would eat chalk. I think during pregnancy another person was very obsessed with eating soap, during pregnancy. It's just like your body wants these nutrients, and we're not getting it through our food.

Dr. Mark Hyman: No.

Shawn Stevenson: And so, we'll do these strange behaviors. It's so weird.

Dr. Mark Hyman: And it has so much influence on their cognitive behavior, on their academic performance, on their mood. Depression, behavior, violence, all those things are caused by these nutrient deficiencies.

Shawn Stevenson: And you share several stories and really great studies in the book that are super eye opening. I've said eye opening like three times. But this is really important because if we think about how the oppression, it becomes this very difficult cycle to break. And we see nutrient deficiency, poor mental health, and increase in violent behavior. And you share some studies showing that just getting people better nourished, decreases their level of violence.

Dr. Mark Hyman: Absolutely. We know that your brain is dependent on the right fats, the right nutrients to work properly, to regulate your mood, your behavior, your energy,



attention. And the impact of it is so much bigger than we realize. There's a study, for example, called the SMILE study where they did a randomized trial looking at feeding people a whole foods healthy diet, compared to the traditional diet, and it helped cure their depression. We see in prison studies that feeding prisoners whole foods and better diet, compared to the control group... And these are controlled studies in a prison where they feed them, so they can track it all. It's not like just somebody's saying, "I ate this," and you can't prove it. They showed a 56% reduction in violent crime in the prisons. And if they added multivitamins, they had an 80% violent crime reduction. They've done this with kids in juvenile centers where they see dramatic reductions in aggressive behavior and oppositional behavior and violence and self-harming behaviors, 100% reduction in suicides, which is the biggest killer in youth right now just from changing their diet.

Shawn Stevenson: A hundred percent?

Dr. Mark Hyman: Yeah, in this one study, just from eating better food. And when you do that, it's so simple and it's so powerful. And people don't understand the connection between food and mood and food and behavior. We've such an inflammatory diet and our decisions and our choices aren't really very good. I just talked to my friend David Perlmutter, who came out with a book called "Brain Wash". He's a neurologist, and he talked about what happens in the brain where the adult in the room who's good at making executive decisions and seeing consequences and mitigating bad behavior... 'Cause we all have bad impulses, right? We're just being human. But it's like, "Okay, I'm not going to do that 'cause I'm going to get in trouble if I steal that." There's a part of the brain called the reptile brain, the limbic brain, the original fight or flight behaviors, survival mechanisms. There's communication between those two parts of the brain. So when something gets you activated, you go, "Wait a minute, I'm not going to react like that."

Shawn Stevenson: It's not worth it.

Dr. Mark Hyman: "I'm not going to say something stupid. I'm not going to punch this guy in the nose even though he pissed me off." This guy really pissed me off the other night, I was at a party, and he stole my friend's seat. And I could feel myself, I wanted to punch him. I was like, "Okay, I'm going to behave okay." But what we see now in America, there's so much conflict, so much divisiveness, whether it's Republican, Democrat, Christian, Muslim, whatever, And he said, the parts of the brain that communicate get interrupted by an inflammatory diet, which is what



we're talking about. So, the brain can't function right when it's not eating the right diet.

Shawn Stevenson: It seems like this should be Captain Obvious. It's very difficult to perspective take. It's very difficult to have compassion when you don't feel well. This is the thing. It's not that it's impossible, it's just harder. And getting us well-nourished is a big causative factor for change. And really quickly, and I just want to hit on some of these, because I'm going to talk about some of the solutions. You got solutions outline throughout the book...

Dr. Mark Hyman: Let's do it. So much, yeah. I mean, I do have...

Shawn Stevenson: What are some of the things we can do?

Dr. Mark Hyman: So, yeah. We have a big problem, for sure. But the first step of fixing the problem is to recognize it. The second step is realizing we have so many potential ways to fix this. And that's the beauty of this. If you fix the root causes, you literally can change everything. And there's things that we as individuals can do, as citizens, business innovations, like I was talking about those incinerators for aerobic digesters for making electricity from garbage. There's policy change that we desperately need, and that's going to be a little harder, but we need to do it. And so, I outline all these in my book. And on foodfixbook.com, there's a whole action guide where you can go and find all the things that you can do yourself. And just on a personal level, your diet matters, what you eat matters. And you don't have to become vegan, but you can think about, "How do I source from regenerative agriculture foods?" People, "It's expensive, it's elitist." Well, it can be, but it doesn't have to be. There's a... For example, you can buy direct from ranchers, like at Mariposa Ranch, where you can get eight bucks a pound, regeneratively-raised beef, which is cheaper for a four-ounce serving than a McDonald's hamburger, right, and you can do this at scale if you...

Maybe you can't afford the whole cow, so you buy... You go in with a bunch of friends in your neighborhood and you split it up and you chop it up, and you put in the freezer. Everybody can start a compost pile, which is something we don't think about, but food waste is a terrible problem and we don't have to throw out our food scraps. You get an in-home composter or you can get it if you're living in an apartment. If you're in the country or live out in the suburbs, you can have a little compost pile in your backyard. I've had one for 40 years. You just

throw the scraps in there and it just makes this incredible dirt. If you don't have a garden, you can give it to your community garden, you can give it to your local farmer. And its simple ways you can do things. You can change your diet, so you're actually eating foods that are more regeneratively-raised, that are more sustainable, that are good for you and good for the planet; I outline all that in the book, I call it the Pegan Diet. You can do stuff in your community. If you have somebody who's... You got kids, you can work in your schools to reform the school system, I talk about how to do that and what the resources are.

You can actually also vote with your vote and become more active in... Whether you actually want to become politically active or not, you can maybe give to somebody who is doing more work, like the Food Policy Action Network or Environmental Working Group, if you want to sort of help donate. So you can vote with your ballot. And then, there's a great group at Food Policy Action Group, where you can look at your congressmen and senators and see what are they voting on. Are they voting for a good policy or a bad policy when it comes to food and ag? And they get scored. And you can sort of make noise and people actually listen to that. So, there's a lot of ways we can do that. And of course, then we need business innovation. We need incentives that are... So for regenerative ag, we need incentives to get farmers to do that. We need policy change where we can reform food stamps and put nutrition back into food stamps. We need better school lunches. We need to change the way in which the FDA labels food so it's clear and you know what you're eating. We need maybe soda taxes to help. We need incentives for good food and dis-incentives for bad food.

All these are laid out in the book. We can create food as medicine prescriptions, for doctors to actually treat people with food as medicine. We can get Medicare to reimburse that. So, there's a lot of really exciting things that are on the table that I lay out in the book, and it's going to require a massive grassroots effort. I'm really excited about the book, but I'm also excited about this movement that we're building with real people who know how to get done in Washington and change policy. And so, we're going to be activating all kinds of coalitions and groups, academics, scientists, farmers, policy-makers, scientists, doctors; all of us together, working to solve these problems and I'm really excited about it. It's called the Food Fix Campaign and so stay tuned for that, we're going to be launching that in May. And it's, I think, the most important thing I've ever done because we actually have to solve this or we're screwed.



Shawn Stevenson: Absolutely. And of course, you can count me in as a big supporter, but there's also some other incentives for people to get started now. Everybody needs to get a copy of this book, but if you pre-order it right now, you also get access to some bonuses.

Dr. Mark Hyman: Yeah, yeah, for sure. So, you can go on foodfixbook.com. I've created a video called Five Steps to a Healthier Plan and a Healthier You, which is a great action plan for you. There's an incredible action guide so you don't have to be confused about what to do, what you can do as an individual, what you can do in your community, whether you wanna start a community garden or get your local municipality to start a composting initiative. And there's so much that we can all do, we have to jump in. And, there's also this great longevity course, I've created a longevity master class. 'Cause I'm 60, I wanna stay healthy a long time, so I gotta fight this fight. I need another, at least 30-40 years, so I can kinda push through and fight this fight 'cause it's not gonna be overnight. And I've collated all my learnings and expertise as a functional medicine doctor understanding what causes us to age, how to reverse it. And my biological age, I'm 60, but my biological age is 39.

Shawn Stevenson: Amazing, amazing, good.

Dr. Mark Hyman: So, I'm doing good. And I think I wanna share all those insights with people, so there's a lot of resources there that you can plug into at foodfix.com... Foodfixbook.com.

Shawn Stevenson: Perfect, foodfixbook.com. You're one of my favorite humans.

Dr. Mark Hyman: Thank you, Shawn. Thank you. Thank you.

Shawn Stevenson: I've learned a lot from you over the years. And I remember sitting at that apartment in Ferguson, Missouri, and I just really worked to turn my health around, and I remember finding you on YouTube. And it was a video where you dropped this nugget, and I was still in college at the time, and you said that, "Food isn't just food, it's information."

Dr. Mark Hyman: It's information. Boom!

Shawn Stevenson: Literally changed my mind, changed my outlook on life in that moment.

Dr. Mark Hyman: Yeah, that's crazy.

Shawn Stevenson: And I just want to thank you so much for continuing to innovate, continuing to focus on being the best you possible.

Dr. Mark Hyman: Thank you.

Shawn Stevenson: And I know what goes into creating a book like this, and I'm just excited to be a part of this with you.

Dr. Mark Hyman: I know. Thank you, yeah. That was a long time ago, that was 15 years ago I was doing video blogs, and I think they had dial-up, it was pretty bad. Fuzzy and...

Shawn Stevenson: This was about 18 years ago, maybe.

Dr. Mark Hyman: It's crazy. Yeah.

Shawn Stevenson: Yeah, amazing, amazing.

Dr. Mark Hyman: I've been on this fight a long time. But this is really the most important work I've ever done because it sort of puts together everything that is wrong with the world, connects the dots and gives us a road map out.

Shawn Stevenson: Yeah. Awesome. Foodfixbook.com. Awesome. Mark, thank you so much for hanging out with us.

Dr. Mark Hyman: Thanks, Shawn.

Shawn Stevenson: Everybody, thank you for hanging out with us today. I hope you got a lot of value out of this episode. I just want to share this with you because, again, for a lot of industry, it's about that triple bottom line. It's a win-win-win and looking at how can they actually make money or save money by doing some of these things? Why would a soda company be invested in selling less soda, right? How can we save money with insurance, right? This isn't a small thing. Businesses aren't going to make these moves unless they're pushed to through making money or saving money. And so he highlights in the book, and this was research recruited from Medicaid and Medicare patients, and split them into groups that either received nutritious healthy meals or did not receive nutritious meals. The study found something really astonishing. The patients who had nutritious



meals had fewer hospital visits, ultimately resulting in a 16% reduction in their healthcare cost, and that was after deducting meal expenses, so that's taking out the cost of the food. The average monthly medical cost for a patient in the nutrition group shrank to about \$843, much lower than the roughly, \$1413 in medical cost for each patient in the control group.

Saving money. Saving money, feeling better, preventing illness; this is where we need to point our attention as we move forward. This isn't a small thing. This is the biggest issue that we have at hand in our society today. And we think, again... Mark started off talking about these things seem separate; climate change, political unrest, but this is really all tied to a common entity, which is our food. And again, I'm really excited about this book, and this mission, and I've got some stuff coming to really mirror and support this as well, but I want you to make sure to pick up Food Fix right now at foodfixbook.com. Get those bonuses, get those five free videos and get more actionable items on what you can start to do right now. And listen, I appreciate you so much. This isn't a race issue, this isn't a political issue, this is a people issue, and all of us really working together to change our world for the better and kind of leaning back on our ancestors who were thinking generations ahead. What kind of world are we going to leave for our grandchildren and our great grandchildren? And we have the opportunity right now, with how we take action.

And I appreciate you for taking action in tuning in with us today. Make sure to share this out with the people you care about on social media. Tag me, tag Mark, let us know what you thought about the episode. We've got some epic power house stuff coming your way very soon so make sure to stay tuned. Take care, have an amazing day and I'll talk with you soon.

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