THE MODEL HEALTH SHOW

EPISODE 715

How to Fix Your "Bad" Genes & Why the Healthcare Industry Is Bankrupting Americans

With Guest Kashif Khan

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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 with me today. Have you ever thought about what you're seeing when you look in the mirror? Have you ever thought about what people are seeing when they see you? Where does all of the material actually come from? Well, your body is made from the food that you eat. Every cell of your skin, every cell of your hair, every cell of even the eyes that are looking at you is made from the food that you eat. And this goes deeper, of course, to your heart, to your blood vessels, your capillaries, your very blood is made from the food that you eat it's incredibly powerful to understand that, that when people see you, they see the food that you've eaten. And this really speaks to the power of choice and being able to choose what we're making our tissues out of.

But even that goes deeper, and that's what we're talking about today. Because if we take it a step further in this dictation and understanding what we're actually seeing, you're not seeing, when you look at your skin, you're not seeing the pepperoni that you might've eaten, you're not seeing the blueberries that you might've eaten. All of those things are getting transformed into other compounds. They're getting made into protein. So what people are seeing when they see you is a conglomeration of proteins and minerals. Those are really the largest makeup of what you're seeing when you look in the mirror. Now the question is what is actually producing these proteins? Yes, food is a substrate. Yes, food is an energy to do these processes, but the blueprint for making those proteins are your genes. Your genes offer the blueprint for making you, now collectively due to the Human Genome Project and subsequent projects that have been done looking at genes, we found that human share collectively somewhere in the ballpark of the same 20 to upwards of maybe 25,000 genes.

And you wouldn't think that that would offer up a lot of variety. But you know that we are very diverse in our appearances and our status of health, and our personalities and all of those things are influenced by our genes. But question is what creates so much diversity and what can our genes tell us about our potential? Are our genes causing our epidemics of chronic diseases? These are all things we're going to be diving into today. And I think that this is going to blow your mind. When you find out what's actually the distinction between our genes and this growing field of functional genomics, you're going to find out how much power you have to influence your outer expression, to influence your gene expression. And again, what we're seeing when we look in the mirror, our level of health, our experience of wellbeing, our mental health, all of these things, are in your control, far more than you've ever understood.

And that's why I'm so excited about this episode. Now, before we get to our special guest, I mentioned before that it's not just proteins that we're seeing in the mirror, but also minerals

play a huge part in the physical makeup of our bodies. And in particular, there's a category of minerals that are absolutely essential for defending our body from chronic diseases and also helping to improve the function of everything from our cardiovascular health to our brain health. A fascinating study that was published in the journal Neuron found that one of these particular minerals in this category of minerals called electrolytes called magnesium, which you've probably heard of, you know them, you love them. Magnesium was found to be able to restore critical brain plasticity and improve our cognitive function. Now, neuroplasticity is the ability of our brain to change and adapt. And we need this more than ever.

We need adaptable brains. We need adaptable humans so we can thrive in conditions that are often riddled with very complex challenges. Now, another double-blind placebo-controlled study published in the Journal of Alzheimer's Disease found that improving our magnesium levels could potentially reverse brain aging by over nine years. And this was done on test subjects in their elderly years. So, they were between the ages of 50 and 70. And so being able to literally have a younger brain. Now, another electrolyte sodium was found by researchers at McGill University to function as a "On off switch" for certain neurotransmitters in our brain that support our cognitive function. So, things like focus and memory. And also, it was found to protect the brain against numerous diseases. Electrolytes are critically important to our health overall, defending our bodies against chronic diseases, helping to improve performance, but also, it's a powerful influence over our genetic expression.

Now, we absolutely want to eat foods that are rich in electrolytes. And today we have access to some of the most incredible electrolytes that are based on hundreds of thousands of data points from real people to get the optimal ratios of electrolytes, the key electrolytes like sodium, like magnesium, like potassium in a bioavailable form and avoiding unnecessary added sugar, artificial colors, nothing nefarious. And I'm talking about the electrolytes from LMNT. Go to drinklmnt.com/model and you're going to get a free gift with every purchase of their phenomenal electrolytes. Now, they're all about ethical sourcing. They're all about integrity. And again, avoiding some of the common things that are found in electrolyte supplements that do the opposite of what we're looking for, like unnecessary sweeteners and artificial colors. And so LMNT is truly in a league of their own. And this is the electrolyte. I actually just had it before the show today. So, head over there and check them out. It's drinklmnt.com/model. And again, you get a free gift with every electrolyte purchase. Head over there, check them out. And now let's get to the Apple Podcasts review of the week.

ITUNES REVIEW: Another five-star review titled “Love The Show” by Thriving and Striving. “Love how you deliver your show with relevance and always backed up with scientific knowledge. I also love your humility and love for what you do. I always look forward to your new releases.”

SHAWN STEVENSON: Awesome. Thank you so much for leaving that review over on Apple Podcasts. Thank you for seeing me and acknowledging me that means so much. And listen, if you have to do so, pop over to Apple Podcasts, leave a review for the show. And wherever you're listening to the show, if you can rate and review, please do. Please share the love. It really does help to reach more people. And on that note, let's get to our special guest and topic of the day. Our guest today is a bestselling author, multi-time TED speaker and founder of the DNA company where personalized medicine is being pioneered through unique insights into the human genome. I'm talking about Kashif Khan. Kashif is one of the leading voices emerging in the health and wellness field, and he has such a vast array of knowledge and insights. And again, I think this is truly going to blow you away. Let's dive into this conversation with the one and only Kashif Khan. Kashif, thank you for coming to hang out with me. So good to see you.

KASHIF KHAN: Pleasure, man. Good to be here.

SHAWN STEVENSON: Let's kick things off, talking about the difference between genetics and genomics.

KASHIF KHAN: Yeah, So genetics, it's kind of the same parallel with here's medicine and here's functional medicine. Medicine is here's what your disease is called, and here's a pill you need to take. Functional medicine is, let's figure out why it happened. Root cause, right? So, genetics and what people believe it to be is you have a 80% chance of breast cancer or Alzheimer's, good luck. Versus is there only one reason why breast cancer and Alzheimer's happen? Or there are multiple pathways that lead to them. So, understanding the innate biology and then what are the epigenetic factors that you can't handle based on that sort of biology we're not all the same in that path to Alzheimer's or breast cancer. So, understanding the root as opposed to the condition itself.

SHAWN STEVENSON: Yeah. And you would think that this would be obvious at this point. And yet we're still, there's this lingering, false belief about how our genes are impacting our outcomes. And one of those is one of the most well-known breast cancer related genes. Can you talk about that one and some of the kind of false beliefs about it?

KASHIF KHAN: Perfect example. So BRCA, so even just hearing that word women get scared, right? So BRCA is this four-letter word, which doctors will say is an elevated risk of breast cancer and ovarian cancer. In fact, there was an article in CNN recently that said that if a woman has BRCA, and don't even explain what that means, you should cut your fallopian tubes out to prevent ovarian cancer, right? This was in CNN. So, what's actually going on BRCA doesn't cause cancer. It's a tumor suppressor. So, God forbid you get this disease, it's supposed to fix it. It also repairs damaged DNA, which is a root cause of aging. It sort of repairs cellular

structure. So, it keeps you young and healthy. If you have a version of the BRCA gene for which there's a variant or mutation and the instruction is broken, you don't do that job well.

So, you're not getting cancer, you just don't repair or recover. None of that still answer the question of why does the cancer happen, right? So why am I cutting out breasts and fallopian tubes when I don't even know what's causing it? Some women make a lot more estrogen than others. They're estrogen dominant. In your genes, the cascade of progesterone converts to testosterone converts to estrogen. Men and women do the same thing. Men do it every day. Women do it monthly. The dominance or how much of each you make is variable based on the genes that instruct each step. There's a gene that tells your body to take testosterone and convert it into estrogen CYP19A1, it's called. So, if you have a fast version, you make too much estrogen. Step one of three. Step two is before you have your monthly cycle, you convert it into a metabolite.

And there's three options there. 2-hydroxyestrogen, 4 and 16. Two is the good clean stuff you want. Four and 16 are potent toxins. They cause inflammation. Step three is we have clearance or detox pathways that get rid of this stuff. So, if I'm an estrogen dominant, estrogen toxic, and I don't detoxify it, I make this monthly inflammatory insult that I'm not dealing with. And then I add birth control pills, and then I add hormone disruption, and then I add my Teflon coated frying pan and PFAS chemicals like add today's lifestyle on top of that load, the epigenetics I'm causing the inflammation for which I do have that cellular damage. And guess what? This is why most breast cancer happens around the menopause age. 'Cause you no longer have a cycle, so you're not getting rid of this toxic threat. And your body says, I'm smart.

I don't want my organs to get damaged, so I'm going to go store this stuff in fat. And where do women have fat in their breasts? And all of a sudden, these glands and ducts that were not designed for that level of toxicity get damaged and they get cancerous. And after all of this is when BRCA is supposed to get to work. So, this old paradigm of BRCA causes cancer is no, BRCA helps you recover. But we can ask the question, why did it happen? And if I take a two, three, four, five-year-old girl and look at her genome, I can prevent it. Right? I can tell you, here's the path, here's the choices that'll get you here. Here's the choices that won't get you there. It's that simple.

SHAWN STEVENSON: Man. What really connected me with your work is you identifying which, which again, it should be obvious the impact that our environment is having on our health outcomes. And just even speaking about that, it reminded me of this study, and this was published in the peer review journal, comprehensive physiology. And it was looking at the lipophilic nature of newly invented environmental chemicals that leads to the bioaccumulation of them in our fat tissue, right? And so again, we are battling trying to lose fat, lose weight, and not understand like what's actually getting put into those tissues. Is there an underlying

intelligence that your body has, is trying to protect you in some form or fashion? Because we see weight loss, body fat and weight management as this very superficial kind of vanilla one track thing, right? Just calories in, calories out. We need to exercise more, eat less this whole thing. But there's an underlying intelligence that you are really helping to bring to the forefront related to our genes, our bodies have these particular, this design and these programs to help us to have good health outcomes. But now we're facing off against things that are very, very different from what we evolved with.

KASHIF KHAN: Yeah, that's exactly right on where the context today is so different than what we're wired for. So, these genes that we've inherited, our body doesn't know that we're walking around in 2023 in LA with the pollution and the traffic and the garbage food and et cetera, et cetera, right? It still thinks we're walking out of a cave to go kill an animal and pluck a plant out of the ground and eat it fresh. That's truly what we're wired for. So, we do have detox pathways, we do have anti-inflammatory pathways for that context and that level of exposure, not today's level. And yes, your body will then try and protect you in terms of this toxin is inflammatory, let's store it in fat. Then you go on a fat lost program, and you start releasing those toxins back into the bloodstream and your body hits this plateau.

Why am I stuck? I'm doing everything right. You hear this a lot. I did exactly what the podcast said or what YouTube video said, why am I stuck? Some people are more estrogen dominant, like we talked about earlier, which in itself causes them to store more fat, right? That one hormone will say fat retention is good for you and it causes them to do that. Now, when you're burning the fat, not only are you releasing toxins back into your bloodstream, your fat also stores estrogens. So, you're also releasing estrogens back into your bloodstream that cause your body to want to store fat. And this is why people get stuck. So, the personalization that becomes so easy when you read your human instruction manual, here's how my body actually metabolizes everything. You under that trial and error. One size fits all. I'm going to go do what that guy said, which probably worked for that person may not work for you.

SHAWN STEVENSON: Man. This is just, it's such a, once we can fall more in line with our bodies underlying intelligence, like you just said, we are living in an environment that is very, very different from what we evolved with. And our bodies are really resilient at the same time. But the amount of things that we're exposed to, and I want to talk about some of these of course, but it just is really conjuring up for me. An important takeaway for everybody is to understand that our bodies are going to make adaptations that we would label disease, right? We'll give it a disease label or diagnosis, but it's simply an adaptation to continue to function and keep you alive under unideal circumstances. And it makes me think about like type two diabetes, which is obviously just skyrocketed in recent years. And we'll put it out for everybody.

There was a paper published in the New England Journal of Medicine. It was, effectively diabetes over the last 200 years. And everything remained relatively stable for a long time. And then in the last 40, 50 years, rates of type two diabetes quadrupled. It quadrupled in the United States. And we just see it again as just this, like for many people it is a life sentence. They get this diagnosis, and they never get the opportunity to be educated like, why did this happen? Right? And what it really is at its core, we can talk about the mechanisms, but at its core it's the exposure to abnormal amounts of sugar, which we never had before. Like as you mentioned, pluck out the ground hunt, whatever. Now you got twink, like literally just going out our door, like the convenience store in this office building there's just all these ultra-processed foods that are full of sugar.

And that's what most people are seeing as food. And that kind of exposure, our bodies are going to make this adaptation where it's producing all this insulin to shuttle that out of our bloodstream, tuck it into fat cells, and suddenly those fat cells are like, nah. Like, I'm already trying to keep you alive and I'm struggling. We're going to create insulin resistance. Even though you're still making it, but we've got to, we got to protect you in this other way. And so, this other thing, like basically it's a tier situation hierarchy. So, you're going to have this other outcome. We're protecting you from something worse, but we're going to switch over and make this adaptation. And so, with that being said, what are some of the other things in our environment that we might not be aware of? And matter of fact, let's keep in the same lane of something that's very high in sugar, orange juice. You just did a great video about this problem with orange juice.

KASHIF KHAN: Yeah. So forever chemicals, right? And there's so much more to say about diabetes, which we'll touch on too. But there was a study that came out of this military base in, I think it was North Carolina, where there happens to be like elevated Parkinson's from those particular vets. So why from this jurisdiction is there more Parkinson's? And remember, we think that Parkinson's is an innate, it's coming, right? It's not caused, it's a genetic condition. It's not chronic. This proves it is chronic. So, when they tested everything, they could, what they finally found was in the water, there was an elevated level of this chemical called TCE, which is known to be neurodegenerative, right? And it's spilling off from some industrial work in and around the area. This chemical is in 30% of American water, right? And you have a 30% elevated level of Parkinson's in this particular base. It's a forever chemical. Which means that not only does when you, when it leaves your body, you pee it out, it goes out into the drain, it comes back. It doesn't break down.

SHAWN STEVENSON: Yeah. It doesn't break down.

KASHIF KHAN: Right. So, it's constant and forever. And this is why our water has so much more and more. So that orange juice example, there was a brand that was sued by a bunch of people.

SHAWN STEVENSON: Simply Orange. We'll call it out.

KASHIF KHAN: We'll call it out owned by Coca-Cola. And by the way, it was still on the shelves, and it still is today, right after this is, this is public knowledge. There's an open lawsuit because of the forever chemicals that have been found in highly elevated amounts, many hundreds of times, the upper level of the EPA, the Environmental Protection Agency, which tells you that it's toxic and poison, but it's still available for sale and it has not been resolved. And, but then you ask the question, why did they put this in the food prop like intentionally, it's likely the water, and they likely didn't even know, So the testing and the safety protocols that we need for today's reality are very different than what we're doing. Going back to the diabetes example, another it's not just the environmental and the sort of toxins, it's also the food itself.

Look at high fructose corn syrup. There was a study that was done where they took people and put them on an American, "diet" high and high fructose corn syrup. And they did this for six weeks, 600% increase in fat production because fructose is processed through the liver. So there's lipogenesis new fat, and you combine that and stack that on top of the insulin resistance. And then add your seed oils and linoleic acid. You add all these metabolic dysfunctional foods, and you cannot get out of that trap you are in. When you start to cut out the sugar. Why am I still suffering metabolic dysfunction? The CDC says that only 5% of Americans are metabolically healthy. And this is the CDC. So, it's probably 2%, right? If they're saying five. So, what does this happen? It's not just sugar, it's everything else too.

SHAWN STEVENSON: Wow, man. This is crazy. So, what do we do to defend ourselves from the OJ.

KASHIF KHAN: Yes.

SHAWN STEVENSON: I'm not talking about, you know, who I'm talking about orange juice.

KASHIF KHAN: Yeah. Well, so first of all, just knowing, step one is knowing 'cause people are completely unaware if it's on the shelf, there's an assumption that it's safe. So just knowing that what the labels mean, where how is this stuff made, you know, and go online and watch some videos of how this stuff is made. You're probably not going to want to eat it anyway. Right? And understanding, go to the environmental working group's website, and there's tons and tons of data on how toxic, each product is. And if you do one thing for yourself and your family, spend some time on this website, ton of data, every bar of soap, every shampoo, it will tell you what's going to kill you and what's not. And there's a very few what nots today, by the way? Most of it is damaging. And a lot of the manufacturers themselves don't even know.

They don't know what they're putting in and adding in simple example, China has banned the import of American bread. The UK has banned the import of American bread. Most of the EU has also, and it's not because of the sugar, it's because of a chemical called potassium bromate.

SHAWN STEVENSON: Yeah.

KASHIF KHAN: Which by the way, is also used to make carpets, yoga mats, plastics. It's like literally that toxics of a chemical. And it's a class one carcinogen. Like it causes cancer. They also don't allow most American meats to enter. They've come here to produce their own meats. They're buying up our farms, but they won't buy what's produced for local supply because it's literally considered the same level of carcinogen as asbestos, sorry, asbestos, plutonium at that level. So, knowing what you're eating and knowing that the regulatory levels here are far inferior to what they are overseas.

SHAWN STEVENSON: That is just crazy. And you mentioned Coca-Cola and Simply Orange, for example. Probably not realizing that the water is likely to be an issue that in of itself. And for us, and even thinking about our own water, is there anything that we can do to improve the quality of the water that we're drinking? Or maybe even if Coca-Cola, I know somebody at Coca-Cola is listening to this right now, what can your company do to improve the water that you're using for your products?

KASHIF KHAN: Yeah. Simple reverse osmosis, right? If you put it through that process, all you're getting out is water, but then you've lost the minerals. So, one of the benefits of water, there's multiple hydration. We are meant to have some salt. We're meant to have some minerals. So those need to be added back. And this is one of our challenges is we clean our water, then we're void of minerals. And that makes us sick also. It's also structuring it, right? So, the same EMF by the way, that's why I'm wearing this EMF, protector, also damages the molecular structure of the water. So, you picture a beautiful, picturesque snowflake, and then one that's a little bit off, that's what's structure means. The actual molecular structure. And the water isn't as hydrating and isn't as healthy and actually doesn't enter the cell properly unless it's structured, right? Yeah. So, learning simple habits like that, there's a lot of devices you can buy. Yes. At a corporate level, they should be doing this before the water enters. When that's going to happen, we don't know. So do it yourself at home.

SHAWN STEVENSON: Yeah. Oh, man that's so good. I remember learning about this is maybe 15 years ago. And I was curious like, how does water get into ourselves. We have this extracellular fluid, then we have the hydration inside the cells, and it just, you know, it had me in some like Tom Hanks Life of Pie scenario. Like, what if you are in the... Like how do you die from drinking water, right? If you're drinking ocean water?.And I just had all these questions, and I came across, fortunately, some research, and it pointed to these channels that our cells

have these protein channels called aquaporins. And as you just mentioned, how our cells are actually getting hydrated or being able to travel across that medium depends on the structure and makeup of that water. Like it really does matter. And being that we are mostly made of water, like you can have some really low quality, the conductivity is going down, all these simple things, if you're depleted on electrolytes and things like that. And so, this is really powerful. And also, just remembering we've got these glasses of water here. It's a universal solvent. You just said it like it's picking up all this stuff in the environment. Water is a serious concern. If you're not making sure that your water, the sourcing is high quality and/or you have a treatment for your water. It's one of those things that unfortunately it's a hidden problem that a lot of people are exposed to.

KASHIF KHAN: It for sure is. And a simple concept that we don't even think about is that we are, look at the United States. It's a melting pot of every culture you can think of. Meaning we all came from somewhere else, meaning that our genetics is still assuming that the water we're getting is of that jurisdiction. Now, the mineral content and the frequency, truly the frequency of that water is local. So, when we're buying bottles of water that are imported from France, or we're sitting here drinking American water, our body is confused 'cause we're tuned cellularly to receive a certain frequency, and we're not. If you get down to the quantum physics level of it and go, whoa, whoa a little bit, you know? So truly, we have to also understand that. And, and this is why structuring is important.

SHAWN STEVENSON: Yeah. Yeah. So, I want to talk about another one of these concerns with our environment. Again, something that we take for granted that we interact with on a daily basis. For most of us, it's toilet paper. talk about the issue with the toilet paper. Man, it's crazy.

KASHIF KHAN: It's toilet paper and it's tampons both 'cause think about, again, you have to think about the processing. We're just thinking of it as paper. Paper seems harmless. What did it take to get you that white bleached paper? A lot of processing and a lot of chemicals, including the water, which is full of PFAS chemicals. And so, we're learning now that the toilet paper is full of these chemicals that don't leave your body, that are carcinogenic in nature. And the skin in your anus is highly absorbent. It's like a perfect storm. It's even worse for women with tampons. Again, these same carcinogenic chemicals have been found in them. And the vaginal cavity is even more absorbent in terms of skin, you know? And the ability to take these and draw the chemicals, put them directly into the bloodstream. So, you wonder why there's so much breast cancer.

You wonder why there's so much mood and fatigue, and there's so many issues in women far beyond what men are experiencing. So, if you see a product that doesn't look like it's in its natural state, when you see paper that, what is paper? It's crushed wood. It should be brown, right? To get it. If you're taking your scallops and taking paper towels to take the water off it,

that's toxic, toxic stuff. So, get back to ancestral habits and ancestral traits and know that the processing itself, the ingredient of paper, the ingredient of natural flavor, the ingredient of salt, whatever it says on the label, does not include the processing it took to get it into the state you're seeing it in. That's where all the sickness comes from.

SHAWN STEVENSON: All right. So how are people going to wash that man? Like, you know, we don't, I'm even going back to ancestral, you know, when I see a film or a show that's based on like, old time. And I see people talking in close proximity. I'm like, if this was real, their breath probably was super stank. And just like, how often were they getting clean in this love scene? You know, so what are some things people can do to, rather than, you know, the conventional toilet paper.

KASHIF KHAN: So many more people are using bidets now. Again, going back to our old habits, that's what we did. We washed, if you picked up some dog poop, you wouldn't just wipe it with some paper. You'd be in there with soap and scrubbing it pretty hard, right? There's also organic toilet paper. You can get it if that's what you want to do. So, it's, it's every consideration, the things that are in your home, your bedsheet, your dry cleaning, your cleaning chemicals, your pesticides in your lawn. Extremely hormone disruptive for women, for so many kids that they're sleeping on a mattress that they don't understand are layered with fire retardants as a regulatory concern that they're breathing in. And genetically may not have the optimal detox pathways to clear causing things like eczema and migraines. And you start treating the eczema migraines not knowing it's that thing. Just get them off that mattress. Same thing with the toilet paper. Same thing with the tampons. Same with all of it.

SHAWN STEVENSON: Okay. Got it. Got it, got it. Now I'm of the opinion just based off of our behaviors, because a lot of things that we do, again, it's just normalized part of our culture. You know, my wife is from Kenya, and when she was younger, you know, they had the newspaper. Is what they were using for use in the bathroom, you know, it was like a hole in the ground. Literally that kind of scenario. And like her coming here and having tissue, like it's just like you are, it's like royalty suddenly you know. And having these, these things that again, are normalized in our culture, but we don't really think about where does it come from And so I'm of the opinion, of course, like, yes, let's create awareness and make sure that we have better options.

So, as you mentioned, you can get toilet paper that isn't treated with all these different, you know forever chemicals and other compounds. And also, in just surveying different people. They're like, I'm going to do all this other stuff right. And a little dabble on your anus with some, you know, Cottonelle isn't going to be as bad, but this is what I wanted to ask you about. It's the entourage effect. It's the compilation of all these things that you might not be aware that it's hurting you. So, sleeping on the bed with the flame retardants, you know, the tissue paper,

drinking Simply Orange, you know, and also plastics microwave in the microwave as well. Like, what's going on there? What's happening with our food?

KASHIF KHAN: You're right on that. It's cumulative, right? So, what we, you think of things in silos. I'm solving this problem, solving this problem. And yes, we do have detox systems. So, we take for granted that my body is supposed to be able to cope with this stuff. We have anti-inflammatory anti-oxidative systems. There's a bucket you can fill, but we're already full without even thinking about, just go breathe outside, just go eat your food. Right? You already are beyond human capacity if you're not careful with what you can cope with. So, the inflammatory load is probably already there. Now going back, yeah, you start to chip away, right? Little habits here, little habits here. Remove, remove, remove. And all of a sudden, the migraines are gone and all of a sudden you have a little bit better sleep, little bit more libido, right?

The hair stops falling out, skin is glowing. And you're wondering, why didn't I look and feel like this before? Because you were overloaded with the toxic burden. Which most of us are and bring it back down to that 70% level. And maybe you can handle a little bit of toilet paper and you can handle a little bit of breathing something nonsense once in a while. Right? But so going back to the plastics, we found that, microwaveable plastics, which are labeled as safe, and the FDA allows this labeling actually will, for one square centimeter of plastic, will add 4 million microplastics and 1.2 billion nano plastics into your food. This is a known fact. FDA knows this, but you can still go buy this stuff in a store, right? Now, one square centimeter, there's no dish That's one square centimeter. So, we're talking about many, many billions of nano plastics entering your food every time you use one of these dishes.

The microwave itself is a problem. Forget about that. We can talk about that too. But that dish, so this is where the scrutiny on what is safe and what is not safe. When you have that instinct that's telling you this doesn't seem right, you're probably right. Especially in the United States, the same things that are allowed here are not allowed in other parts of the world. Our scrutiny is much lower. Take a look at most jurisdictions, and the majority, and the biggest employer, I should say, is either pharma or big food. Literally 75% of the electoral regions of the United States, it's either pharma or big food is the biggest employer. And after that you have the chemical lobbies. So how do you work with that and have safety first? This is why we're at where we're at.

SHAWN STEVENSON: Yeah. Man, it's so true. Exactly. And I want to talk about the state of health and healthcare in the United States, but I want to circle back to the overarching principle of all this stuff, which is those exposures, those environmental inputs that we're taking in, whether it's from, you know, what we're drinking to what we're rubbing on your anus. These are all epigenetic inputs. These are influencing your gene expression. And I think that,

and this is already such a powerful conversation, but to have you here, I've got to talk about this. We started off talking about genetics and functional genomics.

There was a study, this was published in PLOS ONE, and the title of the study is Genetic Factors Are Not the Major Causes of Chronic Diseases. This is well established. Basically, our advancements in genetic testing. Were also simultaneously proving that genes aren't causing, you said this earlier, and I wanted to circle back to it. You said that this particular gene, that the public is being inundated with this idea that this causes breast cancer. You have this gene, you're going to have breast cancer get your reproductive organs removed breast removed, because it's practically inevitable. And what the science actually is demonstrating, and this is very, very well known, it's not even that difficult to find, is that is number one. There isn't a gene that's causing our epidemics of chronic diseases. But functional genomics is helping us to understand what these inputs are influencing. So, let's talk more about that.

KASHIF KHAN: Yeah. So that's the right way to look at it. And these guys are right, but it's half the story so take me for example. So, we've been talking about all these environmental threats. There's a gene called GSTM1. It is a primary defense mechanism and detoxifier of the gut. So, when you're eating whatever you're eating, all that comes along with it, that's not meant to enter your gut track and bloodstream. It's meant to use glutathione, that potent antioxidant to clear and get rid of. There's also GSTP1 of the lungs and GSTT1 which is, once you've got past these first line of defense, how well do you then detoxify what's in the bloodstream? This gene GSTM1 I don't have it. It's not about what version, what variant, missing. Entirely missing from my genetic code. It's called a copy number variation.

How many copies of the gene do you have? So, I haven't yet caused a chronic disease. I'm just born with a missing gene. There's an instruction missing from my human biology. Now, if I go eat the toxic foods that have food colorings, dyes, drying agents, packaging with plastics, et cetera, press process on metals that are cleaned with chemicals, I will get leaky gut, Crohn's colitis, leaky brain, brain fog, depression. Which by the way, I had all of those things. Somebody else with the ideal version of this gene eating the same exact food that I'm eating that has the capacity to detoxify, won't end up with any of those conditions. So, there's no, this gene equals a disease. This gene equals a priority. Here's a job that your body doesn't do. Now you know what choices to make to not get sick.

You don't have to go do everything. Start with this. This is 80% of your problem. It could be GSTP1, right? The gene that's primary detoxifier of the lungs. So, all of a sudden walk into a moldy room, somebody gets a headache, somebody doesn't notice, walk into a factory, somebody gets joint pain somebody doesn't notice. Longitudinally living in a moldy home with mycotoxins for this person with the bad GSTP1, they might get serious diseases like cancer.

Somebody else won't even get a rash. So, it's understanding, here's the biological process. I don't do this thing well. Now I can better inform what choices to make to not get sick.

SHAWN STEVENSON: Yeah. That's power. That's power to be aware of that. And this also speaks to when you were sharing that, it really brought to mind how we all had this kind of unique genetic compilation. And it's also going to influence, it's going to basically give us a template of how we are right? We're like, it's like our factory settings. And then we can, through our lives and through our choices, we can upgrade or downgrade.

What our vehicle is doing. And so even with our personality, and you've seen this, we were just talking about this with our kids, like they're coming into, they're getting downloaded here with a personality, like it's there. Now, of course there's nature versus nurture and all these things, but there is a very notable, like, even when my youngest son was, he couldn't even, he couldn't talk, he couldn't get out of the little chair that we put him in, you could see that he's trying to get up and do his own thing. Like you could tell like he wanted to, he didn't want you to, he wasn't like a always kind of hold me baby, necessarily. Like he wanted independence. And so, he's carried that energy with him, like literally as a kid. Just like, why is this kid like, so and... But even within that, and what I want to circle back to is the power that we have once we become aware of this, and you mentioned the situation that you were in, so what led you... What was your experience... Your story your superhero order story, like how did you get into this field? Like what was going on with you and how are you able to be here today?

KASHIF KHAN: So, I don't come from this world, and I think that's what was required, because when I...

SHAWN STEVENSON: Are you talking about, earth?

KASHIF KHAN: Health and wellness.

SHAWN STEVENSON: Right.

KASHIF KHAN: Right? I ran a marketing company, well I'm from Toronto, and there's amazing start-up seen there because of some schools we have, there's a lot of engineers that build tech products, and I would help them grow their businesses, and we had a lot of successes, and I just got really sick. So, I had never been through this journey of having to deal with the illness before, I was fine up until the age of 38, and all of a sudden migraines, de-habilitating, couldn't function. Depression didn't want to get out of bed. Got issues, psoriasis, which is an autoimmune condition and eczema which is inflammatory, so I had both autoimmunity and inflammation, and the multiple doctors that I was going to... Couldn't answer the question why, and I didn't know that you weren't supposed to ask that question. I thought that was part of

the game. I was like, tell me what I did wrong. What did I eat wrong? What did I breathe wrong? Like we don't do that here, here is the pill, here's what your thing is called, This is what you're going to be doing for life.

So, what most people do when they find root cause medicine, is they go on a self-discovery journey, because they've been failed by their healthcare practitioner and they figure it out, and that's what I did, and that's when I started to discover these conditions are not innate, you don't have them, they're caused... Your choices cause them. And I started to reverse and fix and when I got stuck, that's when I discovered in my genome, certain code was broken, and you talked about mood and behavior why did I have depression? Because the receptors in the brain that allow you to bind dopamine, an experience reward or pleasure to be normal, I have the lowest possible density genetically prescribed, so the gene that instructs the ability to bind on to dopamine to feel good. I don't do that, the clearance gene that actually gets rid of the dopamine to bring you back to normal, I have the fastest possible clearance, so I'm feeling it way down here and it hardly lasts, so depression is sort of my baseline or addiction, or if I push myself, achievement, 'cause dopamine, not only powers pleasure it also powers reward, and you only need one of those two satisfaction, and I've experienced all three of these things in my life based on the context.

So, I started to understand that I can manage and control. I literally gave the keys of our marketing company to my business partner and said, I found purpose everything I've been doing up until now was for profit, and I never understood the meaning and value of purpose, and now I do... I got my arthritic mother out of bed, she was literally couldn't move, she now goes to the gym with her trainer every day I got my anxiety-induced niece who literally ran away from home about to be prescribed a pill, and I understood it had nothing to do with anxiety, it was her hormones, and I fixed that, and how many young women are out there suffering from the same... My friends started to heal around me, a friend that was on Lipitor for cardiovascular issues is no longer on it, 'cause I understood why, what was causing it. And that truly became this mission, this purpose of... We've have now tens of thousands of people that I've worked with to get them from either disease, to not disease or preventing what's coming. Right?

SHAWN STEVENSON: That's powerful, man. You were sharing that your niece is really a catalyst for you to do this at a larger scale and impact people, and it's also transformed into a great book, The DNA Way. Let's talk a little bit about what people can learn from the book.

KASHIF KHAN: So that moment with my niece took me from... We are a research company. The experience I went through understanding the genome was powerful, but it wasn't available, like nobody at that time could access what I accessed, and so I had to rethink... And this is why I said it's important that I came from outside of the industry. I had to look at all this data and

science and then make it fit the consumer's world, right? Make it the tool that I wished I had access to, that's what I was trying to do, so... And my niece getting sick, she actually ran away from home from an anxiety issue and we couldn't figure out what was going on, I looked at her genetics and she was being prescribed a pill, for all the conditions and symptoms for anxiety, and what I found was my mother and my sister were texting me every month, like clockwork, saying she's had another anxiety attack, she's had another anxiety attack, so I said, this must have something to do with her cycle because it's like clockwork monthly. So, I asked them what part of her cycle was she in.

They said, oh, you know what, you're right coincidentally, right in the beginning. So, I looked at her hormone cascade, women take progesterone convert it to testosterone, then make estrogen, and she did that very poorly, so the beginning of the cycle is when you have the lowest hormones, you just go rid of everything. She went to a much deeper valley, so hormone levels are low, which already causes a load on mood and behavior, but it didn't happen until then, even though she had been having her cycle for a couple of years. This happened during peak COVID in Toronto, world's longest lock down, she hadn't been outside in five months, so I looked at her vitamin D cascade, there's three genes of all the micro-nutrients, Vitamin D is the most complex because you can overdose if you have too much and our ancestors were outside all the time, we're indoors all the time to completely converse, so our ancestors develop the ability to mitigate the overdose and slowly drip and use it, and now we're in a different context, which is why, again, we're sick of the 22000 genes that make up your genome, 2000 require vitamin D to function and express properly, so 10% of your human biochemistry is depending on this one thing, right?

SHAWN STEVENSON: This is powerful.

KASHIF KHAN: Yeah so Gene one, take D2 from the sun convert it to D3, worst version of the gene, gene two take that D3, move it to the cell transport it, she had the worst version of that gene, gene three VDR, it's called bind it and connect it to the cell, she had the worst version of that gene, so in a context where she hadn't got any vitamin D, she was also a horrible metabolizer, and this being a load on the hormones, exaggerated that problem, so why then of all the potential problems she could have, did she have an anxiety issue, 'cause she's wired exactly like her crazy uncle, she has no dopamine, ancestral trait. Low dopamine very fast clearance, so she's already teetering on depression and anxiety.

This was the catalyst. The prescription was a pill, all I did was give her a high dose vitamin D, 10000 IU a day, and I split the dose, 'cause remember she didn't transport and bind it, so I gave her multiple doses and I gave her L-theanine to boost her dopamine levels never happened again. It never happened again. It's been two years. Never happened again. She would've probably still been on an anxiety pill today.

SHAWN STEVENSON: And very likely still expressing the symptoms.

KASHIF KHAN: Yeah.

SHAWN STEVENSON: You know, that's the other part about this system is that it's masking symptoms while not really addressing again, a root cause. And if we're talking about the root of the root, we're talking about influencing our genetics. And this is a good place to talk about again really unpacking this in the DNA way you shared her story for example. And also pointing us towards empowerment. Like what are some of the things that we can do rather than, again, we have a system where it's just like, you sit back, take this thing and you know, we'll see what happens. Or what you kept experiencing with your niece was we'll keep an eye on it kind of thing. Versus like, why is this happening and what can I do proactively myself to be a conscious influence over my genes? Like these are my genes. Shouldn't I have some tools to be able to, to better understand this? And so that's what the book is about as well.

KASHIF KHAN: That's exactly what it is. I lay out my personal healing journey to show people irrespective if you have access to your genetics or not, a different way to think about your body, to think about it at the root cause level, at the system level. So, what we're not, we're taught symptoms. We all know what a headache is. We all know what breast cancer is. We're not taught systems. Not many people understand their hormone cascade. They don't understand the neurochemicals of the brain. They don't understand detoxification and anti-oxidation. You know, if you start to understand those systems and there's not many that you need to know, you can unravel and unpack most problems. And of the 22,000 genes, I only looked at about a hundred of them. 'Cause those are the functional ones that drive the core systems. You get these systems and ask me any question about any chronic condition, we can probably answer the root cause from autism to hair loss to you name it.

Right? Because they're all driven by system failure, which means the choices you make, environment, nutrition, lifestyle are misaligned to your genetic capacity to process that choice. That equals disease. That equals problems. Make the right choices, it equals thriving. When you look at the actual hardware of DNA, like look at the actual structure, there's these caps on the end that are called telomeres, which are these bumpers that protect your DNA from damage. They look like they're designed to last 120 years, which means that's how long we should live. And if you didn't live to 120 with good health, it's the choices you make that take years away. That's what's happening. We should get to that number with good health.

SHAWN STEVENSON: Now, in reality though, in our current reality, which that is the reality for some people in some environments, and we're going to talk about that shortly as well. These spots around the globe where they have a lot of centenarians' people living beyond a hundred,

but not just lifespan, but still maintaining functionality. Contributing to community, being able to work if they choose to, like all of these things. But for many people in our modern society today, decades earlier, they're falling into very high levels of disease and dysfunction. The CDC, you mentioned a CDC stat earlier, but the CDC's recent data from last year, 60% of Americans now have at least one chronic disease. 40% have two or more. And now I want to shift gears and talk about the system that we're existing in. Because it's a big part of the problem.

We're not getting better. You know, you just mentioned we should be living up until that point, but, and our lifespan was increasing over recent generations, but about 20, 30 years ago, that trend of our life span extending, reversed. And now our current generations are not outliving previous generations as far as our lifespan. So, like we're existing in this paradox where we seemingly have all this advancement, but yet we are sicker. And this is all manner of sickness, mental and physical health, and dysfunction. And so, with that being said, let's talk about this model because not only is it not helping us to get well, it's also profiting from our disease. And it's keeping us in a place where we are even more dependent on it because we're financially broken and physically broken. Can you talk about the connection with healthcare and bankruptcy?

KASHIF KHAN: Yeah. So today, 66% of American personal bankruptcies are due to healthcare costs. So, you work your whole life, you work your whole life to input into the system, support the system for it all to be taken away because you're sick. So, speaking of life expectancy, for the first time ever, American life expectancy dropped by three years this year. If it was three months, it should have been a giant red flag all over the news. It dropped by three years. There's certain things we can have in a whole other one hour conversation about that may be causing that. But a drop by, and it's not because people are dying younger, it's because young people are dying. So chronic disease is coming earlier. So, it's skewing the data. That's what happened. So, there's another military study where they looked at the breast cancer data of the last two years for female, for service, women, females.

478% increase in breast cancer in the last two years because immune systems have been shot. And again, a whole other conversation. But we're seeing all this happening. So, you live a life where the food, the fuel that is supposed to give you life is fueling disease. The environment which is supposed to give you life is fueling disease. The relationships that are supposed to give you life are fueling disease. The longest health study that's ever happened is based out of Harvard where they were trying to figure out what actually gives people extra years, what causes long, what's that one thing. And when they unraveled, this thing started in the 1930s by the way. 'cause they're really longitudinally tracking. They said it's relationships. People that have the best high quality, tight knit, less number, but high-quality relationships live the longest. 'cause what that does for your hormones, your neurochemicals, your cortisol, all these things that are aging in effect as opposed to anti-aging.

Those people live longer. We don't have that. Ask a young person they don't know what a relationship is unless it's scrolling through a phone. So, all of these inputs are far beyond what we're capable of handling the top 15 killers, it's actually 14. But the 15th one I'll tell you about, out of the top 15 things that are going to kill an American 14 are rooted in inflammation. They're all the same thing. They're all the food, the air, the relationships causing inflammation, lack of sleep, et cetera. Which disease is just a Russian roulette of the hardware quality. We can predict this genetically how good is your cardiovascular hardware? How well do you deal with plaque buildup and get Alzheimer's? So which disease? That's the lottery. But inflammation is going to trigger it. The 15th, which is actually the number three cause of death is medical error. It's just a doctor making a mistake. And that also wouldn't happen without inflammation. So, they're all 15, the same thing. So, we don't see this so much sort of in our last couple generations. And we also don't see this in other countries. This is a very American problem. It's the American food, American air, American relationships, all equaling, 66% of people are going to lose our life savings because of this.

SHAWN STEVENSON: This is like, this is like a bad dream, you know? And for many people, they're living in that, they're living in that nightmare. And you know, it's very easy to lose hope. And what we're here to do, I know this, and this is why you're doing what you're doing as well, is that we can change this. And right now, I think we're at a very, very critical point because so much, there's so much turbulence and things are in flux. And also, our access to data it's never been like this before, but then there's a phase right now that we're experiencing where there's trying to be like a control of the data and communication and whatnot of the people. But as we peek our heads out through this, and also, I think that our level of health is going to determine how we're able to traverse these situations.

Because with censorship and whatever, like to be more creative so many times I have friends and colleagues that might have got banned from a platform, for example. And they're just like, how did you not I'm just like, I had to find, I had to become more creative. And also, again, very, you know me, I'm just very much on here is what the sign says. This is a factual published peer review paper that I'm sharing. That's all it is. I'm just sharing the facts here. And, but even with that, it's the way that you do it today as well and so trying to find a soft place to land the information with people and also speaking through the lens of curiosity and not like I have the definitive thing as well.

And also, I've seen this like revolution in humor as well. You know, like a lot of people are delivering, and I think this has happened historically as well, like delivering things through the lens of comedy. Like bringing a lightness to very harsh and serious topics. And I remember Katt Williams, a comedian doing a bit about the opioid epidemic. And you know, here in the United States, well over half a million of our citizens have died due to opioids. Like please hear over a

half a million people. It's insane. Like, how is this even a thing? And it has, it exploded even more over the last couple of years. Right? And so much so that for people in their prime of life years between the age of what was determined to be in our society, prime of life years between 18 and 35, it became the number one cause of death is overdose.

And this should be front page news every day. But it's not, it just gets swept under the rug. But he was doing a bit and he was saying the opioid epidemic is going on, but nobody is going to jail because the dealer is your doctor. You know, and that's the reality of the situation. It's just like we have a medical model. And of course, yes, there's some illegal stuff going on with opioids. Yes. But we have a medical model that has allowed that this very dangerous drug to proliferate because the people who brought it to us were drug companies and sales reps. And again, so that's what I want to talk about next because you have some very great insights about pharmaceutical industry and our current healthcare system.

KASHIF KHAN: So, using that as an example, the exact picture you painted, what was the FDA's response? So you would think that this, first of all, what was this drug for? It was for cancer patients. It was for people that were in extreme pain.

SHAWN STEVENSON: Supposed to be.

KASHIF KHAN: That's what it was originally called before.

SHAWN STEVENSON: Framed as.

KASHIF KHAN: Yeah. Now it's just like, oh, your shoulder hurts. Okay. Take some of this. Right? Just to be able to prescribe. The family that owned the pharma company that made this stuff, that did what they did. They've all been sued court, like all this stuff. What is FDA's response? It is still available. They just approved a drug that now saves you when you're about to die from the negative outcomes.

SHAWN STEVENSON: Oh, my God. Wow.

KASHIF KHAN: So that's the response. It's like, "Okay, don't worry. People aren't going to die anymore." This happened about three months ago. So, when that's the answer, you already know how they think and where the navigation comes from, it's not about you, the intention is we can't get this off the market, but we have to also deal with this problem. That was the response.

SHAWN STEVENSON: Got a quick break coming up, we'll be right back. The human brain is the most powerful pharmacy in the universe, and I'm saying that because every single thought

that we think creates correlating chemistry in our bodies, and that biochemistry is designed uniquely for you. It's beyond bio-identical hormones or bio-identical neurotransmitters, these are designed specifically for your own receptor sites, so what you're making within your own body, based on your thoughts, your perception of reality is of the utmost importance, and obviously thoughts of stress and anxiety and worry and fear, these are going to create cascades that make us feel a certain way, the same with more positive and affirmative feelings and thoughts, of joy, of love, of connection, but all of our emotions matter. Now, the thing is, if we're talking about health and longevity, we want to make sure there were stacking conditions to have more positive affirmative thoughts and buffer us from the stressful thoughts that we are inevitably going to have. Now, our sleep hygiene, our movement practices, and also our nutrition are of the utmost importance in helping to modulate these things, and when it comes to managing stress, there is one particular story tea that has been utilized for thousands of years that stands head and shoulders above the rest.

A study published in Biomedical Research on a test subject with a variety of health complaints including anxiety and poor sleep quality, were given Lion's Mane medicinal mushroom or a placebo for four weeks to monitor their metabolic and psychological impact. The participants who utilized the Lion's Mane had significantly reduced levels of anxiety and irritation than those in the placebo group. The researchers stated, "Our results show that Lion's Mane intake has the possibility to reduce depression and anxiety." Not only that, scientists at the University of Malaya discovered that compounds in Lion's Mane are able to significantly improve the activity of a nerve growth factor in the brain, nerve growth factor is essential in the regulation of growth, maintenance, proliferation, and survival of various brain cells. If we want to have a healthy brain and protect our brain cells, which we don't have the regenerative activity of brain cells like we do other cells in our bodies, we've got to take care of our brain cells, this is one of the few things ever discovered that has that protective capacity, for me and my family, we want to make sure that the medicinal mushrooms that we're utilizing, Lion's Mane, Chaga, Reishi, and the like, are all done via a dual extraction to make sure that we're getting these bioactive compounds in a more full fashion.

So be it a hot water extract and an alcohol extract, there's one company that's doing that and infusing these incredible medicinal mushrooms into things like organic coffee, organic hot cocoa, and I'm talking about the folks at Four Sigmatic. Go to foursigmatic.com/model, you get 10% off, store-wide of all of their incredible medicinal mushroom elixirs, cocoas, and their organic coffee blends as well. Today, I actually had the Lion's Mane and Chaga Organic Coffee blend. This is one of those things, of course, it puts you on 10, but it helps you to modulate and manage your energy, it's not one of those things where you get this jolt of energy and then it leaves you lagging later on, it's very steady, mild mannered behavior, and also helping to really activate the cognitive function that we're looking at when we're talking about things like Lion's Mane medicinal mushroom. You can get 10% off store-wide plus more, they got some

incredible packages that you've got to check you out in the specials over at foursigmatic.com/model. Go to F-O-U-R-S-I-G-M-A-T-I-C.com/model for 10% off store-wide and more. And now, back to the show.

Our economy, and a lot of people don't realize this, and again, this is... I'm so glad to have you here. Our economy is deeply dependent on poor health right now, for numerous reasons.

KASHIF KHAN: $4 trillion industry, $4 trillion industry, and 90%, this is, again, according to the CDC, is chronic disease. So, $3.6 trillion is all stuff that we don't need to have, that's caused. The food industry is $4 trillion. So you have a $4 trillion industry that's owned by the same people fielding this other $4 trillion industry, how are you going to break that down and reverse engineer that, and you have this moat around it, I try and work with the FDA, I sit in front of people, they say, "Wow, this is an amazing solution, let's work on it," it gets to a decision maker, disappears. You know the lobby is so powerful, even chemicals, there's been 144,000 new chemicals introduced to humanity since the 1970s, most of them around food processing, why do we need that many chemicals to process our food? Why? It doesn't make any sense, right? So yeah, so all of that intertwine equals the way we are today, it's... So, all of a sudden you have... When I go to the FDA, and I've done this many times, I spent a lot of time in Washington, sitting there with people that are vetting what we do, and I say, "Here's how I can reverse your massive cardiovascular... " So this is a number one killer, by the way, in the United States, is cardiovascular disease.

"Here's how I can reverse this epidemic that's not even being spoken of." We know that cardiovascular disease is not a disease of the heart, it's a disease of the arteries, the endothelium, the inner lining of the blood vessel gets inflamed, and your body will actually deploy cholesterol to reduce the inflammation, and depending on your genetics, you have different quality hardware and different capacity in terms of moving cholesterol around your body, the APOB gene, it's called. The toxins that actually cause the damage to the endothelial to begin with, also oxidize the cholesterol. So, then it hardens, and it starts to build up, so I'd sat there with them and shown them this and said, "If I can tell you in a five-year-old child how the genetics of this looks, the hardware, how the genetics of their lipid transport looks. And I can tell you that they don't ever need to be sick. Shouldn't every child that's been born be given this instruction manual," like, "Wow, wow, wow, well, let's do this," Lipitor is the number one prescribed drug. So, when it gets to decision makers, disappears, fizzles out, I've done this in Canada and the US, talked to all the right people.

You look at the proliferation of Lipitor, which started a couple of decades ago, and the number of Alzheimer's patients, it's almost a direct correlation. The numbers look... The lines look the same. You're suppressing cholesterol for a person whose body needs cholesterol to suppress inflammation. Fat is what your brain is made out of. Cholesterol is the hormone you need to

support longitudinal brain health. And you wonder why at by a certain age people can't manage their cognitive health anymore, they start to experience decline. And Alzheimer's, we can have a whole one-hour conversation just about that, by the way, there's so much work we've done there, but, yeah, the... I've done it over and over and over again. Sat in front of the right people, on both sides of the border. It's not moving, we have to have our own cash-funded self-driven proactive healthcare industry, which you're seeing emerging now in functional medicine, and eventually there'll be so much efficacy that it's hard to deny. Right?

SHAWN STEVENSON: Man, this is... All right, even with this, you just brought up statins, and this is still the hottest drug in the world, multi, multi, multi-billion-dollar blockbuster drug. Even, that is a reality, that's what's happening right now, and at the same time... And this was just published recently, but it's still been out for a nice amount of time now, this was published in Current Opinions in Endocrinology, Diabetes, and Obesity, the study is titled, Statin Therapy is Not Warranted for Persons with High LDL Cholesterol on Respective, A Low Carbohydrate diet. And it was speaking to the influence of diet here, but most importantly, when you really look at this study, so this is a meta-analysis of a bunch of studies, including a variety of placebo-controlled trials. They found that LDL alone is "a very weak association with heart disease and stroke."

There's a bigger story here. And they went on to say that looking at certain numbers, like showing the people who have high LDL for example, but yet having optimal ranges of triglycerides and HDL, it says "taking a statin provides no benefit." Now this is still the number one blockbuster drug in the world right now. It's been particularly here in the United States. And we're not even looking at like, what is LDL doing? What is, it's a very superficial view of things. And so, I want to unpack this a little bit more. 'cause you brought it up. Heart disease is our number one killer. And you just talked about, because when we hear heart disease, we think of a heart, right? And you just mentioned how this has to do with our blood vessels, our arteries, our endothelial function, endothelial cells, and capillaries and all this stuff. What can we do then to protect our cardiovascular health, to improve our cardiovascular health, if not taking Lipitor?

KASHIF KHAN: So, understand what the disease is. It's not a, cholesterolemia is not a disease. Cholesterolemia is your body's response to inflammation. Whether it's your heart or your brain and any other part of your body. If you take, for example, you look at Europe, the country that has the, so France and Switzerland have extremely high fat diets, a lot of cheese, a lot of fats, right? And the Swiss in particular have one of the fattiest diets. They also have the highest cholesterol numbers in the whole EU by the way. They have the lowest heart disease.

They have the highest cholesterol numbers, the worst marker, the symptomatic marker. But they don't have the disease because you have to look at the rest of their diet. There's no high

fructose, there's no starches or well fast garbage starches. There's no inflammatory. Go look at Switzerland and it's beautiful and picturesque. There's no pollution in the air. You know, all those types of things. So, if the inflammation isn't there. Cholesterol is your friend; your sex hormones are all made of cholesterol. Your brain is protected by cholesterol. It's the same thing with dementia. Where you look at this gene, APOE3, and I don't know if you saw that show Limitless, Chris Hemsworth, was told that you have a eight to 10 times elevated risk of dementia because of this one gene. Without asking why is that going to happen?

Like what's the cause? This is a gene that again, transports lipids, right? That HDL, LDL process. And if you don't do that efficiently, when you send cholesterol to the brain to reduce inflammation, you're going to build up a amyloid plaque, which then leads to cognitive decline. And so, plaque is associated with dementia. Without asking why was a plaque built up, why was a cholesterol sent there again, it was inflammation, which is your gut, leaky gut causing leaky brain insulin response for women their hormone toxicity. This is why 80% of dementia cases are actually in women, not in men because they have the co-factor of the estrogen toxicity. It could be, you know, it could be the actual vegan keto low carb. How do I actually choose what's right for me? Genes already dictate how you metabolize each of those macronutrients.

And if you choose to be a vegan without having the right methylation genes to produce the enzymes to break down your chickpeas, lentils, legumes, you're not going to do so well. But if you do do that job well, yeah, you'll do okay. Most people don't. So, there's many, many factors that lead to the neural inflammation. There's a gentleman named Dr. Tom O'Bryan who, is on the board of the functional medicine institute. Right? So, I was speaking to him. He said he believes 66% of today's dementia is inhalation based. What we breathe because we're just living longer. So, our brains are more exposed for more years to all those toxins we're breathing in. One hour of LA traffic is like a pack of cigarettes, literally. It's equivalent to that carcinogenic load. So, if that's what you're breathing and you're causing that level of neural inflammation ongoing every day, every day.

Yeah. You're going to have cholesterol deployed. And it's the exact same thing in your cardiovascular system. The 9p21 gene will tell you, do I have a stainless steel resilient endothelial that can handle a lot of inflammation? Or is it paper thin where that load is just much more meaningful to me? That LA traffic or that cigarette or that whatever, right? Then yes, I'm more likely to get that cholesterol buildup. And yes, I can then look at my detox pathways to see what toxins are coming in that are going to cause the inflammation in the first place that are going to oxidize the cholesterol. And I supplement for that, or I remove that. All of this can be reverse engineered this, the number one fastest thing I would say that we reverse in the clinic is cardiovascular disease. It's the easiest, fastest thing to do. 'Cause it's so easy to determine why it happens.

SHAWN STEVENSON: This is so good. Alright, so you mentioned the Swiss and a much closer proximity to real food. You recently shared, a great video and I highly recommend everybody follows you on Instagram as well. What's your handle on Instagram.

KASHIF KHAN: Kash... So, it's not my full name. It's Kashkhan K-A-S-H-K-H-A-N official.

SHAWN STEVENSON: Perfect. And you shared a video recently sharing, five of the top foods that are eaten in one of the places on earth that have one of the highest rates, if not the highest number of centenarians or you know, just the ratio of the population. So, these are people that live a hundred years and beyond and it's in Okinawa. So, can we share some of those foods?

KASHIF KHAN: Yeah. So now it's important. I'm going to tell you more. I'm going to go on a bit of a rant. So, there's the foods themselves and there's a couple hidden items in these foods that we don't think enough about. So, the obvious one is they eat a lot of fish. And this is also true of Sardinia another, blue zone, right? So, what's happening there? Omega-3s, the fatty acids that give you cognitive health. You cannot live over a hundred if you don't maintain your brain. And this is why people that eat a lot of omega-3 fatty acids will eventually live longer, right? All function is superior if your brain health is superior. They also, and this is one of the hidden things, is they eat measles soup regularly. And why is that important? Fermented food, right? Fermented food, supporting your gut. 80% of your immune system is in your gut.

So, if you don't have a diverse flora of microbiome, you don't have a good immune system, right? So, it's very important for longitudinal health. Those cancer cells being constantly fought, those viruses being constantly fought. That's your immune system, right? They also eat this unique plant. It's a purple, sweet potato and it has a compound called Anthocyanin, which is a potent antioxidant. And this is one of the other secrets. So, what is aging? Aging is your cells getting oxidized and degrading over time. Your DNA getting damaged and oxidized. So, antioxidants will protect you from that. And we don't have enough of them in our food, right? So, this is why they also, they eat these daikon radishes, which is another one of the big things they eat, which are more than the daily recommendation of vitamin C from one serving, another potent antioxidant.

The other big thing they eat, and this is I would say probably the number one thing that is deplete from our food. They eat a lot of seaweed, which is chockfull of minerals. And this is really, really important. 'cause we think of, for example, your bone as calcium. There's actually 61 minerals to make up your bone, right? It's not just this one thing calcium. So, if you remove all the minerals from your body, you are literally water and plasma, right? That's what you're just going to be a pile of human soup. So, and this is the number one thing we're missing. What

you have to keep in mind is you aren't just what you eat, right? You are what you eat, ate. Meaning when you pluck a fruit from a tree, it's a conduit. It's that vessel that drew micronutrients from the earth and put it into a context that you can actually consume.

You can't shovel dirt and eat it, right? That's the purpose of these plants, is to take this thing, convert it into something that's useful for you from a phytonutrient to an antioxidant. And that's what these plants actually do. And that's what you consume. But the earth is dead, right? When's the last time you saw an earthworm? Right? When you were a kid walking around, walking to school, you saw worms when it was raining. You don't see that anymore. 'Cause there's so many pesticides and chemicals killing the ground. The earthworms, offer what are called castings with their poop. They aerate the soil, right? So, the earth is dead. And so, what you're deriving that fruit that you pluck came from dead plant or dead earth. So, it's a dead fruit. You have to mineralize and knowing that it's not going to come from the food itself.

So, add minerals. There's one very potent function of minerals that we don't think about. We think of it as more like a vitamin, right? Something that we need. They are a key tool for removing toxins from your cells. So fulvic and humic minerals, there's two types of minerals. They actually will go into your cell and carry antioxidants with them, with a positive electrical charge. Enter your cell. They're one of the few things that can cross that membrane, enter your cell deposit, the antioxidants to clean up. Then their electric charge reverses and they magnetize the yeah, exactly. They magnetize the junk and remove it. And we don't do this anymore. And our body still assumes that our food is doing this, giving us these micronutrients.

SHAWN STEVENSON: Oh, my goodness, this is, and again, it's so simple and logical as well, you know, the health of the soil. And one point that I want to make and then, you know, I think a lot of people are just really curious about how can they dial these things in for themselves. Is that even with those foods that are incredibly healthy foods, you know, for just about any of us are going to extract some benefits, it's still going to be unique to you, which foods are best for you. So, you might hear about purple sweet potato and just think like this is the, but maybe not for you. But if you're going from, you know, microwave Salisbury steak to the sweet potato, you're pretty much anybody is going to get some benefit. But this is speaking to the expanding fields. We got nutrigenetics, nutrigenomics. And looking at your genetic blueprint, your template, your cascade of genes, we can find out things that are going to be more helpful for you versus the next person. And also, things that you probably want to avoid. And so how can people find out more information about their own genes? And also, where can people find out more information about you? Pick up your book and all that good stuff.

KASHIF KHAN: So, The DNA Way, the book is everywhere, You know, Barnes & Noble, Amazon, wherever you get your books. It was, you know, a year of my life night shift, let's say that while I was trying to run this business and build it, I was, at night writing this book. So, it's out there

everywhere. In terms of the testing, you know, I really tried to curate, and this wasn't our intention. When I set this up, our intention was to research and then partner with healthcare companies, hospitals, et cetera, to help them do a better job. I wanted to take my experience of healthcare sucks and fix it. And I didn't think that I would ever directly be able to deal with each individual as a consumer. And that's what's happening now is we have thousands and thousands of people saying, I need this test and I'm going to apply it.

So, the dnacompany.com is where you get the testing. And I would even say, this is just, I didn't even think about this, but the dnacompany.com/model, we'll make sure everyone gets some kind of discount there. If you're listening to this, right? So, we'll plug that in. And from there, don't expect a genetic report. 'cause that's what I got and it didn't work for me. So, what I built was the insights, which is I don't need to know what version of a gene I have. I need to know what's wrong and how do I fix it. It should be that simple or it's not a useful tool. So, it's speaks to six core systems, mood and behavior, everything about the neurochemicals of the brain. So, I know what career I'm wired for. I know why I burn out, why I procrastinate. I know why I feel anxiety in a very specific form of anxiety and what to do about it.

And I know that the same thing that causes me anxiety is actually my superpower. In the wrong context, it becomes a kryptonite. So, everybody using these words, why is there such a proliferation of mental health post COVID, right? Mental health issues, you didn't have them preCOVID so you don't have them. They were caused context shift. So, let's turn it back into a superpower. If you understand what it is. Diet and nutrition, macros, micros, what vitamins do I need? How do I plate my food? Et cetera. Disease and prevention reversal. What's coming that GPS that can show you down the road what detour to take and make sure you just don't get sick. Add some years to your life. Chronic sleep issues. This was unintentional by the way. There's no sleep genes, right? But when we were working with people clinically during our research phase, everyone kept saying their sleep was getting better.

I was like, what happened? And we started to reverse engineer the same neurochemicals that led to say, distractibility also disrupted people's sleep. The same neurochemicals that led to neurogenesis led to the circadian rhythm being broken and people can't fall asleep on time. So we made these correlations. So, sleep, immune system, health, detox, all that. And then hormones, which is probably one of the biggest un-actioned sort of systems that needs a lot of action, especially when it comes to women. And all this is then reformulated in the context of longevity. How do I take all this information, add 10, 15 years to my life, maybe 20 if I do everything right? So that's all at the dnacompany.com/model. And from there, I would argue you then know exactly how all the most important systems in your body work and how to always make the right choice and what would happen if you always made the right choice. Disease is optional at that point, right?

SHAWN STEVENSON: It's powerful. Man, this has been so awesome. Thank you so much for, I know it's been a lot to create what you have and to impact the people that you are impacting. You're one of my favorite people right now just to stay connected to and to, you know, really staying on top of the data, it's so cool because you know your background and your previous tendency was to be more kind of even keel. And now to see this passion activated in you like experientially, and to have a brother who's staying on top of the data and putting it in a way that people can understand, and especially with social media and things like that, being able to reach people where they are. It's really cool man. It's really, really powerful. And so, I highly recommend everybody checking out The DNA Way, go follow you on Instagram and of course go to the dnacompany.com/model. And man, just thank you so much for doing what you're doing, man.

KASHIF KHAN: Pleasure man. Thank you. Same thing. You know, you're, it's a platform for people to learn and improve their lives. This is what we need.

SHAWN STEVENSON: That's right. Yeah. I appreciate it, man. Thank you. Kashif Khan, everybody. Thank you so very much for tuning into the show today. I hope you got a lot of value out of this. Again, this is about empowerment. Learning how our environment obviously is having a huge impact on our health, on our bodies, on our experience of wellbeing, but also understanding that we have power to influence our environment, the world around us, absolutely, especially our microenvironment. But in particular, what can we do ourselves proactively to make ourselves more resilient in an environment that is very out of touch with what our genes are expecting. Good times are ahead if we make it so and so, taking this information, implying it in our own lives and also sharing it with the people that we care about is of the utmost importance. You could share this episode out with your friends and family on social media, of course.

You could take a screenshot of the episode and tag me, I'm at Shawn model and tag Kashif as well and just share the love that way. And of course, you could send us directly from the podcast app that you are listening on, that would be amazing. Just send it to somebody that you care about. Sharing is truly caring. And we've got some epic masterclasses and world class guests coming your way very, very soon. So make sure to stay tuned. Take care, have an amazing day and I'll talk with you soon. And for more after the show, make sure to head over to the modelhealthshow.com. That's where you can find all of the show notes. You can find transcriptions videos for each episode. And if you've got a comment, you can leave me a comment there as well. And please make sure to head over to iTunes and leave us a rating to let everybody know that the show is awesome. And I appreciate that so much and take care, I promise, to keep giving you more powerful, empowering, great content to help you transform your life. Thanks for tuning in.