THE MODEL HEALTH SHOW

EPISODE 893

What Your Doctor Isn't Telling You About Toxins, Autoimmunity, & Metabolism

With Guest Aly Cohen

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SHAWN STEVENSON: If you've ever wondered why cancer, autoimmune issues, or hormonal problems are skyrocketing across United States and really all over the world, this episode is going to shock you. Today we have one of the foremost experts in the world, a triple board certified physician who's affirming that everyday toxins in our homes, in our environment are harming our immune system. And she's also gonna talk about how to defend our bodies and our families against them. And what I love most about our special guests is that this is very practical. This can be a doom and gloom scenario once you find out how pervasive and how bad this situation looks. But the human body is so resilient and there's so many practical, simple things that we can do to remove some of these things, but also to help our bodies and our body's immaculate ability to detoxify nefarious compounds and to heal.

And so that's what it's all about as well, stacking conditions in our favor and knowing the practical things that we need to start doing on a regular basis to support our body's ability to detoxify. And again, this is coming through the lens of a triple board certified physician and rheumatologist specifically who specializes in autoimmune conditions. And not usefully using the term detoxify or detox, but really looking at the science and really what it means. And this being something that the human body is designed to do. This isn't a new thing, this isn't a new term. The human body and ourselves have been detoxifying themselves forever. Forever, in a day, forever in a day.

But today, to detox can be something very elaborate, very structured, very intentional, and also very effective. But for some people it can be very elusive and off-putting and too complex. And so we are boiling this down to simplicity today, providing some insights and tools. Number one, again, on how important this is for us to do right now, and also what we can do and what we must do so that we can protect ourselves and our families well into the future. Now, one of the things that my family has done, and also I just saw my wife's best friend, Jalisa, shout out to Jalisa. She's probably listening right now. I just saw a video of her using what I'm about to talk about. But one of the things that we've done to dramatically reduce our toxic load is to eliminate something that has been in truth, and I don't use this word lightly, has been poisoning people for decades.

One of the most notorious compounds in modern kitchens that is harming human health is derived from Teflon cookware, and it's a chemical called perfluorooctanoic acid or PFOA, and has been found repeatedly in peer reviewed studies to contribute to higher rates of infertility, liver disease, and a variety of cancers. For instance, a study published in the Journal of the National Cancer Institute concluded that PFOA is a strong kidney carcinogen with risk increasing in tandem with levels of exposure. And only recently has this compound been removed after decades of harming people's health. Only to replace it by the way of the makers of Teflon.

They replaced it with newer chemical compounds, newly invented chemical compounds like Gen X, which of course Gen X was found to be similarly toxic. And this is a coordinated data from the EPA. So that's this glorified game of sleight of hand that these industry giants are using. Just using some David Blaine tactics, you know, we'll remove this compound, but we'll come up with something that's equally as toxic instead of doing what is right. So breaking free from this nonsense. When it comes to our cookware, cooking is supposed to be one of the most health affirming things that we can do for ourselves and our family, and that's what my family has done and focused on and for safe, beautiful non-stick cookware. One of my all time favorite things and what I saw my wife's friend Jalisa cooking with is the cookware from our place.

It's non-toxic free from PFAS chemicals, AKA Forever Chemicals. It's ceramic coated and has over 75,005 star reviews on their award-winning cookware, pressure cookers and more. Just head over to fromourplace.com/model and you're gonna receive 10% off all of their cookware and appliances when you use the code model at checkout. That's fromourplace.com/model. That's F R O M O-U-R-P-L-A-C E.com/model. Use the code model at checkout for 10% off. And by the way, a little bonus tip, they've got some great bundles that have deeper discounts already and you can use this discount on top of that. So definitely check out their amazing cookware and appliances. Plus they have a 100 day risk-free trial, free shipping, and free returns. So you can give this gift to yourself and others with confidence. Head over to from our place.com/model. And now let's get to the special YouTube review of the week.

YOUTUBE REVIEW: Another YouTube review by At Born Player. One of my biggest goals in life is to go into my eighties and nineties strong, and not on any medication channels like these. Make that goal attainable for real, and it's greatly appreciated.

SHAWN STEVENSON: Thank you so much for sharing your voice over on the Model Health Show YouTube channel. It really does mean a lot and we're doing so much over on YouTube. So make sure to pop over to the Model Health Show, YouTube channel, subscribe. We've got some exclusive content we're making just for YouTube that's gonna blow your mind. And also, of course, you could see episodes of the show, these incredible interviews, and hang out in the studio with us. So again, pop over to YouTube, share your voice over there really does mean a lot. Without further ado, let's get to our special guest and topic of the day.

Dr. Aly Cohen is a triple board certified physician in rheumatology internal medicine and integrative medicine, and one of the country's leading medical and legal experts in environmental health. In addition to lecturing on environmental health at universities, medical schools, and physician training programs, she's on the faculty of the Academy of Integrative Health and Medicine, Southern California University of Health Sciences, and the University of California Irvine. Today, Dr. Cohen manages the smart human social media platform and podcasts and continues to see patients in her medical practice in Princeton, New Jersey, where she lives on a farm with her husband, two sons, and lots of furry friends. Let's dive into this conversation with the one and only Dr. Aly Cohen. Dr. Aly Cohen as a Triple Board certified physician, why are you so passionate about teaching people about toxins related to human health?

ALY COHEN: Because what we now know is when we make better choices, when we change certain aspects of our lifestyle that affect our DNA and all of the choices affect our health, our gut microbiome, we change the destiny of our health, and that is a fact. We now know this. And so I'm here to share with people what they can do to change their health outcomes, just through some very simple information.

SHAWN STEVENSON: So what are some of the things that, and again, this is gonna blow a lot of people's mind. Yeah. If people are wondering why rates of certain chronic diseases have

skyrocketed in recent years, you're going to get a huge illumination today, and I'm so grateful for this. But what are some of the issues that toxin exposure, again, something that is really, for many people, they don't even realize this is happening. We're just kind of swimming in this stuff. What are some of the health issues that this could be causing for people that they're not aware of?

ALY COHEN: Yeah, so what we're seeing at least is I'm a rheumatologist, so I've been dealing with the immune system, you know, and autoimmune diseases, immune disorders for 22 years. And what I'm seeing in the office, what I'm seeing on the ground floor is what's going on epidemiologically around the world, which is an epidemic of autoimmune and immune disorders. Just a couple numbers here. We have about 80 diagnosable western classified autoimmune diseases and that is likely to change over time, but essentially 80. And we now have between seven and 14% of the US population that has at least one autoimmune disorder. The number's expected to rise and 1% of the world population has rheumatoid arthritis. So it's not really because we're getting better at diagnosing, which is always sort of an argument, right?

When you have 15 minutes with your doctor in a current healthcare system, it's not really that easy to make diagnoses. It's not easy to get a history that really contributes to your story and then what you can intervene with. So I think we have to take it for what it is that we are now correlating this epidemic rise in chronic health diseases, chronic health issues, but also correlates with this enormous rise in our environmental chemicals that are harmful, that have been going on for a while and that are unregulated and not really tested for health and safety. So that's really where we're at in, in modern day time.

SHAWN STEVENSON: Alright, so again, rates of, and it's, it is just not better testing is not the only reason why, but rates of autoimmune issues have gone up precipitously in recent decades.

ALY COHEN: For sure.

SHAWN STEVENSON: And also the types.

ALY COHEN: Yeah.

SHAWN STEVENSON: The prevalence, the types.

ALY COHEN: And the age groups. So we're seeing even younger people experiencing some of these autoimmune diseases that you might not expect at younger ages. And what's so interesting also is that we're seeing these patients de novo without any family history. So a lot of people say, oh, you know, cousin Susie had lupus, or Bob had this and my cousin had that, maybe that's contributing. For sure there's a genetic predisposition, but what we're seeing mostly is de novo cases of rheumatoid lupus, Ms. Crohn's, ulcerative colitis, psoriatic arthritis, with no family history that would make you have that argument or really think that it's strictly just a genetic component.

SHAWN STEVENSON: Yeah. You mentioned DNA earlier. And just understanding and, and going back to, you know, high school biology college. Uh, DNA to RNA to protein and understanding that what's getting printed out of us, you know, the cells are getting printed out, are being influenced by these epigenetic controllers above all of that, right? So our genes have the blueprint, right? So we have these genetic factors. But these epigenetic exposures and specifically ones that humans have never been exposed to before, ever in our history, and now we have. Not one, not a hundred, not a thousand, but thousands of newly invented chemicals. Can you talk about the current landscape with our chemical exposure?

ALY COHEN: So your point was really well taken there. So we have a genetic template, but the proteins that really sit on top of our genes that either allow or don't allow gene expression that is modifiable by your lifestyle. And that includes sleep and stress reduction and getting, you know, stopping smoking and exercise and all of those things. But it also includes environmental chemicals that we're now all exposed to in pretty much every aspect of our lives. And so really, if you wanna think about controlling your future health and how that's going to roll out, not just for your own body, but even successive generations.

You really wanna be thinking about how you can intervene. And the area of environmental health and chemicals that we're talking about is one really powerful area where we can

intervene to change that epigenetic expression or the DNA expression because we know that that's something, that's a part of the, there's several mechanisms, but definitely part of the potential mechanisms of how these autoimmune diseases are becoming so prevalent.

SHAWN STEVENSON: So what are we dealing with? How many chemicals are we talking about here?

ALY COHEN: We have about, I mean, look, the number keeps growing. Since World War II around the 1940s and fifties is when it really shot up, right? We had rayon and naugahyde and formaldehyde and, you know, formica and pesticides and things that we used during wartime. We had chemicals that exploded to, you know, work on crops and pesticides for food overseas. We had pesticides to prevent the soldiers from getting infectious diseases. So a lot happened over wartime. The problem is we now have such an unlimited amount. It's pretty much 95,000 is about the working number, but people estimate more and those are chemicals that are created for, again, all sorts of functions, uses, you know, coloring for food and food additives.

There's about 12,000 of those. We have chemicals that are used in solvents and building materials, so there's such a plethora. We have pretty much around 15 to 20 new polymers that are patented every week. We have over a thousand new compounds that come to market every year and something like bisphenol A or BPA has somewhere between 45 billion pounds per year come in and out, you know, basically exported and brought into the United States for all the products that are being used with BPA, so and Bisphenol. So, you know, it's something that's not going to go away anytime soon. There's no regulation at this point or in the past to really make manufacturers test these ingredients and these chemicals before they go into the products that we use and we love. And so it's really kind of up to us to do the work, but it's not a lot of work, but it's being thoughtful about the work.

SHAWN STEVENSON: Yeah. You know, one of the things that I really resonated with in studying you and your work was that this is not a, you know, run for your life type of scenario. You know, we're all kind of existing here in this glorified snow globe, and we are all exposed to a lot of things, but the human body is resilient. And also there are simple, smarter choices

that we can make to reduce our toxin exposure. And we're gonna talk about that of course. But what I really wanna do is, because there's so many people that are experiencing health issues and they are struggling and they want to feel better, and they're just looking for answers, and they've tried this thing, tried that thing, and they have no idea that, you know, a certain conglomeration of chemicals that maybe it's making its way into their home via some products that they're buying. Maybe it's in their water. I want to illuminate, you mentioned autoimmunity. What are some of the other conditions that could be impacted by people's toxin exposure?

ALY COHEN: You know, I talk about cases in the book that I think people will resonate with a lot of readers because that was the point is talking about my patients and what we've done to help fix their health issues. But it can be as vague or as varied as fatigue or as abdominal pain or as rashes. You know, a lot of people are experiencing a lot of things that don't necessarily constitute as a formal diagnosis of a disease, but they have symptoms that are making their lives uncomfortable or not living to their full potential, whether it's energy wise or it's GI function or have you, there's a variety of things, but what I think is interesting is that in order to deduce from this very big topic, and it is a very big topic, navigating environmental health in these kind of chemical exposures really kind of requires a paradigm.

And I had to come up with a paradigm because I teach physicians that are looking for this information. Three programs now that did not get this information, by the way, in medical school and high school and college students. And so the paradigm that I came up with, which was trying to really help people wrap their head around the topic is the four A's. And so the four a's really starts with assess. You need to know what you're exposed to. We have a 50 question survey with numbers where you can actually add up kind of where you are starting from on this journey. So assessing is really basic and important. The second A is avoid or swap. So knowing what you're exposed to, you can make decisions whether or not you need 20 different cleaners for your kitchen.

A kitchen sink cleaner, you know, a carpet cleaner, a surface cleaner, a window cleaner. I mean, a lot of that's marketing. A lot of that is not necessary and can really reduce your exposures by just lowering the numbers and a swap for people who really just want to find something

they like in a safer form. The third A is add. Because it's not just enough for my research and what's out there to just remove these triggers or remove these chemicals. You have to add things into the human body, into the human existence that has been part of our lives for millions of years. Like exercise and sweating like proper sleeps to clean our brains, you know, via the, the glymphatic system, which is the fluid around our brains and our spinal cord.

And while we sleep, we're doing a pretty good job of washing out some of the most harmful chemicals while we sleep. And things like clean drinking water, good quality food, and understanding the quality matters over often the macros of food and we can talk about that. So adding in chemical, you know, behaviors and nutrition. Nutrition, there's nutrients that we now know offset some of that DNA methylation and his stone changes from the epigenetic changes we're seeing from exposures. And the last A, which I think is really quite important. And maybe my excuse is allow, you know, we have to allow, life is a journey. Life is fluid. I color my hair, my boys play lacrosse on pretty toxic sports turf, you know, many days a week. It's the birthday parties, it's eating the cake, it's traveling. I think if you don't have that fourth A the allow, it doesn't allow people to just kind of start the journey and keep with it. So that was the paradigm, and I think that may be helpful to your audience.

SHAWN STEVENSON: Yeah, I, I love that. I love that. Especially again, that last really is what resonated with me because a lot of people are getting the feeling like everything's toxic, everything's wrong, I can't eat anything. And before you know it, if you are really trying to abide by everything, you are the boy in the plastic bubble. Did you see that movie, John Malta?

ALY COHEN: Oh yeah. I'm old enough to know about that. You just aged me. But yeah, look, I went through a 15 year journey since I began this process, you know, with, you know. Very sad story in the beginning. And how I got into this was my dog got sick and I had to kind of explore how he got sick at such a young age with an autoimmune disease. And I was really, 15 years ago at that time, I didn't know anything about environmental chemicals. I just was heartbroken. Yeah. And so I started to explore, you know, what could have made this dog sick, this golden retriever.

SHAWN STEVENSON: Four years old Truxon. Right?

ALY COHEN: I was four, four and a half Sir Commodore Truxton. And you know, when I looked at his dog food and his water quality and the red toy that was made of vinyl that he sucked on, it's very popular dog toy. You know, I was looking at flea and tick collar chemicals. I, I looked at everything. That was actually an environmental health survey that I was performing. And as my years went on where I was trying to study, is this true? There's no regulation. Is this true? We have all of these thousands of chemicals grandfathered in without required testing from the seventies and even beyond.

You know, as I layered those in and questioned and read the material and understood, you know, the science, it really kind of, I was at first on the ledge freaked out, so to speak, and I've since come down to earth where I feel like we should all be able to do this with least amount of stress that we can do it with. But it's a journey for everybody. It's just, I wanna make it a journey that people have material beyond waiting 15 years to learn it themselves. But it is, it's an area where you can freak out and from health coaching, you know, that creates resistance or that you could kind of take a deep breath and say, I'm gonna jump into this in a way that's reasonable and practical.

SHAWN STEVENSON: Yeah. Reading the story and, that, I mean, it was very emotional, just even reading it. And you have a picture as well.

ALY COHEN: I know. I know.

SHAWN STEVENSON: So, oh my gosh. Such a, a, a beautiful, like you could see the spirit and, you know, sometimes the most challenging things that we go through are creating and opening doors and capacities that we don't even know are there. And without that experience, you wouldn't be here illuminating and helping so many people to solve health issues that they don't even know are going on. And one of the things that jumped right out to me, you know, you were mentioning is there's a red toy. And you were looking at everything. Dog food, everything.

ALY COHEN: Yeah. Everything.

SHAWN STEVENSON: And but that red toy, obviously the FDA has recently banned red dye, which is used in a ton of different products. And if we think about, okay, because Truxton was dealing with in particular was the liver impact. And the liver is dealing with so much of the toxicity in our world, it is responsible for metabolism of toxins. It's like its main job. Right? Yeah. And it just reminded me to look at this and all the different things that it can impact. Because this was even dating back to 1997, by the way, 1997. This study I'm gonna share. So this was published in the Journal Environmental Health Perspectives. The title of this study was Estrogenic and DNA, damaging Activity of Red Number Three in Human Breast Cancer Cells, by the way, because why it was taking so long to ban it was, is Oh, it's harmful in animal studies.

It's causing cancer in animals, right? And so this was back in 19, 1997. But one of the things that you just brought up, and also I wanted to reiterate, there's thousands of these dyes, right? It's just like they're just checking off one and share this with you really quickly. Because for me it's like, that's red dye number three. What happened? Number one, what happened at two Red? Number one was banned in 1961 after it was discovered. That it caused liver cancer. Red dye number two was banned by the FDA in 1976 after it was linked to cancer. Red dye number four, banned by the FDA in 76 because high levels, and I wanna, this is what I wanna ask you about. High levels of the dye was found to quote, damage adrenal cortex in animals. So when you hear something like this, it's just like, oh, it's a little bit of die maybe in a toy. But it's this concept of the dose makes the poison. Right. Is that always the case?

ALY COHEN: No. Great question. And so, and when you are talking about the red dye, it's funny you say that because in addition to what you're finding about, say, a toy that has, and by the way, these are animals that have no testing for their products at all, let alone the dyes that humans at least have some early studies as you're pointing to. It was the vinyl chloride, the sort of the polyvinyl chloride plastic that when I researched this back in the day for this dog and I have, we all have access to pep pub med.gov, which is basically the way to find journal articles like you did medical journal articles, right? And when I looked at that, it turned out that there was a history of autoimmune liver cancer and autoimmune liver

diseases amongst workers that worked in polyvinyl chloride plants that make these chemicals, that use these chemicals.

And so it really made me focus, you know, again. Life is about lots of different inputs. You know, it could have been some of his water, it could have been some of his food issues. But, you know, when you think about someone, a, a dog having a toy in their mucus membranes, which is so absorbent, I say this about literally young women and vaginal canal, the tissue of that area is why we use drugs, estradiol in those areas, right? Because they absorb really quickly. But so too does it also absorb chemicals that we're exposed to, especially synthetic compounds. And so, you know, when I think about this dog as I described, having this toy in his mouth round the clock for four and a half years of his life, even while he slept, you know, you start to think about whether or not that exposure, let alone the dye, it's the plastics as well.

So it, it elicits something, you know, where we're full of mixtures of chemicals. Yeah. You know, we're getting those chemicals not just from one chemical or two, you know, we're getting thousands of chemicals in our bodies. The goal is to say, let's not test for all of them. You know, because at any given moment, for instance, you can have any number that either break down shortly or have a longer half life, you know, some that you're not exposed to 'cause you went out of town or what have you. The goal is to just really be conscious of what your regular habits are, what your regular inputs are in terms of food quality, water quality, and work on those issues as much as you can. Because again, it's a big topic we're exposed, we just have to think about what's a really practical way to hit this issue.

SHAWN STEVENSON: Yeah. So you are talking about, and there's different names for this, but it's an entourage effect.

ALY COHEN: Yeah. Or mixtures. Yeah. They call mixture studies and it's this idea, and you could argue also with medications. I mean, when you're taking one medication.

SHAWN STEVENSON: PolyPharmacy. Yeah.

ALY COHEN: Yeah. Polypharmacy, when you're studying, wanna make one medication and the FDA does an approval. It's not looking at a human body being exposed to what most people are. You know, using, which is probably multiple chemicals in any given time, especially as you're getting older you's much higher rate of polypharmacy. But then you add some of the chemicals that have their own known chemistry, right? That's where you're starting to get sort of a mixture of soup of chemistry in your body. So yeah, it's a tricky thing. Humans are hard to study. Animals are much easier to study. 'cause you can control some of these exposures by far. You can even manipulate genes to make them either predisposed to developing an autoimmune disease and test chemicals to see how that works.

So there's lots we can do in labs that I think is really important when it comes to messaging like the work I do, because we don't always have hard and fast evidence-based science for direct connections between a chemical and a human health issue. What we know is we put it all together and we use what's called the precautionary principle to think about all the evidence that exists in those studies on mice or occupational studies. The chamacos study in California is looking at migrant farmers, you know, and their families and how their bodies are responding to being exposed to pesticides. So you put all that together, you make smart decisions, and that's kind of really how things work, really for humans.

SHAWN STEVENSON: You mentioned earlier that a lot of these compounds are not tested. Right? So we've got thousands that are not tested. So I want to ask you about how that's possible, number one. And also you mentioned that these studies are not showing how these things are affecting us, in particular with humans, but let alone animals in combination. So most studies that are done, the few that are. You know, again, percentage wise, they're done in isolation. Right? Yeah. So looking at an isolated chemical and its effects and not how it's working with all these other different chemicals.

ALY COHEN: Right.

SHAWN STEVENSON: And so how is it possible that thousands of newly invented chemicals that are affecting human health, without a doubt, are just legal to put out here in the atmosphere?

ALY COHEN: Well, it turns out when you don't start off with great legislation in the 1930s and the 1950s, it's very hard to implement manufacturing, to be required to do the testing that we now know they should do. It's like putting the genie back in the bottle. So, you know, for instance, in the food system, the 1958 Food additives amendment was really supposed to reign in some of the health, you know, the testing that was required to ensure that these food additives, whether it's for taste or for preservatives or for colors or for crunch, or any other things that are added, whether they were safe before putting into food products. And it's failed tremendously because they basically harness what's called the generally recognized as safe designation which allowed manufacturers to just hand in whatever.

SHAWN STEVENSON: Right.

ALY COHEN: Any research they did, if they did any at all, and say, okay, this is, we think this is good enough. You know, we think this is safe. So this grass generally recognizes safe designation has gotten us into a lot of problems because it's. Allowed thousands of chemicals to enter the food system. And in food packaging, by mind you, so, you know, this has been the problem for a long time. In 1976 there was something called tosca, the Toxic Substance Control Act, which made an attempt to reign these chemicals in, but it failed. And so we've really, and they tried to reopen this discussion in 2016. So we've had a long history of failure when it comes to requiring these chemicals, you know, to really be tested for health effects. And you mentioned, you know, the dose makes the poison. I wanted to say a little bit about how many of the chemicals we're discussing, have thrown science on its head.

Classical toxicology, which is dose makes the poison, which is from Paracelsus in the 15 hundreds. Essentially, what we'd think of is the more the exposure, the more the physiologic change for good or bad. Right. You know, the higher the, I look at it like, you know, you go drinking and you get sick, the more alcohol you drink, right? So the dose makes the poison you get sick from something that you're adding into your system. Well, it turns out that many of the chemicals that were identified as problematic to human health are falling something called non monotonic dose response, which essentially means that we are now able to figure out at very, very, very tiny doses like.

Parts per million parts per billion and parts per trillion. Tiny, tiny amounts similar to hormones in the way they work in the human body, that these chemicals can do similar things. They can mimic how hormones work, which is you only need a teeny tiny amount to do very big physiologic activity. And that kind of, instead of like a linear curve, it looks like a U or an upside down U meaning you know, the dose really at low doses can have huge effects, which no one bothered to test it before 'cause they were going for the high dose exposures. When that occurred in science, it really flipped. The science world on its head. It showed us that we really do need to pay more attention to how these chemicals work because they can modify how our hormones work and speak and signal around the human body for growth and development, insulin production and usage, fertility, brain development and utero.

Male and female genitalia in utero. You know, so there was a lot that we now discovered that had to be kind of relearned, unlearned, and relearned. And then from an immune system perspective, which is what I'm trying to also focus on, and calling these chemicals, immune disrupting chemicals, not just endocrine disrupting chemicals or EDCs, we can see that they also have immune system effects and that systems talk to each other. There's lots of crosstalk between our immune system and our endocrine system. So, long story short, we know to focus now on, I say we, researchers, not manufacturers, who are doing this beautiful work on seeing how low doses affect human health and really giving pause to our exposures and where we can cut them off really.

SHAWN STEVENSON: Yeah. This is, all right, at this point. It should be captain obvious that there's this crosstalk. It's all existing in one human entity.

ALY COHEN: Yeah, sure.

SHAWN STEVENSON: But you know this better than most triple board certified physician. Our education is largely compartmentalized, right. So much is separating the body into these different specialties and not understanding truly, when you're looking at your patient, everything is working together.

ALY COHEN: For sure.

SHAWN STEVENSON: Right. And so talking about these exposures impacting in particular, what's happening with our immune system, and what's happening with our endocrine system. These two amazing systems and super intelligent systems are impacting every aspect of our health, right?

ALY COHEN: Correct.

SHAWN STEVENSON: And so with this being said, this is why we know and why your work is affirming this, that this isn't just an issue of, you know, having some allergies for example, or you know, some small autoimmune conditions. We talking about some severe issues that can arise cancers and if we just look at the results going on and I'm a big fan of just like look at what's happening.

ALY COHEN: Yeah. Sit back in perspective on this big picture issue.

SHAWN STEVENSON: Cancer has gone up precipitously, certain types of cancers in particular in populations.

ALY COHEN: And younger age, your family history.

SHAWN STEVENSON: Right. And also obesity as well has skyrocketed. And we again attribute that to one very vanilla thing, right. People are eating more and moving less.

ALY COHEN: Right.

SHAWN STEVENSON: And now we know we have this wonderful category, this label that we put on them as obesogens.

ALY COHEN: Correct.

SHAWN STEVENSON: Some of these chemicals that are obesity causing agents that are epi caloric, right? They're above the calorie control and influencing how our body is managing fat storage.

ALY COHEN: Fat storage, and also how stem cells that come from our bone marrow, what they turn into, whether they turn into platelets or red blood cells, they actually turn into adipose sites. So, you know, and BPA, for example, was another chemical that one of the first endocrine disrupting chemicals by the way that's so well studied, that has both endocrine and immune system effects. BPA was found to turn off what's called adiponectin, which changes how fat cells are developing. So, no, no doubt about it. There are now properties amongst many of these endocrine disrupting chemicals that really do help. You know, keep us fat or, you know, in many ways make us fat. So it's not just about how many calories in, calories out, as you know, and we're, we're missing a big piece of the chemistry that's going on in our bodies, even at the cellular level.

Yeah. That we can really have, make a dent in. We can really help to curve how these processes go. But you're absolutely right, how we categorize them is often many of these chemicals by what function, what harm they cause, right? Neurotoxins, liver toxins, obesogens, they're also categorized by their own function are they stain proof chemicals? Are they non-stick chemicals? Are they waterproofing chemicals? Are they solvents? Are they emulsifiers? So I think because it's such a big topic, I like to break it down into things that affect our, you know, our walking through life. You know, what do we put on our body? What do we put in our body? What does drinking, water, food, personal care, all of those air quality. All those are tangible for the average person, right, including myself. Those are tangible, and that's a good place to start is working through those areas as opposed to becoming a toxicologist.

SHAWN STEVENSON: Mm-hmm. Got a quick break coming up. We'll be right back.

How can we get our kids off of all this crazy ultrapro food consumption? Well, the great step in doing this is changing up what our kids are drinking. Our kids' drinks are a fast delivery system for the good stuff or the not so good stuff. And I grew up, if you grew up much like me drinking Capri Suns fruit punch, all manner of soda, the off-brand stuff and the expensive stuff, Dr. Pepper is not a doctor, all right? Grew up drinking all of that stuff. And of course, just flooding my body with high levels of blood, glucose and insulin in all manner of ultra

processed, newly invented chemicals. And so being able to switch up what our kids are drinking, provide our kids, some healthy beverages, can be a game changer.

And my friends that identify our dedicated to this mission too, they've got a new special superfood blend just for kids. It's called Organifi Kids Easy Greens and it's providing our kids with some of the most micronutrient, dense superfoods ever discovered, including Maringa, spinach, carrot, coconut water and more, and it's in a tasty flavor just for kids. The reviews for identified kids, easy greens are off the charts, so kids are loving it and parents are loving it as well. You're getting a micronutrient blend with a sweet apple taste that kids enjoy probiotics and enzymes for optimal absorption. And of course, it's organic and free from fillers and additives. Head over to organifi.com/model and you're gonna get 20% off their Organifi Kids Easy Greens, and also the Organifi Red Juice blend, and just storewide any of their incredible organic blends. Again, go to organifi.com/model for 20% off. And now back to the show.

SHAWN STEVENSON: I want to ask you a specific question about what you do, which I'm gonna do that in just a moment, but just to lean into this point one more time and something that you brought up. So again, with the chemistry of some of these new compounds, fat cells, you know, they, they could be lipophilic, right. And so just attracted and taking up shop in our fat cells and we're gonna talk about some things we could do to detoxify as well. But also you mentioned fertility. Yeah. Because when I think of body fat, like this is all in that equation.

ALY COHEN: Anthropology.

SHAWN STEVENSON: With fertility, and with growth and development as well.

ALY COHEN: Yeah.

SHAWN STEVENSON: So what's going on with, for example, growth and development of our kids, is this toxin exposure in the modern life affecting things like the maturing of our kids and growth and development.

ALY COHEN: Well, yeah. So we're now seeing that, you know, there are certain periods of human development that are very vulnerable.

Let's start with that, right? And most of us would pick, okay, pregnancy, right? That's a vulnerable period for a fetus, right? We think about, you know, fetal alcohol syndrome and anything that you can think of smoking during pregnancy, but we should probably consider very strongly about also environmental chemicals. And it's never to blame moms. I'm never gonna do that because look, I, I had two kids and didn't know a darn thing about any of this stuff. So I think when you know better, you do better. But the idea is that, and spouses and partners can certainly participate, not even if they're carrying a fetus, but those periods that are very vulnerable to environmental exposures and also to development.

So you have the in utero fetal development. You have children that are young, they don't have yet developed their detoxification systems. Their livers don't work at the level of an adult. They also have very narrow diets, which are really important to that add paradigm where you nutrients can offset these exposures, but they're not eating broccoli and kale. You know, they're eating, you know, chopped up baby food and maybe breast milk. So the idea is that those periods, plus teenage years, I have two teenage boys. Lots of hormonal change, lots of ups and downs, right? That's a window where some of these exposures could have greater harm. And the argument is, and I did a TED talk on this because I, I researched high school students, you know, and I wanted to know what, what did they want this information?

What do they know about environmental health? By the way, teenagers use the most personal care products per 24 hour period than any other demographic. So when you have this, you know, vulnerable period of development, lots of flux of hormones, you know, that we all are aware of, and then you have these potential influx of a lot of chemicals that don't compare to even adults or you know, to men and women who use products. That's potentially where you can see some additional changes for their fertility risk, for their cancer risk, for things down the line. Menopause too. We don't think much about menopause in terms of a flux of hormones other than just kind of losing estrogen.

But in fact, that change period is also considered another vulnerable period of human development. And so overall, we don't wanna be exposed. Period. Right. Who are you kidding? Right? Any period of life. But those particular stages are considered more vulnerable and I think we need to be training ob GYNs and obstetrician gynecologists and healthcare

providers. We need to be giving them an idea of how important this conversation is for people who want to have kids potentially in their future. But we also wanna be thinking about going direct to young people. One of the areas that I'm always interested in, and what I hope to get into more in terms of education, is getting a curriculum into high schools nationally that helps young people navigate how to look up their makeup and personal care products.

I make my kids do it and I do it with my students very easy with very simple apps, but also they are going to formulate their behaviors for the rest of their lives. It's a great time to get those changes in and have them be able to work through those choices, and they may have kids one day. So you're setting them up for success in a different way than academics, than other things. You're setting them up for health optimization really. And it starts young.

SHAWN STEVENSON: Yeah. And so is this something that we can definitively say, we know that puberty is happening younger.

ALY COHEN: For sure. And it's a great point you're making. So that exactly is one of the ways we're seeing a change during those vulnerable periods. It used to be a couple hundred years ago that women for instance, would start their period or monarchy at say 16 years of age. We're seeing it now starting in young girls as early as eight and nine years old. Boys too have shifted their puberty earlier as well, and it's really believed to be largely in part due to the chemicals that are in products that they are particularly anxious to use. Also diet in terms of processed foods, and those chemicals, and they can mimic growth hormone, they can disrupt normal physiology.

And they mimic androgens or they can block androgens and they can also mimic estrogens like estrogen itself. Also thyroid conditions very rampant and almost epidemic really in young people and teenagers because in that situation, it's not just environmental chemicals that have a, a strong affinity for thyroid gland, but it's lack of iodine. It's lack of a nutritional component that has been part of our human existence for millions of years that we're just not getting enough of. So I look at this conversation of iodine as a really specific but interesting example of what we're doing. We're having chemicals that attach to the thyroid. We have lack of protection from nutrition, and that causes disruption and potentially health

issues. But we can reverse all of that. We can reverse all of that by being conscious of nutrition and getting rid of those chemicals and really changing thyroid health.

SHAWN STEVENSON: Yeah. What's one product that's in most homes that you refuse to use and why?

ALY COHEN: Air freshener. Candles. Incense, things that are unregulated. Lots of phthalates are essentially the main, or one of the main chemical groups that are used to make fragrance last longer. And it's just so easy to fix. It's, you know, I remember the day I even wrote about it in the book. I remember the day that I took an entire drawer of plugin, air fresheners. They were like ocean breeze and, you know, sunset Hills and, you know, it was pumpkin spice and things for the holidays. And I remember taking the entire drawer, which had made me so happy, right.

And I just dumped it all once I really knew, you know, the chemicals that hide within fragrance and perfume. And that goes with cleaning products too. There's so many ways to just simply be aware and choose better. So I think that's probably the easiest is, you know, not bringing these products into your home. Where they reside and end up being testable and blood and urine and in your body, so, right. It just makes a lot of sense to cut off that, that line of exposure.

SHAWN STEVENSON: Yeah. And this is factual. This is just a big wake up call for us that, you know, we are interacting with these things. Yeah. And it is literally showing up in our urine and our blood.

ALY COHEN: Correct.

SHAWN STEVENSON: And so if you're breathing something, yeah. It's in, literally in your body.

ALY COHEN: Like oxygen, right? You breathe oxygen, it's in your system. Well, anything that air carries, including, you know, PM or particulate matter 2.5, which is really. Particles in the air that you can't see, and that includes chemicals, but it includes smoking chemicals or vaping chemicals. It includes ozone, you know, it includes things that you can't always control

What I ask people to think about is look at what you can control. Look at your home. Look at where you create a, a home and a nest where you have, you know, ways to control water quality when it hits your home and you put it in your glass.

What you buy for products in terms of your food, what you clean your home with, because those chemicals will aerate into the air, but they'll also land on surfaces and make their way into dust, which has been very well studied as one of the biggest collections of household chemicals that are harmful to the human body is in dust. And who's on the floor by the way? Kids. Handout behavior, pets, you know, licking their paws. So thinking about how to just cut off the, we, you know, the, the input I think is really important. And, you know, just, just like I said, choosing better and slowly but surely, it's a process, but slowly sure. You, you get better and better at it. It's like gamifying, you can get better and better at it.

SHAWN STEVENSON: Yeah. And this book truly, and we were talking about this before the show, you know, this is that statement. There's nothing more powerful than an idea whose time has come. You have the guide on this subject matter in this book form that's never been shared before. And coming from somebody with such esteem and who's been in this field and studying this stuff and really has truly definitive answers. Like we, this is not a question anymore. This is harming us, right? And so what are some of those big players? You're pointing those things out for us so we become aware, but also talking about what to add in.

ALY COHEN: Oh yeah.

SHAWN STEVENSON: And what we can do to detoxify. And so that's what I want to talk about now because the truth is all of us, everybody listening, we've got a lot of these newly invented compounds that are making their way in and on our bodies. And the human body is incredibly resilient though. And there are certain things we can do to help our bodies to detoxify.

ALY COHEN: For sure.

SHAWN STEVENSON: So let's talk about some of those things.

ALY COHEN: Yeah. I mean, our bodies are amazing. I wouldn't have gone into medicine if I didn't think the body was pretty incredible. My dad's a doctor. I mean my, it's just I wanted to know physiology and I think. You know, also learning anthropology and, and evolution and how long we've been on the, on the earth and what our bodies have needed for a very long time to thrive all the way at the cellular level. Our bodies are made up of 85 to 90% water, so we really kind of can think about, well, if where bodies are made up of water, we run on water, should we get that right? You know, should we really be thinking about that? Because if you're going to wash your body through and help it detoxify, you don't wanna start with dirty water, right?

So one of the most important things I talk about is getting your water source. You know, as best you can to be cleaned up. And that allows your kidneys, which is a detoxifying organ, your liver to get flushed with blood with the water in your blood that is going to help your liver actually do its job and break down many chemicals and to help eliminate them. But we also have skin, right? Our skin is a remarkably incredible organ. It's the largest in the body. And the skin is able to sweat out many of the chemicals. It's, it's difficult because no one puts a lot of money into the studies that I think are so critical to studying sweat from a chemical perspective as much as I think they should.

But we have a lot of information to show that sweating is critical to really getting rid of toxins just like the kidneys in the liver. So, thinking about what we put into our body, how we wash it through thinking about the gut microbiome, which is an incredible amount of science that has, I'm sure you've talked about it before, 26 feet of bowel and it's a gut tube, essentially. The interior lining is the microbiome. It's filled with microbes that have been with us a very long time. They respond to foods we eat, whether it's pesticide foods, you know, they kill bugs in the field. Why wouldn't they knock off some good guys in the gut? Right? So thinking about food quality for the gut and, you know, chlorinated drinking water, things that are in water, like I said, so.

I think when we think about detoxifying, a lot of people get into their mind that they have to do a cleanse, they have to do some kind of Hy Colon, they have to do, you know, a lot of, I think extreme things. My argument and what I talk about in the book is that we can harness

our own physiology, our beautiful physiology, to really eliminate many of these chemicals. And I say that with patients that are in the book, and how we worked through that. But anyone could really jump on board knowing how our body does such a great job of this.

SHAWN STEVENSON: Yeah. You mentioned the first thing you said was to get our water right. And it makes sense because again, we're mostly water. So what do you mean by that? Like, what are some of the things we should be doing when it comes to water?

ALY COHEN: So, a whole chapter on water, because I talk also about bottled water and choices that we don't always, you know, we don't always have access to our home filter, that type of thing. But when I think about water, I think it's one of the most underestimated, you know, underemphasized, you know, contributor to human health that people are not thinking about. So many books on diet, macros and which diet to be on and that kind of thing. But no one really talks a lot about water quality aside from hydration. And I think if people were aware, and I'll share this with them now, that across the US 85% of the US population is served by what we call wastewater treatment plants.

In other words, water in our environment goes through lakes and streams and aquifers are underneath the ground. Mountaintops all feed into wastewater treatment plants, and there's 160,000 of them in the US, across the US that serves 85% of the US populations drinking water. The other 15% is wells, you know, either their own personal well at their home or their town. Well, a lot of rural areas, but under the Safe Drinking Water Act from 1974. Okay, we're talking 50 years ago. There's one law that basically talks about how there's only 91 chemicals mandated to be measured and remediated or fixed, if it goes too high in all of these 160,000 wastewater treatment plants.

So in other words, we're living in a world now that we have thousands of chemicals that can get into our water lakes streams, sewage turns into drinking water. Talk about a shocker, right? And it goes through these plants, but it's only cleaned off of essentially to a certain level, 91 chemicals. And knowing that information and seeing some of the images that I've posted on social media of my water, change out filtration makes really good sense. It makes really good sense. And it's not to say that everyone has to have the top of the line, the

expensive whole house filtration. I actually discourage that 'cause I want people to use their money wisely. But you can use any filter, which would be better than nothing, whether it's a pitcher, which is a carbon block or a refrigerator door is a carbon block.

It's like water runs through it pretty quickly so it doesn't take as much off as it could. And then all the way up through something called reverse osmosis, which is a material that is so tightly woven, it catches everything that's bigger than even like a virus or bacteria. So the idea is that you can choose whatever you want now and that even the price point of reverse osmosis has come down so dramatically that they're like $275. And you can put one under your sink with a plumber for $150 doing it in one hour. And that's pretty easy 'cause then you don't have to keep filling it up. But the idea is, I talk through some of these ideas and options and filtering your water I think is probably the easiest thing to do once you get through just making the decision. And it has so much of the highest yield health effects in terms of detoxifying and just washing through our system for sure.

SHAWN STEVENSON: Yeah. Just start with anything.

ALY COHEN: Yeah. Start with anything.

SHAWN STEVENSON: You know, some kind of filter.

ALY COHEN: There's nothing wrong. Exactly.

SHAWN STEVENSON: If you don't use a filter, you become the filter.

ALY COHEN: Yeah. It's really true. You're exposing your body and I think it's one of the most reasonable ways to start and it certainly is you walk through it very simply in the book.

SHAWN STEVENSON: Yeah, I love that. And again, this is a high leverage and also water's gonna help with detoxification.

ALY COHEN: For sure.

SHAWN STEVENSON: Right. Again, it's just one of those things that's overlooked because it's not so. Complicated and harsh and, and you know, but your body is constantly in your intelligent, yeah. Your body's going to choose, you know, when this clean, fresh water comes in, it ramps everything up and this is why our metabolic rate changes when we drink water. It's not just from our bodies like warming the water up, it's because processes ramp up and your body can help to eliminate metabolic waste and just kind of clean house.

ALY COHEN: Absolutely. And our water, interesting, fun fact, and I mentioned, my dad's a doctor, he's a kidney specialist. In the 1970s when dialysis was first really invented and brought to everyday people, I mean, we sort of forget, I'm, I'm older, but I dunno how much older, but you know, the idea that we really never had kidney machines. That helped people who had kidney failure was really, it's pretty recent. It's only 50 years old, but they were mandated at the start of dialysis development to use reverse osmosis water. And the tanks are floor to ceiling. They're huge tanks. And they were only designed to use reverse osmosis in order to protect these patients who are immune compromised from viruses and bacteria and infection.

Well, it turns out 50 years later, they're also able to catch all the bigger compounds that were developed later. And, but those machines now have come down in such price points as I mentioned, that everyone, it's like democratizing, you know, clean water and clean food is a real issue and we can do it now because of price points.

SHAWN STEVENSON: Yeah, that's so true. It's changed a lot. There's a video of me, it's almost 20 years old on YouTube of me talking about this issue. Yeah. You know, and talking about water and. Also municipal water, which, you know, the particulate matter, I was like talking about the toilet paper and you know, these different drugs that people are taking and they're pissing and pooping.

ALY COHEN: And finding it in water systems. Yeah.

SHAWN STEVENSON: And finding, you know, there's.

ALY COHEN: And that's because they're not being, man, you know, there's no infrastructure to, there's no regulation, no law, but there's actually no chemistry to do that in such big water systems, you know? Yeah. And so it's up to us, you know, this is the issue. It's like you can wait for legislation to change Red dye number three. Some of the per Fluor als have been added to, you know, six of 'em to a list to put on that 91 chemicals list. But there's 15,000 per Flo Fluor als. We're just looking at six to add to the list. The idea is that we need to kind of do this for ourselves. You cannot wait to be saved or to other people to regulate. And that's one of the big turning points I think when people hear this topic. We kind of have to think about it for ourselves. We don't have to go nuts. But we wanna start thinking about it.

SHAWN STEVENSON: That's, that's what it's all about. Yeah. You know, and be empowered, right? And just making smart decisions and you know, again, with this water topic is, it's so important. And it's never been easier because again, price points come down with RO systems also, there's a lot of access is super popular now with getting your water from, you know, bottling, glass and things like that.

ALY COHEN: Sure.

SHAWN STEVENSON: So whatever fits your medium, but I want to encourage people and also your work. I've seeing you reiterate this point, we don't have to be neurotic. No. If you have some water that's in a plastic bottle every now and then, but what are you choosing to do most often?

ALY COHEN: Yeah, absolutely. And I will make a point about choosing plastic bottles. 'cause here I traveled to get out here and you, you don't always have access of course to filters. So even choosing plastic water bottles, you know, you're not necessarily gonna cut back on microplastics, right? We know that's a whole nother topic. But glass and stainless steel is a way to reduce those and as well. But when you're choosing even plastic water bottles in between life and filtration, whatever, you can even look for the word ingredients on water bottles and it'll tell you how that water was cleaned.

It's either gonna be usually distilled, you know, cleaned by distillation or cleaned by reverse osmosis. So choose reverse osmosis 'cause that's the more aggressive way to clean water. And there's a choice that you can make now when you're traveling and you're on the go. It's having that power to make those choices that I think is really so great.

SHAWN STEVENSON: Now you mentioned also sweating. Yeah. And how that can be a powerful mechanism for removing toxins from our system. Yeah. How we go about doing that? What are some best practices?

ALY COHEN: Well, certainly exercise is great for the brain. It's great for flow and mental, you know, mental health. So I'm a runner. I love to run. And I even actually talk about in the book how I add extra layers. I look kind of silly sometimes when I'm running, but I hydrate well and then I run and I kind of wanna sweat more. I'm using that not just to feel good mentally, but also to, you know, throw that sweat into my, my clothing. And, that's one way to do it. And people as, as a rheumatologist, you know, people can get exercise even in chair aerobics, right? Even if you're lower extremities, you have knee arthritis or hip arthritis. Certainly many things you can do to sweat from just upper body movement. But sauna, I think sauna, old fashioned sauna is what I prefer.

You know, if you have access to a gym with a sauna, if you create your own sauna, if you go to places in the world where they have natural saunas, take advantage of that because it's another mechanism of washing some of these chemicals out of your body. Yeah, I mean those are some of the most important ways I think. And it's interesting when you're sweating through even exercise, you're flushing the liver with blood flow and there's actually studies showing that you're increasing what's called stage two conjugation, which is the breakdown of many of these environmental chemicals, these IDCs EDCs. And so there's many mechanisms from running and from or from exercise that contribute to the whole process of lowering those exposures.

SHAWN STEVENSON: Yeah. So again, there's so many points of entry for this one, you know, but it is super important. It's, we have this capacity for a reason. It's a really important aspect of detoxification for ourselves, no matter where you are. And you mentioned some great

options. Obviously exercise and put on some layers, but getting to a sauna, if you can, at a gym, or if somebody has a sauna. I know people that have saunas at their home that never use them. Yeah. And also when I lived in Ferguson, Missouri, all right. Just like didn't have really two nickels to rub together. And it was because of my mother-in-law and we were doing these different, you know, detoxification strategies, but one of them was to sweat.

And what we did, I didn't have, there's no gyms in Ferguson, there's no gyms, there's no yoga studios. And also, this was dead of winter, but, and this is, again, it's safety. All right. In parentheses safety. But basically boiling a pot of water. Yeah. And just sitting it on, you know, something safe on the floor, throwing a blanket over your head. Yeah. And sweating from that, you know? Yeah. Like, there's so many different ways there. This is not about accessibility. Yeah. This is about choice and being proactive, once you find out about this. And this isn't something that you have to do all the time. Right. Maybe if you could once a week get a good sweat in. Even once a month, it's gonna be super helpful for you.

ALY COHEN: There's no, you know, no one's judging. I, I look at it as, no one's judging. I look at it as a journey that no one's judging. And, and you know, again, you have to appreciate the reason to do it. You need the why to do pretty much the what, you know, it's almost like you need a reason. If people, you know, are about to have a baby, there's a tendency, very primal tendency to be thinking, even if no one ever told a woman that, you know, like there is primal instincts and there's, you know, we didn't talk about food, which we can talk about. But you know, the idea is that again. Reiterating, you're taking away as many of the things that we're letting into our body just by not even being aware.

And now we're aware, or by just fewer choices, by, I mean by fewer products, swapping out. But then we're adding in, like you said, sweating and exercise and sauna and sleep and all of these really important mechanisms. So the two together, the processes together are where we're, you know, gonna see the most benefit in terms of exposure, so.

SHAWN STEVENSON: You've said the S word a couple times.

ALY COHEN: Yeah.

SHAWN STEVENSON: You said sleep.

ALY COHEN: Yep.

SHAWN STEVENSON: How does sleep relate to detoxification?

ALY COHEN: Yeah, so, sleep is really quite important when it comes to just clearance of chemicals while you sleep from, from the brain. And you know, the studies really ramped up in 2013, 1415 from around the world, and they were studying the chemistry of cerebral spinal fluid, so the fluid around the brain and the spinal cord. And they were finding that when people slept overnight and the longer they slept, and not necessarily hitting all stages of sleep, but really the the time spent where the brain is shut down as much as it can be. And there's time given to sleep 'cause we all take sleep for granted. But that's time well spent in terms of.

Clearing chemicals. And, I even read some studies recently that even our breathing pattern while we sleep can either increase or decrease the rate of, you know, excretion of a lot of these chemicals. So I think sleep is such an important underrated topic. You talk a lot about sleep, I talk a lot about water. We should, you know, we're, we're combining our, our big efforts here. But sleep is really underrated in terms of a health, you know, prescription if you ask me.

SHAWN STEVENSON: Awesome. That's, again, something we don't think about, like to detoxify our bodies, we need to prioritize our sleep. And that's the glymphatic system That is correct. That you were, were talking about and really just. It's 10 times, approximately, 10 times more active when you're sleeping. Cleaning out metabolic waste, making room for new growth. It's important. Super simple stuff.

ALY COHEN: Even brain cell connections. I mean, thinking about how our brain rests and collects memories while we sleep. It's just a remarkable, and no mammals can live without it. I mean, it's just a remarkable.

SHAWN STEVENSON: We have not evolved out of this.

ALY COHEN: We have not evolved. Our bodies need to shut down. You know? It's just one of the things that has to do with survival and living on, it's crazy.

SHAWN STEVENSON: Yeah. Let's talk about food. You mentioned earlier iodine in the context of thyroid health. So what are some things for us to do nutritionally? Because these are the, the compounds with our bodies can't do any of this stuff, right? These detoxification pathways aren't gonna work unless they have the fuel to do it. And also food makes up all the parts. Yeah. Your liver is made from food. Your skin is made from food.

ALY COHEN: Right.

SHAWN STEVENSON: Which foods can help us with detoxification.

ALY COHEN: So it's what's not in food first that I would think about in terms of chemicals. And then we'll talk about which foods we wanna add in as inputs that really support ourselves, and our detox processes. So thinking about what we eat in terms of processed foods. Most people can wrap their head around, you know, lots of chemicals, lots of junk, but even fruits and vegetables, which may be a lift for people to think about, but I want them really to think about. The quality in terms of exposure to pesticides in just fruits and vegetables and things we consider pretty healthy, right.

That's great. I want Whole Foods. Plant-based fiber is really great at, you know, kind of, sponging up a lot of chemicals through our GI system, keeping us, you know, our colons healthy so we have less colon cancer, for sure. We need more fiber. But thinking about the quality of produce and one of the things, you know, I always talk about USDA organic, as being a really great choice if you have access to it. And I'm gonna say that most people do now because USDA frozen produce is a big thing now. It's in every big box supermarket across the country, and I spend a lot of time, even in LA and running around different parts Everywhere I go, I tend to go to a supermarket to see if they have a selection of USDA organic with the seal, you know, produce, which is flash frozen, which has two, two very important components to it.

Number one, you have by being organic USDA organic, which is the only regulation in the food system that actually has any teeth because it keeps thousands of pesticides out of the soil. Those are grown in and off of the spraying of those produce Fertilizer chemicals are limited dramatically. It's not perfect system, but it's really quite good. Genetically modified ingredients are not allowed in organic foods in the us just foods. So when you think about quality, you can go with USDA organic frozens because not only do you have less chemicals that you're adding into your body, but nutritionally they have an enormous amount of nutrition because they're typically flash frozen.

They're picked and frozen right away and sent to the store. And so because of that, and because our food system is actually not as great as we'd like to believe, and it, you know, produce that's fresh, that's picked, that's not frozen, kind of travels long distances, maybe weeks, months, or even temperature down to, you know, six months before the nutrient value drops and when the nutrient value drops, you don't have that add that, that additional benefit of the work you're doing. So I like people to think about, number one, buying USDA organic, wherever it's accessible from a cost perspective, looking at frozen USDA organics, and then you can always wash or rinse and agitate. Regular produce that's not organic that you have access to.

In baking soda, one part baking soda, maybe three or four parts water or white vinegar is great to have next to the sink because that helps reduce some of the residues that are on that produce as well. So lots of options. There's even the dirty dozen Clean 15 list from environmental working group. So I want people to have lots of options, but thinking about food quality and not just the big picture macros like fats and carbs and this and that. It's just a different layer and it really does change your gut microbiome effects and it changes the chemistry of your body a little bit more than if you don't think about that.

SHAWN STEVENSON: Got it. Awesome. So are there any specific foods or nutrients that we should be targeting?

ALY COHEN: So now is that portion of this where, you know, we now know there are incredible studies showing certain nutritional components of food actually offset some of the

harm from environmental. Chemical exposures that DNA methylation, that sort of genetic epigenetic changes. We know that, you know, B nine vitamins, which is folic acid, green leafy vegetables, can do that. We know that Omega-3 fatty acids from small fish over big fish 'cause small fish have fewer environmental chemicals than the big fish that chew up the little ones.

That's called bioaccumulation, aim for small fish, sardine salmon, mackerel, herring. So omegas from fish, omegas from plants. You know, we get flax seeds, have omegas that convert properly, in a lot of people. So thinking about the omegas can offset that thinking about quercetin and vitamin C and vitamin E. These are antioxidants that offset some of the inflammatory, you know, response to these exposures that we're experiencing. There's so many when it comes to Selenium. Having a diet that has selenium or as I talk about, you know, in terms of supplements, actual supplements, like a multivitamin that has selenium, that actually offsets heavy metals, particularly mercury.

So there's nutrients that our body craves that actually has this added value of offsetting chemical exposure harm. And whether you get it from your diet or you get it routinely or not, that's one of the reasons why I recommend a really solid multivitamin amongst other four of my fertilizer, my human fertilizer recommendations. But since we're talking about it, I think it's worth mentioning that a multivitamin can really give you what you need if you're not able to get consistently some of these really, you know, reasonable nutrients.

SHAWN STEVENSON: Awesome. Awesome. Alright, so what else can people expect when they pick up a copy of Detoxify?

ALY COHEN: Well, I hope they will tiptoe into, you know, understanding how to go about this process in a way that doesn't freak them out and really walks them through. There's a 21 day plan at the end of the book, which I think really takes what you've read, what you've picked up in the beginnings chapters, and really puts it into good form. Like day one, do this, day two, do this. You don't need a lot of thinking. It's just like, make sense. Do one day, two day 3, 21 days gets a good start. On this big topic. There is a symptom tracker, so you can actually write down your symptoms. The beginning of, you know, working through the book and then kind of making your way through 21 days.

You can start to see whether your symptoms fatigue, you know, rashes, abdominal pain. All of these things can really change if you just give your body what it needs. There's a food pyramid, a detoxify food pyramid, which is really talking about what we should be thinking most at the bottom of the pyramid in terms of food packaging and how to think about food packaging, food cookware, detoxification, water quality before we even get into the food. So I want that whole picture, something that people might, you know, harness and make some changes, but I hope people just, you know, really embrace it as a way to get started. And look at it as, you know, handholding. Through a very difficult thing to navigate.

SHAWN STEVENSON: Where can people pick up a copy?

ALY COHEN: Online. Certainly, Amazon, Barnes and Noble. You can go to the Smart Human, which is my website, thesmarthuman.com. I also have courses there actually, and people can take courses on pesticides and EMF, you know, cellular radiation and what to think about and water quality. But that's the landing page for my educational work is the smart human.com and my handles on, on Instagram, TikTok Twitter podcasts are all the smart human.

SHAWN STEVENSON: The smart human. I love it.

ALY COHEN: The smart human.

SHAWN STEVENSON: I love it. Detoxify. Pick up a copy now everywhere books are available, and thank you so much for sharing your wisdom. Thank you for. Persevering through your own challenges and figuring things out. Because again, we talked about this earlier, a lot of times, some of the most difficult things. Yeah. It, it, it triggers us. It inspires us for sure to open up a whole new layer of service. And you're doing this for us and making this message hit differently and in a much bigger way because this is something that we can't escape. Our world has changed dramatically, and we need to equip ourselves to be more resilient. And that's what this is all about, so.

ALY COHEN: Thank you for sure. And thank you for having me, because it takes a village. So you recognize the power of this work, and I appreciate you bringing me in.

SHAWN STEVENSON: Awesome. The one and only Dr. Aly Cohen. Everybody. Thank you so much for tuning into this episode today. I hope that you got a lot of value out of this. Sharing is caring. That's what it's all about, extending this message, of course, making some changes within our own homes. Just practical stuff. Do some simple stuff to support our body's detoxification systems. And also safeguarding our family against the things that are unknowingly harming us. Of course, you could share this episode out with your family and friends via posting on social media, or send this directly via text from the podcast app that you're listening on, and of course, pop over to the Model Health Show YouTube channel and hang out with us in the studio.

Come and hang out. We have a good time. We've got some amazing masterclasses and world class guests coming your way very, very soon. So make sure to stay tuned. Take care, have an amazing day. Talk with you soon. And for more after the show, make sure to head over to the model health show.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 and empowering great content to help you transform your life. Thanks for tuning in.