Introduction and Guest Background

Stress is a toxin. In fact, I call stress the big hairy monster toxin. You know, we're different people. When we're stressed, we're going to digest differently.

Our immune system responds differently. So. So you don't want food to be a source of stress where you think, financially I can't avoid it. Financial toxicity just came out as a new term in the literature.

This is doctor talks. Hello and welcome to this episode of the Environmental Toxicants, Autoimmunity and Chronic Diseases Summit. I'm Wendie Trubow, MD.

This is my co-host, Ed Levitan, MD. Obviously, we're your hosts today. And our guest is Deanna Minich, MSC, PhD, CNS Certified Functional Medicine Practitioner.

So she's I always say she's wicked smart, but she's also humane and cool and awesome and awesome. Okay, I tell you more. She's a nutrition scientist, international lecturer, educator, author, and she has over 20 years of experience in academia in the food and dietary supplement industries.

Through her talks, workshops, groups and in-person retreats, she helps people to practically and artfully transform their lives through nutrition and lifestyle.

Welcome, Deanna. Oh, great to be here with both of you. Yes, we love hanging out with you. Absolutely. Yeah, I'm a nerd and I'm a foodie. That's how you can summarize my bio. All right.

I'm a geek. I'm a science geek who's into food and healing. We like that. I'm trying to think if you could combine the foodie and the nerd together in some kind of, like, amalgamation of a word.

I got distracted with that because I'd love to come up with taglines and stuff. So. All right, so we're diving into food and detox and, because we're all about resolution of disease.

So today we're going to dive into colors and detox. So talk to us about first off how did you get into this. You know what was that moment where you went colors.

That's that's what matters. Oh I thought you were going to ask me about detox. Where did that come in? No, I'm colors coming for that shortly. You're okay? Yeah.

Well, with colors, you know, it actually came through a crisis. If you really want to know, it came through a personal healing crisis. In my 20s, I was finishing up my PhD.

I was having some low periods of my life. Went to the art store just bought a bunch of paints, a big roll of paper, and I had this connection with color, and I don't know how to describe it because it was something that was non intellectual.

It was just more feeling. And as I was feeling this love this, this valley, you know, having that painting, those colors, the colors were speaking to me in a different way.

And from that point on, I was about 28 at the time, and I made a huge painting, and that became my default. Anytime I got into, kind of an emotional state, my default would be to go and paint, and it became this thing where all of a sudden my home started to litter with paintings.

My husband had noticed themes to my paintings, and it became a way that my body was talking to me, or actually

probably my my emotional state. So that's colors from a purely, I would say external, you know, how it was helping me to heal.

But, you know, if I look at my graduate school days, I was getting a master's degree at the University of Illinois at Chicago. In carotenoids and carotenoids are the plant compounds that make foods look pretty.

So they tend to be red and orange and yellow and green. And that's typically when we see a plant food. What we're seeing is those colorful carotenoids.

So my first science interface was during grad school when I was studying that with Doctor Phyllis Bohn at the University of Illinois at Chicago. And from that point on, you know, kind of seeing color in a food framework as well as an emotional framework.

You know, everybody says food is medicine. And what I say is colorful food is medicine, specifically whole plant color foods or medicine. And I think that color on its own is a vehicle of healing.

It's it's under-recognized. And then how did you draw the link from color and colorful foods to detox? Yes. Now enter in Doctor Jeffrey Bland.

How Color and Healing Led to Detox

I was working with Doctor Bland at the Functional Medicine Research Center, and you know, it's so interesting because, you know, I have a master's and also a PhD in the nutritional arenas.

And I had never come across detoxification like it was spelled out to me in functional medicine with Doctor Bland. And what I realized was that he was really a pioneer in this area.

He had publications back to 1990 to 1995. He created a lineage of nutritional detoxification articles. So I came in in the 2000s the early 2000 and started to do some clinical work on nutritional detoxification.

So one of the things that Doctor Bland and I and the whole team had done was focus on things like alkaline ization. We looked at, the role of pH in detoxification.

We had a number of people that would come through the clinic, and we put them on nutritional detox programs. And one of the the big AHA's for me was how people's lives would change when they would do a nutritional program for like 21 to 28 days, focus on detoxification.

So then I started to marry lifestyle together with nutrition and brought those two pieces together. And that's what I began to teach at the Institute for Functional Medicine back in like 2013.

But I would say just even a fun fact going all the way back, if somebody were to ask me, how did you really get into detox? I was raised Catholic and I went to Catholic school.

From the moment I went to kindergarten, I was in Catholic school and there was always this sense of cleansing, purifying, purging, lent. You know, penance.

You know, spirituality is a form of detoxification. So I think that, really my roots in detoxification, I mean, I mean, for as long as humanity has been in existence, we have felt the need to get clean, whether it's of our emotions, our mind, you know, meditative practices going off into the desert, praying, whatever.

And if you look at it, it's nothing new. It's just that we're now getting smarter about things like gene variants and our foods and how we can do this, being that we live in a very toxic environment.

Got it. You know, I'm like sort of like, okay, there's a lot to unpack there. I'm thinking about that because we could go down the route of fasting and detox, but I'd really because you are expert in colors.

I really would like to phytonutrients I don't I'm sorry. Yeah. Phytonutrients. Well, it's the same. So. So can we draw the line? Can you draw the line between the phytonutrients that you find in colorful foods and the ways in which we see that helping us clean up, clean out and detox and that.

That's a big question. I know we only have. The short answer is yes. And let's let's bring it down to some practicalities. I mean, first and foremost, when you just mentioned fasting, the first thing that came to my mind, what most people don't realize is that you need food, you need energy, you need nutrients to detoxify.

So a little fasting is good, but not too much, because then you start to change the activity of the enzymes that are responsible for doing a lot of that cleanup process.

So what I would say it has to be a very measured form of fasting and not too extensive. You know, it sounds kind of counterintuitive, but you actually do need nutrients to drive that whole process.

So plants, let's just talk plants, phytonutrients and color. First and foremost, they give us fiber. So if we want to avoid toxicants from coming into the body, plants are wonderful because they supply the fiber to bind the toxicants.

And what I love about fiber, I mean, fiber is becoming very sexy right now. We used to know it is just roughage and help keep you regular. And now we know that there are there are like 50 shades of fiber.

So many different kinds of fibers with so many personalities, different polarities, different charges, different structures that make them bind to things like heavy metals or even estrogen or even, converted bio metabolites from the liver.

So fiber is integral in detoxification from the point of just preventing something from even being absorbed. And that's the best case scenario, is to prevent something from being absorbed.

All right. So now now that you've opened up fiber, is there a top 3 or 5. Well can you screw it up? I mean can you be like you've got the wrong fiber or you've gotten too much fiber?

Is there some way that a as, as a like as a student of not wanting to screw it up, someone who's like, I want to be a good doobie. And I'm assuming some of the listeners might be like, oh, no, if the wrong form of fiber.

All right, well, how about we it to compromise exactly what what's good and what's too much? And where's there? Tell us about fiber. Because fiber we've been using that more and more in our practice.

Good as a way to detox, as a way to keep the bowels moving. Like yeah, all of it. Okay. So let me tell you what I've learned clinically. And also I see it in the science.

First and foremost, fiber can be used incorrectly because it's such a great binding agent. It can bind up your nutrients. So if you're taking your supplements at the same time as your fiber, you might be binding up and preventing certain things from being absorbed correctly.

So there's that. It's a timing issue. It's a dosing issue. The second thing and this I saw a lot in clinical practice, is that people would get constipated.

And I would think, well, how are you becoming constipated with fiber? You're supposed to become more regular. Well, people were not taking water and adequately hydrating.

You know, fiber only works as well as it's being hydrated. We have different kinds of fibers. We have the broom and then we have the mop. The broom fibers are the insoluble ones.

They just sweep through the gut. Right? They just kind of they're kind of rough and they move things through. They create motility. Those are good. But those aren't the great binding fibers like the mops that sop things up.

You know, they they actually glom on to things because they can take moisture. And so then they create a gel. And those typically are the kinds of fibers that affect the gut microbiome populations and the production of things like short chain fatty acids, which then can lead to changes in mucin production, gut barrier integrity and even signal to the brain.

Phytonutrients, Fiber, and Detox Basics

So that's the second piece. We need hydration. And then the third piece, and this is something that I thought about later in my nutritional career, is we need to rotate fibers.

This is what I was seeing. People would do the same fiber over and over again. So they would be eating a pretty plant rich diet and they would have more dietary fiber.

You know, the average person gets something on the order of 11 to 15g of fiber in a day, and we really should be getting like 28 to 35g, depending on your body size, your caloric intake and all of that.

So we're getting like less than half of what we should really be getting. So in terms of can you get too much? Can you get too little? Well, I think we're more in a state of getting too little.

And when people start to think about fiber, then they think, oh, I'm going to go get some psyllium and just start taking a lot of this supplement on top of my, my diet.

Well, but if you just have the same fiber over and over again, in my mind, you create what I would call a monoculture in the gut. I mean, nature's principle is diversity, which is why I like the rainbow.

I like the spectrum of colors, not just one color. I like them all. And they all have their purposes, their functionality. So the same thing with fiber.

So here's the key for number three. Rotate your fibers. So everything from flaxseed meal to the psyllium that I mentioned acacia fiber, you know, so many different fibers that are out there.

And I do like if it's a supplemental product, of course, for people to work with their health care practitioners on what would be best for them. But some of the fibers are plant.

They're derived directly from the plant. You have prebiotic fibers of various types like inulin, so you may experience some gastric distress, some bowel changes when you first start a supplemental fiber product.

So to note that. But in having that rotation, you start to create diversity of the gut. And that diversity funnels into better immune health. And diversity in general is a protective factor for reducing your risk against these environmental toxins.

I mean, just think about it. If you're rotating brands, rotating foods, you're not going to have the same concentration of the same things over and over again where they would be toxic.

So all in all, diversity for fiber and diversity for everything that we're taking in, even our life experiences. I mean, diversity is so awesome. And we always say people don't get in a rut and expand, try new things, rotate around.

But how quickly are you talking about that rotation? Is it Monday month? Is it a three month thing or is it on Monday? You do X, on Tuesday you do Y, and on Wednesday you do something yet entirely different.

How quick is that? I tend to think in three day increments, and that's even how I structured my own detoxification program. We do three days for red colored foods and getting into the the depth of red colored foods, not just one type, but the whole spectrum.

You know, within red you have diversity. So I think if you look at the traditional use of rotational diets, it's every 3 to

4 days. You change it up. And I think that that coincides very nicely with going even to the market, going to the grocery store, replenishing our foods during that time.

So I think that's good. If you look at the American Gut project, one of the things that they talked about was you, you know, they looked at people that had at least 30 foods per week versus people who had less than ten foods.

And they found that people who had 30 diverse foods within that week were better producers of the short chain fatty acids, which again, we get from fiber.

If you look, there's another article which looked at 50 foods in seven days, 50 Unique Foods. So again, if you have an apple, like a Fuji apple, then the next day, if you want an apple, don't make it a Fuji.

Have it be like a Golden delicious apple or a pink lady apple or some other variety. But you're going to get different phytochemicals, so you're creating that diversity even within one food category.

So that's what I'm thinking is like on the whole every three days change it up. Within the week, aim for about 50 foods that are unique would be my general rule of thumb.

That's great. I'm literally down that rabbit hole now of thinking about, well, how many? You know, last night at dinner we had two different types of beans, and it was in a stew with a bunch of vegetables.

And so I'm thinking about, you know, how much variety is there? Do you have a checklist? I do, I every word. All right. I created a checklist some years ago, actually.

It's, a food variety tracker with all of the different categories. And just to unpack those a little bit, it's not just the the heavy hitters like fruits, vegetables, legumes, whole grains.

I also bring in to that spices, herbal teas, juices. So I remember, I think it was last year because I challenged one of my groups. I said, let's see how many diverse plant species you can get in one meal.

So I remember I intentionally put together a meal with the aim of diversity, and I got 31 different plant varieties. Now, we're not talking about quantity and serving sizes, I'm just talking qualitatively.

So what I did is I use a lot of spices. That was my way of getting in. Like I would use curry, which is already like five spices combined. Right? So that's five.

So as long as you're not duplicating anything, it would still count towards that number. So spices I think are key. And they're also key for people on a detoxification program.

It brings in flavor and it helps with the cooking process. I think we form a lot of toxins with cooking. Number one, we have our cookware and then it's like, well, how are we cooking?

Is it dry hot heat which forms advanced glycation end products. But one of the ways to prevent that, or at least reduce it, is by incorporating spices before cooking, not after cooking.

Before cooking. It will be protective of the medium. Whatever you're you're cooking meat, vegetables, anything can break down and start to oxidize and become more inflammatory.

With cooking, it's like not to say that people should be raw, because that depends on, you know, where you live in your body type and all of that. And actually, I think somewhere in the middle, like steaming food, making it even more colorful through that cooking process.

Now. Interesting. Do you have any? So from a traditional Chinese medicine perspective, there's always the idea of different food has different heat properties.

And if you're a cold type that you want to have more hot foods, and if you have more fire in your belly, you can, do more, raw foods. Or if you're, if you're in Florida versus us in Massachusetts, that you would have different types of foods because the environment is different.

Any research or any thoughts about that? Because that, when I learn traditional Chinese medicine, that's really that's stayed with me still. Yes. Well, there's beauty in that.

I mean, first of all, I'm married to an acupuncturist, so he and I have these East-West conversations all the time. I mean, we have a library of TCM books.

We have a library of functional medicine books. The two paths converge. So I love that you're asking that question and building the bridge of what we've known for hundreds of years.

You know, it's like, how do we bring in the elements? And in fact, whenever I teach detoxification, I talk about using those elements fire with heat through a sauna, through sweat, water, through hydrotherapy, drinking water.

There was a great study that was just published two days ago on hydration being connected to accelerated aging. Then also looking at air breath essential oils, what are we taking in?

And then the earth element, the soil, the microbiome. So when it comes to taking those elements into our food, yes, I do think that we can slice and dice and think of the spectrum of hot and cold damp or dry and and start to work within that paradigm.

I absolutely do. And I think that that's where we bring in variety. So for somebody who is really resonate with that, you know, looking at the season, this is why usually detoxification programs are done at spring and then at fall during those transitions where the foods are changing, the foods are changing in their structures like leaves versus seeds.

Fiber Types, Rotation, and Diversity

And we even see that purple grapes, a source of polyphenols, which are incredible for helping to prime the gut as well as the brain. Ultimately, those coming out in the fall.

So nature. I feel that with TCM and Air Veta and some of these traditional medicine practices, there is an honoring of nature's rhythms and staying in balance with that.

And what detoxification, I think is ultimately is getting back into alignment with your inner elements and how that matches with the outer. Yeah. So yes, definitely.

I always talk a lot of patients want to detoxify in the winter and want to come off their antidepressants in the winter. And I'm like, not that not a good, you know, not a good plan, but let's do it in the spring.

This could be yes, chirping outside. It's going to be beautiful yoga. The person doesn't have to. You don't have to fight, seasonal depression. Right?

You'll have fresh available greens. Yes. Not have to import them from California. All that makes a huge difference. Absolutely. Where do you come down in the local versus organic conversation?

Because I literally struggle with this. I mean, we live in Massachusetts. There is nothing local, right? That's organic in winter. In winter? Yeah. In winter.

Well, and you know, you do the best you can with what you have. I was telling my husband just this morning reflecting on, you know, the levels of stress that some people have about eating.

You don't want eating to create stress. Stress is a toxin. In fact, I call stress the big hairy monster toxin. You know,

we're different people. When we're stressed, we're going to digest differently.

Our immune system responds differently. So do our hormones. So you don't want food to be a source of stress where you think, financially I can't avoid it.

You know, financial toxicity just came out as a new term in the literature. So there's even like thinking of money is like, oh my gosh, my, my survival.

So we don't want that, right. But how do I come down? Let's just what I would say is local and seasonal again are more in alignment with one's environment and nature.

So I think that that's a good thing. I do think that when we can choose and I really like how certain grocery stores even will mark, like locally grown.

Yeah. And I tend to veer towards those things. And if I can stay with the organically grown food, then I know that typically those are the things that are in season.

Whereas when I see pineapple at the grocery store in December, I'm thinking, I can't find any organic pineapple. You know, it's all like it's just created in Costa Rica when it's warm and it's not.

That's not what my body's signals are at that time. So as one of the physicians I used to work with, doctor Jack Kornberg would say, when you eat foods of summer, in the winter, you're giving your body the signal to store fat to get ready for the winter.

Right? So in his very simplistic way of talking with patients, he was actually giving such great truth of how those signals in from those phytochemicals in plant foods are telling our bodies how to prepare what we need to do.

It's not to say we should never have an orange in the winter, but should we make it a regular practice? Well, if you don't find them in Massachusetts in the grocery store and you know, and you're going to be paying a premium for those kinds of foods anyway, so it's just all the odds are stacked against that.

But if you really have a hankering for an orange, you know, perhaps to honor that body's signal when it arises, as long as it's not excessive. I remember you couldn't get tomatoes in the winter when I grew up, that just because it wasn't seasonal where we were.

Yup, yup. Just wasn't that way. You just couldn't get it. Didn't even. But now we can even have an Hothouses. You know, house tomatoes. That's not all right. It's relatively local. Let's go back.

Okay. Go back. Let's go back. So to help, can you help draw the line? Let's going back to Phytonutrients and Detox. Can you help draw the line. Not even before.

Before detox that when we have phytonutrients. How do they signal and change our gene expression? Because that's going to impact our detox too. So what's the line between phytonutrients and what they're doing for to our genes and gene expression.

Yeah. So many things. And in fact, I would say that the science around plants and these phytochemicals has amped up, within this century. You know, last century, in the 20th century, we thought of a lot of these plant compounds as antioxidants.

It's kind of like, oh, they're protecting the cell. But now we know that they have epigenetic effects. They have DNA expression effects. So one of the things that they can do as it relates to detox, and I think that this is one of the more exciting pieces, is that many of these plant compounds can enter into this cell and tell the DNA to produce the antioxidant response enzymes to help your body to detoxify better naturally.

So aside from being an antioxidant, whether a fat soluble antioxidant or water soluble one, it can speak to the DNA

to have the genes made to create those enzymes in the body so that you are fortified.

You know, one of those, enzyme systems we think of, it's called, well, it's a free antioxidant response element. And right next to that part on the genome, you also have the metal response element.

So some of these plant compounds can tickle the gene in such a way. Tickle the different parts of the DNA to enable the body to produce more of the features that it needs to better protect itself on its own.

So it's not like just like a shield, right? Like usually with detoxification we think of like, oh, how do I have a shield through these plants, through their antioxidant action?

It's actually empowering the cell to be on its own, much more protected endogenously, like just through its own creation of these enzymes. So that to me excites me the most because it's beyond being an antioxidant.

It's like it can help your your DNA to give you the proteins that you need to protect the cell. And and I would say, Wendy, just aside from that, you know, there's a laundry list of what plants can do.

But when I think of just the three main mechanisms, aside from those, I think of stress response, you know, more of the adaptogenic effects of plants and how they do help us to signal within our environment.

I think of, insulin signaling, which is, a big feature as it relates to cortisol and even stress response and glucose and uptake. And then the third one is inflammation.

You know, most people, the way that they respond to toxins is by becoming inflamed or having high amounts of oxidative stress. So essentially they start to become more at risk for chronic diseases.

And they start to accelerate their aging process through inflammation. We've heard about inflammation, aging. Now there's a new term. It's coagulating.

I don't know if you've seen that, but inflame aging and coagulate aging, you know, clot clotting, sticky blood cells. You know that's not good. You want to be fluid and flowing.

And that's one of the other aspects of detoxification is transport liquid. You know, things don't have to be rocket science. Most people more than 50% worldwide of people do not drink adequate fluids.

And especially as people get older, for some reason that falls off even more.

Cooking, Seasons, and Traditional Medicine

So our hydration status plummets, which means that how our body is getting these things out, just very simply through urine, through sweat, through tears, through all of those different, I would say conduits is, is not being enhanced because we don't have the, the fluid we need.

So dehydrating essentially. That's good. Oh that's good. You need to coin that. Get an article out dehydrating. That's beautiful. Oh yes. That adds to the whole triangle inflammation.

Coagulating the beautiful. Yes. You want. Yeah. I want to go sit on the committees for coming up with words for cool functional medicine trainings. I'm just I have a new career. I'm leaving.

Man, that's a good one, Wendy. So I want to go back because I think we we don't talk about this often enough, even though we don't talk about Bruno. Like we're.

Oh, you talked about inflammation, which we talk a lot about. Really? We don't really talk that much about other effects of blood sugar. We don't talk about the adaptogenic effect.

So you give a little bit more on that because I think people really aren't paying attention. Like it's not just inflammation because it's it's always inflammation, inflammation, inflammation.

But then there's blood sugar which is huge. Yeah. More information cortisol and adaptogenic and that that foods are full of all these different chemicals that help us regulate our bodies, that we don't we don't we just don't talk enough about we don't.

And so I just you're a triangle. And on this triangle I want us to think about glucose. At the top. I want us to think about insulin. And I want us to think about cortisol.

These three are all in, unified harmony in terms of how they work. So if glucose goes up, you're going to tackle insulin, you're going to tackle cortisol.

Cortisol goes up with stress. You're going to take a glucose. You're going to take insulin. Insulin changes similarly. And at the heart of that is an adaptogenic effect.

It's how well we can mesh with our environment. How resilient are we to the subtle changes in our environment, whether it's through a toxicant exposure?

You know, we can even say that a toxin is a stressful exposure. Even when I teach a university course, on detoxification, I talk about stress. I talk about emotions.

I mean, it's all part of the picture because it changes physiology. So with, with cortisol, insulin and glucose, etc. these are definitely interrelated.

And the higher our glucose goes systemically, this becomes very problematic in the way of complex thing with proteins we damage proteins. We actually create these endotoxins.

So we create our body just creates them on their own. If we have high circulating glucose, all this sugar will complex with our red blood cells. What do we have hemoglobin A1 C right.

This is a marker of accelerated aging. In my framework. Anything that accelerates aging or biological processes, is detrimental and can lead to the risk of chronic disease in some way.

So blood glucose, this is something we need to keep tabs on for sure. It is, I call it the glucose creep because many times we see that blood fasting blood sugar starts to go up, but nobody says anything until it gets to like where you're actually classified as diabetic.

Right? Right. But we can see it's going up. People are starting to wear continuous glucose monitors. I even did that for fun. I mean, I'm not diabetic.

I just wanted to know about my blood sugar. How does it respond? It was pretty amazing because it helped me with physical activity. I would wear it and I noticed how I could drop 20 points in my blood sugar just by going on a 30 minute walk.

After eating. It's like, wow, compliance, behavior change. Like I really need to go for a walk after. So being in touch with your blood sugar and also your insulin because all the people wearing those CGM.

So it's continuous glucose monitors. You're not seeing how much insulin the body is putting out in order to keep you at a certain blood sugar level. So that's the key of what we're missing with that metric.

So that is important for detoxification. And if you're overloading the body with too much sugar, too much insulin, too much cortisol, this gets in the way of other processes like detoxification.

Right. Already we're going to see inflammation as a result of that already. As a result of that we're going to see

oxidative stress. And this zaps the body's resources that could have been used in order to move toxins out of the body.

Because as I was saying before, detoxification is very nutrient requiring, you know, there are phases of how that happens in the body, and you need nutrients for all of those phases.

So if you're missing one, that becomes your rate limiting factor and then you stop, you know, it's like you're not going to push much more through that because now you've got to deal with issues of survival.

Cortisol, insulin and glucose. And that's how the body works. It works first, based on survival. We need to meet our survival. Basic nutrient needs. Yeah think I'll I keep coming back to his stress because yeah everybody's what people I feel like people miss out is okay.

Stress is eating too much sugar. But it's also like anything that raises the cortisol is good. Yeah, that's just physiological. So could be an argument.

It could be too much exercise. Yeah. Like it's all stress or not enough exercise is stress also because you're not doing what to not taking care of the insulin etc..

Right. So I think the idea of stress is we we categorize it mostly as, okay, I'm, I'm stressed out at work or whatever, or I had a fight with my partner or our kids did something or whatever else.

Stress is so big and making sure that we understand what it is and like you said, if we're stressed out, we're not detoxing, not digesting, we're not building.

We're in in the catabolic state, not an anabolic state. In other words, we're, breaking things down. We're not building things up. Yeah. So I guess the question becomes, you know, stress is not going away anytime soon.

And we need stress for our everyday survival. We need a little bit, you know, this is you know, for me, it's like we need that tickle my husband always Laughs because you know I live in Washington state where we have ferries.

And I always like to get to the ferry at just the nick of time. It's like a race in my mind. Like a game like, can I get to the ferry? It's just that moment.

It's like a healthy stress because I'm not going to die if I don't take the ferry. Like, that's not a life threatening stress. But there are life threatening stresses.

And I would call, you know, just even if I look at the literature and how I would work with clients. Locus of control. What is under your locus of control?

I think that's what we work with. Like make a list. You know, I so here's one activity. It's very practical. But I have workshop this over and over with thousands of people over the years, and I call it the energy inventory.

Most people don't know where their energy is going. They don't even know what stresses them. And, you know, they haven't really taken an inventory. It's almost like, you know, the drop, drop, drop, you know, the Chinese water torture of like, all these drops coming in.

And then before you know it, it's like, oh, but I didn't realize that. It's like, no, you need to be aware of where your energy is going so that the activity is you take a piece of paper, you make a line and in the middle, or you can fold it in two.

And then on one side you give yourself three minutes.

Plants, Gene Expression, and Detox Pathways

It only takes three minutes. I love very intuitive quick things because then the head doesn't come in too much, right? Like it's just very you just get it out.

So then you write down for three minutes, you time it on your phone, all the things that give you energy. And it could be a person, could be a place, it could be a time of year.

It could be certain activities that you have through the day. Just anything that gives you energy. Then you stop. You go get a cup of tea, you stop for 15 minutes and then you come back to the activity and you do the same thing for three minutes.

But now you write down all the things that take your energy, and you just let yourself go with that. It could be this all the same things like a person, a place, something that you're doing every day.

Like are you, are you sedentary? And you know, like that stresses you out? Are you, commuting a long distance? Are you having to meet with certain people who, you know, so then you compare the lists, you see which list is longer, you can see where you can replace things or not.

You know, it's really interesting. And I've observed this just pattern recognition is that. And I've done a lot of groups with women. So I'm just going to speak to women because that's why I mostly use this tool with women in their 20s, 30s and 40s.

Their list of depleting is really long compared to their list of what they get nourishment from. But it's interesting because then women in their 50s, 60, 70, and I've had 80 year olds in my workshops, it reverses like all of a sudden, like the minuses are less and the pluses are more.

I'm like, ladies, what's happening? Is there like a wake up moment where there is almost like, Will you start saying yes to things that you know are going to drain you and stress you out?

And I do think that more self-awareness and being really in tune with one's body, with their emotional response to something, is super key. So I think it's just important for people to know their stressors.

You know, you make such a good point. You know, we're so we're about to publish our second book, which is all about transitioning into menopause powerfully.

And and, you know, it's it's so interesting because I think of 50 and over as the know best time, you know, like I just don't I don't in my 20s and 30s I would have put up with things that now I'm like, you know, that doesn't work for me.

Yeah, I'm not going to play. And so I have a lot less, it's not space. I have less willingness to engage in things that don't work for me. And I'm much more willing to set boundaries in ways that I wasn't when I was younger.

So there's definitely something about the aging process that that adds to this, like ability to say no and just set boundaries in a good way. Do you know, here's where aging is working for us, right?

It's like, wow, aging is giving us boundaries. And and you know, if you think of toxicity, you know, there's the boundary aspect leaky gut, leaky brain, leaky mitochondria.

I then draw the correlate to leaky life. It's like, why do we keep saying yes to that? We should be saying no to like, let's wake up to that and remove that interference.

Because to me, a toxin is anything that gets in the way of your potential, like your true self coming to the surface. And why wait until we're in our 50s to wake up to our true self?

It'd be really nice if people had a handle on that earlier, and can quickly go with their sense of their body and say, no, that doesn't feel right for me.

So it's such an interesting thing that I think the majority of us live in waiting for a problem to respond to, as opposed to living the expectation of.

We are meant to develop and rich in and get better every decade because it's it's a much deeper. So until you have a crisis, which is why we're doing the summit, because people have health crises.

Yeah. You have to then respond to a crisis, but you might not have responded in the same way. I actually remember someone my kids went to preschool with.

They the, the my daughter's friend had a lot of health issues. And I said to the mother, have they tested the kid for celiac? Because as a celiac I'm always like on the look for it.

She said, oh, they're doing that testing. I really hope he's positive because otherwise we won't take them off gluten. And I said, well, you can have problems with gluten without being a celiac.

She said, I know, but I'm not going to take them off gluten unless he has an autoimmune disease. And that's such a it so clearly stood out to me like, you need a problem to respond to instead of reacting to the possibility of health, even when there's not a clear problem.

Exactly, or just even to give it a shot, to give it a possible, try, because I have known of other very similar instances where, a 50 year old, woman who I knew, she had rheumatoid arthritis and it was crippling her, and it was changing her ability to work.

And I said, what if you just went off of, you know, and did a eliminate elimination diet just to see. And she goes, oh, I can never give up my bread, cheese and coffee in the morning.

And I was like, bingo. The things you can't give up are probably the things keeping you in dysfunction. And if you're so wedded to those things. And that's not my wisdom.

That was, from Barb Schultz, who I studied with. She is, I worked with her at the clinic, and she is I would call her the grandmother of functional medicine.

And she would always say to me, as she was training me, she would say, Deanna, just ask the patient what they're least wanting to give up, you know, because we would do a lot of elimination diets and then people would say, oh, I can't do that because, you know, I've got I can't give up sugar.

It's like, bingo, it's sugar. Okay, so let's not give up sugar right now, but let's give up other things. And then you're going to start feeling better because the elimination diet in my experience, brings down about 50 to 70% of people's symptoms across the board.

It doesn't matter if it's sleeping, feeling, body complaints, pain complaints. I've even seen seen it with my own father who had debilitating hip pain, who went on an elimination diet.

And like by day nine, he's like my hips. But, you know, most people don't put it together where it's like, oh, wow, my food is changing. My body's response to pain and how I'm sleeping and even how I'm relating to life and whether or not you have anxiety.

Even so. Yeah, yeah. No, I actually want to bring that connection together because people that are stressed out, they usually junk. Right. So yeah, or they're more prone to eating in ways that don't serve them.

Yes. What she said is exactly. And then if you just change the food, people's people feel, oh wait, I'm not as stressed out and they haven't changed any of their outside and nothing outside has changed.

And so the other way around, also, if you change what outside, you're going to want to eat better food just because that's what your body's going to want.

So it's just interesting in this connection that these are connected. Your your mind and body are not separate. They're not separate. In fact, I'd love to, tell the audience about a study.

And I've been teaching on this study for years. It's so intriguing. Basically, the authors were talking about how inflammation begets a more reactive response in the way of behaviors so delayed somebody can't delay their gratification.

They're going to make more impulsive decisions when they have physiological inflammation. So if you think about it, the color red, just like your beautiful dress there. When I love red, you know, red is interesting as a color because, the psychological literature would say that red connects to anger reactivity, but it also connects to vigor, passion and life force.

Stress, Blood Sugar, and Adaptation

I mean, it's like blood, right? I mean, there's this sense of something bright, but it evokes a response like a stop sign or an ambulance or a stoplight.

So red is response. So what is inflammation ruber call or dolor right. Redness pain heat swelling tumor. You know and so inflammation is not necessarily bad.

But when it's prolonged and add a low level over time you know no doubt we would see changes in our psychology. Right. If the body's inflamed, you don't feel right in your own skin.

There's a sense of reactivity. Overall, the body is in a state of red. So, from a Chinese medicine perspective, you know, we think about the fire element, the heat, and how I know I feel very differently.

And in hot weather, you know, in, Ayurveda, I'm more of a pitta hot fire type anyway. So more fire just makes me more reactive and just exacerbates and brings that out sometimes to a more dysfunctional degree.

Whereas being in cold weather, you know, this is where we can balance our natures. So if we have too much inflammation, how can we quell that? How can we bring that down and get a bit more cooling?

And then maybe our behavior changes. And I think that a lot of the science and where it needs to go is in behavior, because most people know what they need to do.

They know they need to drink more water. They need to get more physical activity. They need better relationships, sleep better. They just don't know how to make those behaviors and kind of lead the gluten free breadcrumbs to get their.

You know, so there are more resources coming out now on behavior design, which I think is very promising. But what does behavior need? It needs nutrients to sustain the neurotransmitters to sustain the hormones.

So you can't just try to hack your environment without having the nutritional foundation that is going to lead to, you know, just a greater propensity to do something.

They go hand in hand. Physiology and psychology. I'm thinking about this idea of what I call crowd out instead of elimination, because sometimes it's so threatening for people to give up something so, well, I'll say to them is, okay, don't give it up.

But if before you eat it, eat all the stuff we want you to eat. So crowded out, so you'll see if you really need it or if you need as much of it so we can start to increase your phytonutrients and increase the value in the fiber and the breadth of food.

And then at the end of your meal, eat those things that you think you need. Yeah. And that's why I focus on color, because it's fun and it moves people away from this idea of restriction and elimination.

And in fact, even when I do my detox program, I have people where the colors that we're focused on for those days. So I like to have a theme. Like whenever I was growing up, we always had birthday parties with theme.

So I always think in themes like, okay, day one, our theme is the body. It's the color red day to our theme is community. It's the color red, you know, and I have like themes that we focus on.

So it draws your attention up and out into like the macro of your life rather than the micro of just your plate. But they are related. And so helping people to see the the larger picture of it.

I mean, my dad not to pick on my dad again, but you know, it's so interesting because my mom is the longtime health nut, you know, she was really ahead of the curve.

I grew up in the 1970s, so I just turned 52. So I grew up in the 70s when it wasn't cool to be into health. My mom was into Richard Simmons, Adelle Davis.

She was making her own food. I had to bring my own food to Girl Scouts. I mean, it was such a, like an eclectic life. My dad was just the opposite. He's like the junk food guy. He'd like, go and sneak out.

We get in the car and he's like, take us out for donuts. So it's like, these are opposing forces in our house. And my dad had like this, this voracious, sweet tooth.

And so it's always about sugar and, you know, memories around food. Food is love. And so, you know, it's really interesting to have my dad on this program, that I created, like, with the colors.

And when my dad's into something, he's all or nothing, so he really gets into it. So when we were on the red days, he wore a red t shirts and he took pictures of himself.

And so for 21 days, he. I had these pictures of him every day. And it's so fascinating how like, his face changed. He went from being very serious, like on the when we started off in the red days and then all of a slight smile, slight smile, larger, larger laugh.

But by the end of it, he's totally smiling and he's in a white t shirt because we end with white and my mom is calling me and she's like, Deanna, your father is like a different person.

Like, this is what happens. What you just said, Ed, about, you know, our psychology. So when people do a detox, they're getting clear. A lot of those clouds, those fogs that they've been operating in, whether it's fear or, you know, cognitive fog.

You know, I, I've had people where they do a detox and it's like, I'm going to quit my job. They get clarity and then they get the energy to do it. I had another person.

I'm moving across the country. I had another move woman who moved to a different continent during a detox. Like serious catalytic changes can happen when you remove a lot of the inflammation.

You remove a lot of the noise, a lot of the depression, anxiety, whatever it is, mood or body stuff. It's like our true self comes out. It's like, oh yeah, this is what I'm about.

So it's just really neat to see my dad, who is kind of the classic junk food guy. You know, it's difficult to be a prophet in your homeland, right? Like my mom and I tag teaming with my dad, and it's like, too much pressure, too much pressure.

So, you know, I just kind of let go. And it's just so neat to see him make that change through color and his face, like, would he just on his own, took pictures of himself read to every day. And it was just really cool.

I made a video at the end of his progression. Now we got to continue to bring him back to it and remind him. But,

that's what life is about. It's like, how do we bounce back?

We're always going to have stress. We're always going to have where we eat off of what we really want to be eating. You know, maybe during the holidays, I call it bounce back mechanisms.

How do we just quickly bounce back into where we want to be? And perhaps that gets shorter and shorter each time. So instead of being further away, we now shorten that distance and we quickly get back on track again.

Yeah, it's not about perfection. It's about making sure that we have mechanisms to get back on track. Yes, and staying off the wagon or off the track for less and less time each time.

And planning for excursions. Right. You know, if you're going somewhere and either eat first or you know, you're going to eat things that aren't what work ideally for you.

So plan for it. And yeah, be kind to yourself. You know, you're going to do it now. Just get back on track for your day or throw a little detox right afterwards.

Right. Take your binders, take your fiber like an hour before you go. Take your fiber fibers. Amazing. I love fibers. And then, you know, just being within the whole scope of plants.

I mean, just any plant has so many redeeming qualities, and I don't know if you want me to touch on anti nutrients, but sometimes people have concerns that when they eat so many plants, they get concerned about things like oxalates, lectins, trojans, fights, tannins, you know, you name it phytoestrogens.

There's always a reason not to eat those plants. So we actually wrote a review paper on it. I teach as part of a graduate program at the University of Western States.

And so one of the students, Weston Piotrowski and I put together and I said, Western, you know, I'm hearing all this slack about anti nutrients.

Behavior Change, Elimination Diets, and Practical Detox

I just want to get clear, like if there's science to show that having lectins leads to autoimmune conditions and that there's a higher risk of that. We want to know I want to be better informed.

So we put together that paper. We published it a couple of years ago. And you know the takeaway was we're eating plant foods out of their traditional context.

You know, for some people, they're having them raw. They're juicing them. They're having large amounts of them on a daily basis. And I, I don't know, I have a hunch many of them are double sided in terms of what they're doing.

And like tannins, what are tannins? Tannins are in tea and the tannins are actually polyphenols. So depending on the lecture that you go to, you can hear that tannins, polyphenols are like really great for building the colonic microbiota.

Or you can hear, oh no, tannins are not so good because they bind iron and you're not able to absorb your iron. But you can imagine that that might be a good thing for certain people.

So there's so much nuance. I don't think we can do yes or no's based on the breadth of information that we know. It's so difficult when people say to me, Deanna soy, yes or no?

I'm like, well, it's a bit like we have a number of questions we need to ask first. Too much of a good thing can be bad, and too little of of a good thing can be bad.

So choose moderation well and everybody's individual. And depending on what you need at this time of day, or the

right cycle of the blue that every I don't think we're smart enough yet.

Or if we'll ever be, to really know exactly what everybody needs. So. But you do your best. Yeah, well, and even something as simple as water. You know, when I posted this study on my my Facebook page yesterday, people are like, in the basically the study was published in The Lancet, you know, big visibility.

It was posted on CNN. Over 11,000 people were followed for 25 years, showing that poor hydration is connected to increased risk for chronic disease. I mean, it was a big study.

So then the natural question is, well, how much water should I be drinking? Well, that's a loaded question. You know, like how many factors determine just even water.

We're not even talking a nutrient here. We're just talking, you know, water, which we're mostly comprised of. And then we're not even talking about what kind of water chemicals in the water.

Yes, but let's just say drink more. Don't drink it from plastic water bottles and level up. Yeah. There's always an opportunity. Just level up. So I think we can do this.

I think for our hours for a while. So where can people find all this information? Because where can they find you? Well, yeah. Where can they find you?

The detox, the guides, I think they'll be an amazing resource for people. Yeah. You bet. Well, my website is deannaminich.com, and pretty much on that central site, you'll see my other websites because one of them is Whole Detox, which is my detox book with that color coded program.

So if you access my website, you'll get to my social media pages. I love to I'm again, I'm a nerd. I'm a geek, I like science, and I do bring out the science.

But I'd like to make the science practical. You know, science for science sake is just not my thing. I really want to be sure that we take what's out there and translate it faster than it has been translated.

So, I like to do that on my Facebook page. And often, I do run detox programs, even for free. I usually do that in March on my Facebook group page, not my professional page, but my group page.

And we do a whole detox together. So that's another thing for this particular summit. So yeah. Great. Deanna, thank you. Thank you so much for being here and being part of the environmental Toxins Autoimmunity and Chronic Diseases Summit.

We're so, so, so grateful that you're part of this movement. Essentially. I'm really glad that you asked me to be part of it. Thank you both. Our pleasure.

Thanks for joining us for another episode of the Environmental Toxins, Autoimmunity and Chronic Diseases Summit. I'm Wendie Trubow. This is Ed, and our guest today is Deanna Minich.

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