Introduction and Guest Welcome

– Hello and welcome to the Environmental Toxicants, Autoimmunity and Chronic Diseases Summit. I'm Dr. Wendie Trubow this is my co-host Dr. Edward Levitan.

And guess what? We have one of our favorite guests today, Dr. Mark Hyman. He is a practicing family medicine physician, an internationally recognized leader, speaker, educator, advocate in the field of functional medicine.

He's the founder of and director of the Ultra Wellness Center, senior advisor for the Cleveland Clinic Center for Functional Medicine, a 14 time New York Times best selling author and board president for Clinical Affairs at the Institute for Functional Medicine.

He's also the host of the leading health podcast, The Doctor's Pharmacy, and he's regularly featured on CBS This Morning Today Good Morning America at The View and CNN.

Mark, how do you find time for it all? And welcome. Back. – You know, George trying to figure that out. – So I actually want to start at the end today a little bit because I really want to acknowledge you as like where we start, because you have been you have done so much work for all of us and you've really pioneered functional medicine and I got to the privilege of working with you for six months at the Ultra Wellness Center.

And what I can truly says that not only are you brilliant in your books, you're really brilliant with the patients and you're really brilliant, just a brilliant human being and a person that makes a huge difference.

So awesome for us. Thank you. Like it's just a privilege to know you and yeah. Thank you – Kind words. – So thanks for being here. Mark, we wanted to dove in on toxins and we know that this entry into the field of function is and was personal for you.

Right? Can you. Sort. Of like how it talks in your life when you think back? Do you do you remember when you got that exposure or was it just the cumulative effects?

– Yes, yes, yes. Listen, it is unfortunate, really.

Mark Hyman's Toxic Exposure Story

The way I learned about some medicine was by becoming very sick myself with mercury poisoning when I was 36 years old, from a lifetime of eating tuna fish sandwiches and tuna and also fillings.

And it was all tapped up by living in China and being exposed to the amount of cold, hard, high amounts of coal in the atmosphere there. That was from coal burning plants and coal burning homes that were heating the homes of 10 million people in Beijing.

And I had an air filter would clean it out every day and stupidly would breathe in the set. And I think I got a concentrated dose. So that's what led to me experiencing the symptoms of environmental toxins, the mercury and chronic fatigue syndrome and all the consequences that happened in my biology as a result from autoimmunity to liver problems to terrible C bone digestive issues or cognitive problems, my allergies elevated c k I mean just my whole system collapsed and I literally had to learn functional medicine from the inside out system by system.

And so everything that kind of goes wrong in function medicine is in a microcosm sort of found in chronic fatigue syndrome. So if you understand that, you understand that almost everything could function, that is and that's sort of how I got my start, really.

– Someone said to me on a podcast, It sounds like your mess became your message. And I think that. – Oh, that's a good line. – Yes, right. Your mess became your message.

– And what a message so – Powerful message. – So apparently it was a good best tool. So there you. Go. – Amazing. – Most of us are living in China moving if we went more generally, what are the problems that you see that toxins cause for people?

– M Well, I think, you know, it's one of those things sort of like, yeah, it's almost like gluten. You know, like gluten can cause I mean, ah, syphilis, you know, can cause anything.

It's sort of like that with environmental toxins. You might have severe cognitive issues and affect your brain through A. D. D., autism, no degenerative diseases. M. S.

It can affect your immune system and cause autoimmunity across the whole spectrum. But I mean, disorders. It can cause depression and mood disorders, cognitive cognitive problems through that.

It can also lead to severe digestive issues and affect your gut function. It can be can lead to cancer. They can lead to heart disease, to diabetes, to lots of endocrine disorders that have to do with with the way hormones function in relation to these xeno toxins or as you know, you know, estrogens.

So we have all these environmental toxins that affect us in so many ways they can they're called obesogenic. They're called origins that pretty much can cause almost anything that we see in health care.

And so I always say and I wrote this in my first book, you know, just because, you know, the name of the disease does mean, you know, what's wrong with you.

And so we're very good at naming diseases, but the root cause may be different for people with the exact same disease. So that's not to say that all people with depression of mercury poisoning are all people without immunities have this.

It's just it can manifest in a myriad of ways that are often overlooked and unfortunately not not something that we learn as doctors about how to treat or diagnose.

And so it's, you know, one of the huge underlying factors for so much chronic illness. I would say food. I would say food and toxins are probably the two biggest drivers of most of our chronic disease problems, too.

– W Right. And sometimes your food acts as its own toxin. So you're just you're just in a vicious circle. But I always say to people, you know, look, it's like death by a thousand cuts because you can have the cleanest food and filter your air and your water, but you're still sitting on your vegan leather.

And your vegan leather is made of most likely plastic. And so and you driving your nice car and there's, there's just a million ways that we get exposed throughout the course of the day, not to even mention the thoughts we're having and the toxins that come from how.

– Yeah. It's true. I mean, we you know we a Cleveland clinic when we built our center, which was really amazing that we got this massive center to build and we, we and we were the first ones to create an environmentally safe environment within the hospital.

And I insisted on this. I sort of I was able to push through that very, very strong willed. And I got them to agree it was really only a nominal amount more.

How Environmental Toxins Affect Health

But we have, you know, no off gassing from the carpets, from the paint, from the furniture materials. The air filtration system is the best in the hospital.

The water was the cleanest water in Cleveland. I mean, we just had everything set up. The lighting was was designed to create a positive work environment and not overstress our our system.

So it was really designed to be really focused on reducing our exposures to environmental toxins and creating a healthy work environment. – I remember when we were building one of our buildings, it was a public facing building and we said to them, Everything has to be clean.

And I showed up to supervise one day and they were just blithely putting on this stain and almost all stains contained viruses. And I went ballistic. I was like, What are you doing?

You can't do that in this building. They were like, But we need to stain. And I said, Not with that. So it's so subtle. I mean, it's everywhere, especially around construction materials.

Everything has chemicals in it. So – So where do we start? Because if we just stop eating tuna fish and we're done and. – Well, – How do we know? – I mean, yeah.

So I'm on the board of a group called the Environmental Working Group, which is a really amazing organization that is research driven, data driven organization that uses existing databases and other resources to identify where we're getting our exposure to all sorts of environmental toxins.

And they provide practical consumer guidance for what to buy and what not to buy. So whether it's your household cleaning products or your skin care products or your sunblock or what food you're reading, what vegetables you're eating, what meat you're eating, when fish are eating, it basically provides really in-depth consumer guides on how to reduce and avoid most of these toxins.

So I find that really great. They have the dirty dozen for example, which is the troubles contaminated fruits and vegetables with pesticides and chemicals and the clean 15, which are the least contaminated.

So you probably never even Nick Greiner, strawberry if it's not organic, but you probably eat a banana or an avocado, right? So it's just like that and things you might not think about like celery.

Celery is terrible. So, you know, I think we really have to be very aware of I mean, if people are, for example, juicing non-organic celery, it can be a harmful problem.

I think I think we we can use those guys to really help us to reduce our overall exposures in our homes and in our environment. And we can also learn how to upregulate our own detoxification systems and do that in a way that's attached to sort of on a daily sustained basis, which I do, because I know I've had, you know, mercury poisoning.

I have a very sluggish detox system. I don't upregulate my glutathione, which is so important for detoxification and methylation problems. So I'm very proactive about personalizing my own detoxification biochemistry, and we can do that through some simple dietary inputs and supplements.

– I'm like, You just hit on something that I think is really critical and sort of the foundation of all functional medicine, which is that you need to know your data test on gas, right?

– Yeah. – So you just referred to essentially some simple genetic testing and some simple evaluations that just really. – Yeah. – Great insight into. – Yeah, yeah.

– Like we're loyal to our toxins because of our genetics, but yeah. Can't get rid of it. So – Yes, absolutely. I think that's important, though. There are general principles that apply to everybody and there's general approaches to detoxification, which is reduce your exposures, you know, include foods that upregulate detoxification, drink plenty of water, have regular albumin, try to get sun as in really simple things I think are universal.

But then there's for example, for me I need to make sure that I upregulate my glutathione and I think it is assisting. If they put gas in a mixture of selenium and I have make sure that I'm eating cruciferous vegetables every day, that

I have an enzyme that I'm very aware of this and also take methyl methylated support.

I take the right supplements. And so I think everybody is a little bit different. But but there are some basic principles that work for everybody. – Yeah, it's like the common theme that runs through humanity.

I mean, we all need D. – E Yeah, well, I mean, but the thing you're highlighting is we all are different. We all do need, we have similarities and we all have differences and knowledge and knowledge is power.

So getting here to stand what, what's right for you is definitely not going to be the same. That's right. For your neighbor. Anybody else? It's really important to keep that going – Totally.

So we have the bucket of reduce your exposures.

Reducing Exposure and Supporting Detox

We have the bucket of learn your individual needs by working with a functional medicine provider. Obviously pick big plug for functional medicine, but when people start to clean things up, what do they notice?

Like what can they experience at not just pulling off the toxins but really pulling out the toxins? – Well, it's different. Depending on the person. So, you know, I always say if if you don't have a headache and aspirin doesn't do much. Right.

So I think if you're sick like I was and you get rid of the heavy metals or mercury, then you will notice a big difference over time. And for me went from basically being one step away from being on disability for the rest of my life to being recovered and highly functional.

I'm doing it right once and that's a I mean, I was riding my bike 100 miles a day and literally the next day I couldn't walk up the stairs like something just shifted.

And my system and it was, you know, there's a philosophy of sort of this this sort of overload syndrome. So your body can handle a certain amount until it can't.

And then you you fill up that you fill up a glass until it overflows. And so the same thing with your body and toxins, your body's able to sort of manage it and then boom, all of a sudden it can depending on you.

And so some people who are symptomatic or problems with remnant toxins will have huge improvements in their health. I mean, whether it's I just go see the list of patients in my head with this reversing Alzheimer's, autism, eczema, chronic colitis or autoimmune diseases.

I just just in tremendous depression, you name it, when you start to work on people's detoxification and if they have high levels of these compounds in their body, they do see a big, big difference.

– Now, I want to highlight, because we in this summit, we talk all about where the problems are and we want to really make sure to really concentrate on there is hope that people are going to get better and there's a lot to do.

You're not stop being sick. – Look at me, I was so sick. I couldn't. I couldn't. I could literally not even read my daughter who was a little kid. I story out loud and understand it.

I had really I could read it out loud, but I wouldn't be able to kind of digest what it meant. And it was that's how bad my brain was to having written, you know, 18 books since then.

And I think you missed the last one. That was 15 times The New York Times before I got updated my bio, because it just came out a couple of weeks ago.

– We want to talk about that. Well, actually, let's let's move a little bit into that, but slightly. So what what do you

recommend? Like, okay, so let's say you're a healthy person, but in terms of prevention.

– Wait, I got to go back, I mean, because the thing that you said that was so amazing, here's the problem. If you have brain fog, you often don't know you have brain fog, you just know that something's wrong.

So as an outsider to people who read something and can't retain what they read or can't remember things or can't just forget right away or think they're going crazy because they can't remember.

I think they're getting early. – Or they think they're getting older and it's okay. – It's so all of those things are signs that something's wrong and it's worth an evaluation. Okay.

Having said that, now we can go back to what you were saying. It just was we have to talk about that. It's not normal. – No, no, it's not normal. And for the people that want to.

Well, let's talk. I mean, let's talk about your book because young forever, like I'm there, I'm with you. I'm in health span versus life span is what we talk about day in, day out.

So how how do toxins relate to lifespan and longevity and. – What we think of as aging? – Oh, great, great, great point. So, you know, my book, Young Forever, I talked about the way in which longevity and health are all connected, disease are connected to these fundamental things that go wrong as we get older.

They're called the hallmarks of aging. And there's was nine, now there's 13. They're basically these systemic processes that we know very well in functional medicine, from inflammation to change in the microbiome to mitochondrial dysfunction to dysregulation of insulin.

And all these things that we know we've been talking about for decades in functional medicine now are kind of distilled into this beautiful framework.

The question is, you know, from a perspective of traditional longevity, scientists are focused on, okay, here's the hallmarks of aging. Let's treat them, let's find a medication or a supplement or intervention to modify these hallmarks.

And from my perspective as a function medicine doctor, I'm always thinking about the cause. Why so the hallmarks of the cause of aging, the hallmarks are driving all age related chronic disease from heart disease, diabetes to cancer, dementia.

What is causing those hallmarks to become accelerated? And it's really quite simple from a molecular medicine perspective, everything that goes wrong with you is either too much or something that your body doesn't like or not enough, something your body needs.

So you need to get rid of the bad stuff and you need to put in the good stuff and that's essentially the practice of functional medicine. – Yeah. – It's so essential to all of us.

And you know, I always used to say understanding functional medicine is hard practice. Practicing it can be relatively easy because it's about being a detective and finding out what is on the list, the bad stuff to get rid of and what's on the list of good stuff to get in.

Toxins, Brain Fog, and Longevity

So one of the key things besides food and stress and allergens and bugs and infections that is driving a lot of dysfunction in longevity is is it affecting our epigenome is the whole field of environmental toxins.

So our epigenetic programing is determined by our lifestyle, environment or diet toxins and that can be highly modified by changing our exposures we call the exposure.

And so I think when we look at things that are driving so many of the dysfunctions, whether it's increases in in some resistance from bisphenol A or whether it's problems with, you know, mitochondrial damage from environmental toxins or whether it's the ability of environmental toxins to upregulate inflammation and things like Kappa B, or whether it's the way in which, you know, animal toxins influence the microbiome or with how they cause DNA damage or how they cause, you know, telomere shortening.

I mean, you just go through the list of all the things that we know are related to longevity and aging. Toxins play a role in all of us. So if you want to live a long, healthy life, part of the key is to reduce your exposures and to eliminate these toxins.

– So what are your top top tips for people then who say, okay, I'm ready. Sign me up? How do they where do they start? What are the most impactful things.

– In terms of longevity or environmental toxins? – Right. Well, they kind of go together. So so I would say first for toxins and then for longevity. So let's separate them out.

– Yeah. I mean, I think I think as I mentioned before, that a key strategy is to to really be diligent about reducing exposures. And the Environmental Working Group has incredible guides.

So that's that's the go to place to learn where you're exposed, how you're exposed, what you're exposed to, and how to dramatically reduce or eliminate most of the exposures you have.

So would be looking at the food you're eating, things you're putting on your body and skin, your household cleaning products, as well as your how to filter your water.

Maybe an air filter, just reducing your overall load. It's about reducing the toxic load where can get rid of it. We're all basically toxic waste dumps.

Second is, how do you upregulate your body's own detoxification system and making sure you're regulating with the right foods like vegetables, the onions, the right supplements, and also making sure you're eliminating properly putting, you know, water and fluids to pick it out and poop it out and fiber and sweating like Sonya's all very simple practices that you can include in your diet.

I do this as form of habit now, like anything else, like brushing your teeth or whatever you do, making your bed, you just kind of build this stuff in your life.

So for me, it's just a part of my regular routine. – But I have to say, I always say to people, it's it's a journey, it's not a destination because you're never going to, quote unquote, be toxin free if you continue living on this earth.

So it's really continuing to mitigate and remove and reduce. And as you walk through the process, make an improvement, level up, as you run out of something, get something better.

But it's a process. You don't throw everything out in your house and then buy everything new. It's it's really it's inching along at times. And I would say Environmental Working Group is like my home home management bible of how to what do I do and what do I buy and what do I not buy?

– Do they have an app? – Course they have an. App – And they scan the QR code. – You can scan the codes. Yeah, that's fantastic. – Yeah. Yeah. – So so you mentioned sleep.

Which is – Oh, sleep is important. That's one of the ingredients for health for sure. I mean that's. – Yeah. – And the lymphatic detox at night where your brain gets to detox and if you're not sleeping.

– Yeah, actually, not just your brain, but your whole all of your detoxification systems are upregulated through the time when you're sleeping. So if you want to look at the body's busy work of detoxification, a lot of it has to do with what happens when you're asleep.

And the need for increased sleep in this culture is massive. We have lost an hour or two of sleep over the last 100 plus years and we need to double down on being sure we have high quality sleep and that we take care of our biology and let it detoxify and that you're mentioning the compounding system, which is a lymph system that cleans the brain really important or that and I think we we need to be very diligent about making sure we get enough rest.

– And that was the the top benefit to COVID for me was that I was asleep. I got I got like an hour and a half more sleep a night. And until COVID hit, I didn't recognize how much I needed that sleep. Wow.

So it's it's it's become almost sacred, like, no, I actually need to go to bed, and I can't do that in the morning. I need to. – That's amazing. – Yeah, it was, that was the top benefit, too, because there's always a downside and an upside to everything.

And the upside was certainly around resting and being rested, which was shocking to me. – Yeah. So then how do we. I always wanna know how since we live in this age and I think I've listened to and you want to be at least 120, I want to be there with you.

Food, Fasting, and Muscle for Longevity

So what are the 3 to 5 things that will help us get there? What were the top things? And obviously everybody needs to. Your book is amazing and we need to – Read the book.

People go by the book. I you got a question – And what are the kind of the what are the main things people should be looking for? – For longevity? – For longevity.

Because you've done the foundational work, right? – Yeah. I mean, I think, you know, obviously it's a complex thing, but if I were to sort of give the sort of highlights, there's a lot of stuff and complete roadmap from someone who just wants the basics to, you know, what's coming on the frontiers of medicine from everything from what you eat to stem cells and even gene editing.

So I think for me, the real key is food. Food is the biggest wherever the four main longevity pathways in the body, more insulin signaling sirtuins and ampk.

And those are basically pathways that are actually conserved that regulate over 3000 genes that have to do with longevity. And if we activity's genes in the proper way, we activate these pathways in the proper way, we will basically impact everything that has to do with longevity, including all the other hallmarks.

So the things that screw them up are pretty simple too much sugar and starch, too many calories eating all the time and not actually giving our bodies a rest from food.

So so from a prescriptive point of view, it's getting really very, very low glycemic diet, really low starches, sugar, lots of good quality fats, lots of fruits and vegetables, good quality protein.

We'll talk about that in a minute. And then being sure you're giving your body also a restroom eating. If you look at the data on autophagy and its impact on longevity, you need your body to rest from food.

So 12, 14, ideally 16 hours a day will give you an eight hour eating window or a ten hour eating window, and that will allow your body to start to repair and clean up all the damage that happens as a part of normal metabolism.

So we have this basically embedded in a longevity system in us and we need to learn how to turn on and not constantly interfere with it, which is what we're doing now.

So the way to do that is by eating in the way I just mentioned, by giving your body a 14 hour break between dinner and breakfast, maybe even 16, and then when you re feed, this is really important.

The re feeding part is important because when you're not eating, you're cleaning up and autophagy and recycling

all these little parts and you know, just basically doing the cleanup crew when you re feed, you have to take a load of protein.

You probably need 30 to 40 grams protein in the morning after as your first meal because that's going to activate muscle synthesis and protein synthesis, which activates all these things you need to build muscle, which is key for longevity.

So I think protein is really key. I think many people believe that being a vegan is the right way to live a long life. And I think there's really a it's a flawed perspective because it has to do with eliminating meat, to not activating mTOR, but you have to activate more to build muscle, which you need for longevity.

So it's kind of a paradox. Key is to fast and feast. So basically and then lastly, I think the key thing you need to focus on is resistance exercise more than anything else.

Muscle building strength training is such a key part of your function. Keeping your metabolism healthy because muscles not just are moving your bones around.

It's a metabolic organ, it's an endocrine organ. It regulates your blood sugar, your cholesterol, your cortisol levels, your growth hormone levels, sex hormones, all influenced by whether or not your muscle has been turned to fat, which happens as we age.

So keeping your muscle is really important. – I have a potentially controversial question, but this is something that I'm actually interested in, because when you talk about protein breastfed meat is loaded with omega three, which is anti-inflammatory.

And part of the problem with commercial meat is that it's loaded with omega six is that's fed by grains and loaded with the sexes and they're pro-inflammatory.

– So basically the cows are what they eat too, – Right. – We are – basically what they were. – So so the question for me is, what if you have a nice piece of grass fed meat beef and a nice piece of organic chicken and chicken?

The only way you raise chicken is you give them. Even if it's organic, you have to give them grains. So I've always wondered like and we always traditionally think about white meat as a quote unquote healthier meat, but it is full of omega sixes.

Any thoughts on this? Because I really like. – Yeah. – I'm very curious myself. – Can you stop following all of that. – Well, let's see what the – Duck dinner is sacred.

– Totally. I totally I think the reality is that that we have really messed up our food supply. So actually there are pasture raised chickens that feed only on wild seeds and stuff that's in poop.

So the bugs rigid. Yeah. If you were on a farm, what they do is they, they bring animals into the pastures and then they let them do their thing and they graze and they move them and they move the chickens and then the chickens will then eat all the grubs and the worms and the poop and and that's basically how they can be fed without having grain.

There are also feeds that actually increase the omega three fat content that you can give to chickens as well. So I think there's there's ways to raise them.

But you're right, I think there's a really high levels of omega CS three omega six is in chickens. And I think there's high levels of of it in in feedlot animals and there's a beta omega fatty acid profile in in generally raised beef or animals or even wild animals.

So I think that's really important. – Mark, I have a question on another topic. Is this complete for you? – It's complete enough. – What I mean – That we have to find where we can get the regenerative treatment.

– We're just going to eat more meat. Okay. Grass fed. So my question is, where do you come down on people who are treating for mycotoxins and metals and using the fast period to take their binders?

Because on one hand it sounds like a good idea, but on the other hand, you put something in your mouth and now you're making your system work.

Practical Detox Tips and Where to Find Mark

Do you consider that breaking the fast? It's not food. It's you know, fiber, charcoal, clay. – Well, I think if you it depends how long you're fast. Is that what you're doing? Right.

So I think I think most of us, you know, can use electrify fiber in our diet. And fiber is really important for elimination of toxins. So I think it's important for us, especially if we're doing heavy metal detoxifying doubling down on the amount of binders we're taking to make sure that's excreted from us through our bowels.

But I think that if you're just doing it overnight fast, I think eating protein in the morning is really important. You can add extra prebiotic fibers and fibers here and binders to your shape.

That's fine, but I think I would not be too worried about that. – Know I've had people ask me and I'm like, I don't know, you're not eating well. – Right?

But it's also for a short period of time where they're hopefully where they're actually eliminating everything. And then they can go back to. – I think it's like construction.

It takes longer than you think and it costs more money than anything to get rid of your toxins. It's like a construction project right now, but it's legitimate.

Okay. So is there anything we haven't asked you that you really want to share with people around young forever, around optimizing themselves, anything we haven't asked.

– I think people need to understand that your body has a built in detoxification system that we need to activate and pay attention to. You need to make sure you are eating foods that are boosting your detox pathways, which we mentioned.

You drink a lot of water, poop daily or more, making sure reducing your exposures, making sure you're sweating and, you know, sort of exercise or soreness as a way to help mobilize.

Then making sure you're taking the right supplements to help. And I think boosting glutathione is really key in this like energy loss should be a staple for most people and has a lot of benefits.

– Awesome. – Where can people find you? Obviously they should by the book. Where can they find you by the book? Follow you. What are your sites? – Yeah, they can hopefully find me everywhere.

– I think you are everywhere. So I don't think it's hard. – drhyman.com and then there's lots of places where you can find me on social media. Dr. Mark Hyman And obviously my podcast, Doctors Pharmacy and I have a practice center, wellness center in Lenox.

– Thank you. – Yeah, this has been amazing. – This is been fantastic Mark, thank you for joining us for this episode of the Environmental Toxicants, Autoimmunity and Chronic Diseases Summit.

If you're just tuning in, you missed an amazing speaker and you need to go back and listen to it again. This is Mark Hyman and all of his credentials are at the beginning.

You should go listen to it, Mark. Thank you for being here. This is really, really fun – My pleasure. And it's given people practical tools on how to get started on optimizing and thriving, not just surviving, but thriving.

– Thank you. Thank you. It's great to be with you both.