Discover Your Immune System's Environmental Triggers Transcript

(Transcripts are generated by AI and may contain errors)

Introduction and Guest Background

Welcome back to our Reversing Mast Cell Activation Syndrome and Histamine Intolerance Summit. I'm your host, Dr. Meg Mill. And today I'm joined by my esteemed colleague, Dr. Aly Cohen.

She is the co author of the bestselling consumer guide book, Non-Toxic: Guide to Living Healthy in a Chemical World She's also an educator and on a mission to empower the next generation to live a safer, smarter life.

Thank you so much for joining us, Dr. Cohen. My pleasure. Thanks for having me. Absolutely. I am so excited to jump into everything. Mast Cell Activation syndrome and Autoimmune Connected.

There's just so many great things we're going to talk about. But before we get started, I just love to share people's stories and just give a little context about how you kind of got to where you are today and what you've been working on.

Well, yeah, I some people have heard this story before. I talk about it quite a bit, but I will tell you, I would not be doing any of this work in sort of environmental health and how it relates to the immune system.

I would just be your, you know, conventional Western rheumatologist, had it not been for the fact that my golden retriever puppy got really sick maybe 15 years ago and at four and a half develop autoimmune hepatitis.

And I went through a really, you know, interesting journey trying to figure out what made him have that, autoimmune disease. And I'm an autoimmune disease specialist, so it was rather sad and ironic.

But, you know, the idea is that, you know, I was heartbroken. I was so interested trying to figure out answers. And the more I looked into what may have made his immune system get triggered and have a whole host of health problems, I was learning about the lack of regulation in the substances that affect humans, plastics and, you know, pollution, contaminated drinking water, perhaps, you know, you know, pesticides and flea and tick him from, you know, so it really was the impetus for me to go in this direction.

And it's really led me to some incredible places to do some really interesting work. So it's just been remarkable. And I, I kind of dedicate all my work to my dog Treston, who passed time, but yeah, I guess. Yeah.

Well that's great. I love that we're bringing the animals in too, because we do love our animals and they we can learn a lot from them. Do. Absolutely.

And, you know, listen, if you don't have a why to do the kind of work that a lot of us do, and it applies to everyone whose work, you know, is difficult at times and lonely at times and really just, you know, you know, you have to find your community.

But, you know, you almost need a Why. At least I know that I would not be doing this had I not had a real heartbreaking Why, sad to say, but it's true.

And so, I think it applies to a lot of people in their journeys.

How Mast Cell Activation Connects to Autoimmunity

You know, you have to have to be affected and really to make change. And change is not easy. So, so that really changed my philosophy on medicine. on my medical training, understanding what we really should be learning in medical school.

you know, it's it's been an interesting journey. Absolutely. Well, we're going to talk about the immune system today. So and sometimes when the immune system isn't serving us in the way that we want it to, and so can we just start talking a little bit about how mast cell activation disorders can relate to autoimmune conditions.

And kind of where that intersection comes in. Sure. Well, you know, when I was thinking about this topic, you know, because of course I see patients with all types of immune system disorders as a general heading.

and then you can divide them out in many different ways, you know, whether it's the cell type that's affected, like, for instance, mast cells that come from bone marrow in general.

And that's sort of like the starting cell that goes into different types of cells. you can have other type of immune disorders where you're fighting against something outside of the body, like an infection, like chemicals that we'll talk about, you know, food allergies.

So it's coming from outside and your body's attacking it when it enters. And then there's this immune system component where it's not at the cell cell level.

It's not at sort of an attacker, but it's also looking at the body as the enemy. And that's the autoimmune type of immune system, you know, process. And so there's lots of different ways to break down the idea of immune system response.

it just depends on on what framing we're looking at when it comes to mast cell activation syndrome. and I was really trying to wrap my head around how to talk about this today.

you're really talking about the body is pissed. I mean, I hate to leave it. It's such a very basic terminology, but but it's really true. So much of the immune system disorders that we're all managing, and I mean, all because even if it's a low level subclinical, not, you know, showing up as a rash or anaphylaxis is that we have this immune system, physiology that has been with us for millions of years.

It was beautifully designed to react to things outside of the body that it didn't like. And when it starts to see things it doesn't like, the immune system does its job. It reacts.

And the question is, is it overreacting to that, trigger or that outside source? or is it just doing enough to maintain the health and wellness of the human body and get it back to normal?

you know, or is it undershooting? And with mast cell activation, it's been really linked, as we you've discussed with other guests, to sort of this periodic ongoing inflammatory response, and can be diagnosed, that we have some good information on trip taste levels and understanding how to do that at baseline and, you know, successive levels, but ultimately comes down to the body being pissed off.

And I think what we need to do as practitioners with so many illnesses this go to the upstream reason why. What are the things that affect the human body?

and it could be a number of things, of course, but what are those things that we can pinpoint and either remove or reduce, so that the immune system can quiet itself down to what we call homeostasis, or a very balanced place where the energy is not being exerted to constantly be on.

And that's the problem with a lot of mast cell activation syndrome patients, is that their immune system is just not quieting down, just like with autoimmune diseases that are not controlled, through lifestyle or supplements or medication, our immune systems constantly are on new.

And I speak the same language here because I see, you know, we're often looking at it at what can we do on the top level. So, you know, we're looking at the mast cell stabilizers or the antihistamines.

But if you never address those root causes, if you never address why you're activated, you're just, you know, really

searching. You're chasing, you're mandating.

You're just kind of in this place where it's not really going to resolve. Exactly. And look, it's not to say that these treatments because there's not a great, you know, end all, be all treatment.

we know what helps with rash and urticaria and, you know, inflammatory conditions, NSAIDs and Advil and Motrin and all those can do a decent job, but they're downstream.

We have a whole host of drugs that I use in rheumatology that are, you know, go from what are called demons or like methotrexate and, and so as alanine and plaque, we know all the way through to biologics.

So we have a lot of really good drugs that are available. And I say that because there are good drugs, but they don't always have to be used reflexively.

That's what an integrative rheumatologist like myself really figures out, is what is the least amount of medication that we need to use to do the job we want to succeed at?

Because with every medication, often even with supplements, if they're not done correctly, you can have side effects that actually add fire to the problem.

You can actually add more issues to the problem, because you may not realize that those side effects are related to the actual medication or therapeutics versus, you know, to the underlying issue.

And so it gets very murky when you add too many things in downstream for, for kind of mandating the problem without doing the heavy lift of figuring out, well, what's causing the problem in the first place.

And that goes a lot to the environmental health, questions that practitioners really need to embrace. It goes to the level, the amount of time that we spend with our practitioners, which is really not conducive in, in our current system, unfortunately, we all know 15 minutes in and out is where we were slated for insurance based, therapies, which is really sad.

but really the money is in the history. The money is in the story. And, and that's what I try to teach people is be a detective, because the more you ask, the more you have information that'll get as close as you can possibly find to a, you know, and, upstream, trigger or, you know, I wouldn't say cause, but association to your symptoms.

Yeah. And sometimes it's, sometimes it's more than one. So we'll have to be that detective. Be very patient and you have to try sort of one at a time is if it's like, you know, an end of one person who's the only experiment in the room, because they're so varied and different by their diet and their lifestyle and their upbringing and their C-section or vaginal or antibiotics as a child, or major infections or car accidents or child childhood trauma.

I mean, the list goes on and on for all the things that we couldn't even control when we were young. Right?

Environmental Triggers and Immune Dysregulation

I mean, I eat more Cheez Whiz and Oreos, and I was just thinking how much baloney I had when I was a kid. Like more junk than anyone could possibly imagine.

But back then, we didn't know it was drunk. And we set the playing field for the future of our body. Really, with a lot of these choices that we may or may not have had control over.

But those stories, that information to me really starts narrowing in on how to test for the right things and how to narrow in to get that history to really knock off the confounding, you know, potential issues.

Yeah. So, yeah, it it's interesting, even in my own personal journey, I was the kid with a ton of allergies. I had the sensitivity to everything. I couldn't be around smells.

We had to take my clothes out of a dresser because I couldn't even stand the smell of the dress that made me nauseous. And all of the eating the baloney.

And that, you know, the bad food and all those things. And it just grew and grew and grew until my late 20s, early 30s, when all the symptoms started just hit me.

But you, when you're not seeing, we often aren't seeing those little steps that add and add and add until the breaking point went, oh wow, now we can't eat anything.

We can't tolerate anything. We're anxiety's through the roof. You know, you're starting with all these immune issues. Yeah, because a lot of times, you know, I look at, you know, I studied anthropology, anthropology in undergrad and it's become a major.

you know, area of research for me even now in medicine. And I think it's one of the many, but certainly one of the top three, you know, courses or, training, component that I think is missing in medical school.

we have to understand where we came from. Millions of years of genetic, templates that have been essentially stable for millions of years, 4.5 million years, really?

and then all of a sudden, we're in this world, which we don't ever sit back and think about. I mean, I'm one of those people until I had to. But we're in this world now that we've had over 95,000.

I mean, it's gone up from what I've last wrote two books when it was like 80,000, 85,000. Now we're like 95,000 industrial, commercial chemicals that are in our food, our cosmetics, our cleaning products, our textiles, our furniture, that our feminine care products.

my kids Cologne. Okay. but all these toxic chemicals that we didn't know were toxic, but now we do are in our lives. They get into our body and they get into our breast milk and our blood and our urine and all that.

And what's interesting is this only happened over the last 75, 95 years, and yet we've had 4.5 million years to develop a working, incredible immune system and other components, the endocrine system and all these sort of intricate, systems that work beautifully together.

They inter communicate, which is why, you know, with my next book, I'm really going to be talking about how the immune system effects, happen along with endocrine effects from chemicals.

And we really only focus mostly on hormone changes. But I'm going to dive right into the sort of why we have an epidemic of immune system disorders, and connect that directly to our environment, as well as lifestyle.

But the idea is, I think we all have to step back and realize what we're doing to our bodies that we are not trying to do. But we believe since the government put them on the shelves that these products are safe, that these chemicals don't mean anything, that they would never put them in in our water.

We would always have safe, you know, regulations for our water system. Like if we got into it, I swear it's really quite shocking. But our country, compared to so many, not so much third world country, countries with their regulations because that's a whole different discussion.

But really comparatively to European cultures, to Asia, many of these places have so many more safeguards than we do, in regards to the quality of our food and water systems and personal care and cleaning and baby products and I think we don't realize that that is actually now affecting our health because our body's immune system has not seen these chemicals before.

So it looks at them like they're enemies and including mast cells, which are very associated because they hold histamine to allergic type reactions and it all makes sense if you think about it.

But the question is, well, how do we remove those things in a really reasonable way? And that's what I've dedicated my work towards, is not just the problem, which we're starting to all get an idea.

Unfortunately, if you're sick or family members are sick or at younger ages getting sick, which is what I'm seeing. But what do we do about it? What are the really practical, easy, cost effective ways to reduce the things in our environment that we intake, that we touch that doesn't cost us a lot of money, but makes a whole lot of sense.

And that's what I like to share with folks as well. Yes. Yeah. And I'd love to jump into that before we jump into, because I think that that's that's where we need to get the juice and focus on what to do.

Do you see, before we dive into that, do you see, if there are, are there any autoimmune conditions specific that you see commonly associated with mast cell activation syndrome?

Well, you know, mast cell activation by definition is relatively rare because it's just something that's newer to the I would say the the, you know, the world of medicine. And by the way, we still have many diseases that we have yet to discover.

Long Covid is relatively recent, right? We didn't understand that. We still don't understand it. So just because a diagnosis doesn't exist doesn't mean it doesn't live.

and I think that's one thing to think about. but in terms of associations, there's a lot of, genetic mast cell, related, issues that are mostly identified in children.

I'm not a pediatric rheumatologist, but I know for sure that there's a lot of, you know, mast cell, genetic mast cell. you know, components that are really diagnosed much younger because the symptoms happen that much younger.

and, you know, becomes something of, of a real issue even at newborns and, you know, toddlers, there's cytokine storm that we might have heard about a lot of.

And cytokines are basically a component of the immune system. We have lots of cells that manage the immune system. And we have two generally two different sets of immune system cells.

Technically, we have the innate immune system, and we have the humoral immune system or the the part that makes the antibodies. So we have a very old system, and we have a more newer system through evolution.

And the fact is, is that they need each other. They communicate with each other. they, you know, sort of one hands off some stuff to the other and then creates a different type of response.

So it's very complicated and probably more complicated than this conversation. But what we now know is any different changes in those cells, whether it's an innate genetic, polymorphism of mast cell development that comes out of the stem cells of our bone marrow, or turns from stem cells into those mast cells that are have problems versus what we're now seeing at older ages, where we're developing these symptoms later on in life.

That is something that you might argue more environmental versus genetic as a basis. Yes. Yeah. Thank you so much. And thank you for clearing that because there are different you know that genetic component versus people with the mast cell activation syndrome which are generally getting these symptoms developing later.

And you're not. Yes. And more seeing that more from exactly what you're saying. The underlying infections, toxins, traumas, things like that that are that people are experiencing.

Now, I would love to jump into what we were talking about and, and get into where people can start, because that's what we need to really say, like, okay, what can we do?

We're identifying these things and we're gonna start to make changes. Yeah, I'm in the process of developing a

methodology. I'm working on it for the new book, which will be out in June, actually.

But the idea is, since I'm going to be writing curriculum on this process, you know, how do you take this enormous topic of chemical exposure, which, again, comes in many different flavors and different aspects of your life?

Some of this stuff is necessary. Some may not be, you know, you know, cosmetics and personal care products. You can switch out. But hey, if you go to the dentist, you can always change out what they use for root canal.

You know, it's there's a lot of things that we can and can't control. So that's one way to really start off. The question is what do we have the power to change in terms of the quality of what we use in, on and around our bodies?

And, one of the things I think about is, well, what? You know, first, doing a survey of your body and your life experience on a general day to day basis.

What do you drink for coffee and tea, or do you drink anything in the morning? Is that water filtered?

Practical Ways to Reduce Chemical Exposure

Is the tea, you know, organic, USDA organic, which I will tell you now is the only, if not the best, but the only regulatory oversight we have in the food system at all in the United States.

So I really do weigh that out quite, heavily. But here's the hack. Anyone can afford USDA organic foods if you at least think about getting frozen. USDA organic foods, which maintain all of their nutrient value.

They're accessible in every big box supermarket in the country, and they're very, very cost effective. So just transferring those frozen items into glass or stainless steel, you are literally getting all the nutrient value which we desperately need to fight off chemical, effects on our epigenetics, on our genes.

And I can go into that as well. But then you also have less pesticides and all of the regulatory oversight of USDA organic that really removes or doesn't allow, even in the soil, that these produce is grown in.

so it doesn't even uptake into the, the veggies that you're or fruit that you're buying. So USDA organic is key. But when you think about you know, kind of what you eat daily, what you drink is the food, what filtered is the food quality the best you can find within the reasonable price point?

you know, can you batch cook, can you do a lot of things and that really cuts down costs. Can you buy in-season? can you, you know, use your local farmer's market and find out how they grow their food, even if it's not organic?

and see whether or not there's, there's benefit there to understanding and knowing your local farmer and what they use on their plants. You don't always have to be an organic farmer to do to do good.

So I look at this as you start with the survey of of the best things you can come up with on a daily, habitual basis of what you do with your body, cosmetics, that you use, some of your cleaning products, some of your favorite drinking habits, some of your favorite food habits.

And I say start with the low hanging fruit and think about those items first, because it's not like it's a birthday party or you're going out for a weekend in Vegas or something.

That's not every day. Well, you could argue, you know, life is life. You got to enjoy life, and sometimes you can't be strict. But when you start with the big heavy hitters into the body, like drinking water, that's the top of my list.

Food quality, those things you do every day, you can't miss a day. And those are things you want to try to make a little bit cleaner if you can. Okay, I have a nuanced question for you, but you mentioned something and I thought, oh, I'm going to ask this.

so, you know, we're looking this is where I feel like sometimes it gets so complicated because, you know, we're looking at plastics. and then we're looking at organics.

So you're buying the organic fruit in the plastic bag. So you were saying, when it comes into your house, to take it out of the plastic bag and put it in a glass or stainless steel container in your freezer.

Even. Well, if you can do that. I'm a realist, and you know, I. I have a busy life with two teenage boys, so the odds of that happening are low in my house.

But ideally, yes, what I would say is more important is not heating any food that comes in frozen package in in a freezer, in, anything but glass or stainless steel, because that's where you have the most leaching of chemicals into the food you're cooking.

Just like you. If you were using a, not as, you know, a nonstick pan which has a lot of PFOA coating, which is the floor alkyl group of chemicals that keep things slippery.

also makes raincoats waterproof, that makes, couch sprays, you know, stain guarded and carpet stain guarded. These slippery chemicals happen to be very harmful for the environment.

They stay in the soil in the environment for decades, if not more. They also stay in our bodies, you know, for very long time. And so, you know, when I think of making changes, I say, you know, look, think about the foods that you can control in terms of how you cook it.

One is, you know, transferring from plastic, but the other is not even to cook in pans, you know, just go out and get one stainless steel pan that's, you know, really solid with no any kind of coating that it's claims to be a green pan or any of that sort.

I don't I don't know how to get those. So, I just say go go old fashioned, but to your point about the irony or I should say the, the, you know, hypocrisy is that almost everything that I love that's organic is in plastic containers.

In fact, I'm waiting for the very last water bottle to come to my restaurant table. That's not glass. There's only one company. It's Italian that I know of that still has glass bottles.

Even my Evian, you know, which is supposedly supposed to be cleaner, is all in plastic now. So, you know, it's a sad, you know, state of affairs. So it kind of goes to this idea that if you can make it at home, like clean water and bring it with you, like I do to restaurants, I mean, some might think that's a little over the top.

I don't I don't know where they're getting their water if they put it on the table. I don't want to always, you know, have bottled water if I don't have to.

but although there are companies that make reverse osmosis bottled water, and I think that's something and I post on this on the smart human, which is my platform little bit of hacks as I go through life, whether I'm in the airport where I go and what I'm looking for and how to read ingredients on even a water bottle.

look what I wanted to make a point about his eyes as I was researching some of the chemicals that affect mast cells that actually stimulate mast cell granulation and release of histamine and causes inflammatory, you know, component, I will name a few that people in your audience would probably recognize, for instance, bisphenol A or BPA.

My coauthor for two books, Fred Bohm saw, was remarkably, responsible along with his many of his colleagues over 40, 50 years ago, of figuring out that bisphenol A was estrogenic, that it had low level estrogenic properties, that it could cause a whole host of hormone disruption and different, physiologic changes.

but interestingly enough, as of this last paper I was looking at this morning, 2021, we know that BPA, even the first floor apples that I mentioned, the slick, sticky, I should say slick, chemicals that are on nonstick pans and stuff like

that.

They work in very much the same way on mast cells. There's wonderful papers showing this when they, you know, took, bone marrow cells from, mice in vitro.

and they also took human cells and they expose them to these types of chemicals. And it turned out that BPA and PFOA, which is one of the 5000 PFOA chemicals, there's a huge class of these nonstick, chemicals.

Those were actually very similar in the way they acted on these cells. And so, and they were both quite, you know, effective at instigating the granulation and what they call a carcinoid production, which is inflammatory cell production and cascade.

So, so we now know with some very reasonable, well done papers, that these are just some of the chemicals out of the thousands that have the ability to affect the normal functioning of the immune system. And, and then we just have to figure out how to remove those items.

Right. Like I said, nonstick pans. Boom. You're going to take out a big load that gets into your food, especially fatty foods when you cook in a nonstick pan, if you give up canned foods and you switch to frozen, you're going to remove a lot of the bisphenol A, the plastic lining of those cans, even the organic cans.

But you're going to give up a lot of that load into your body. So these are habits you can swap out. And believe it or not, we can see different levels in both, the blood and urine for those chemical groups.

Yeah. And I think just if it feels overwhelming, just do one thing at a time and just make those changes as you can. One I would say one product is a time, you know, when you're done with a product, switch it out.

I, I did take years ago, you know the day and and pulled all the plastics out of my kitchen and my mom was like, what are you doing? I'm like, we're going all glass that.

You know, sometimes you have to make that big shift. Or just if you're not ready for that, switch it out slowly. Yeah. I mean, the guide book that we wrote, Fred and I, in 2020, which is still incredibly, you know, it's it's perfectly useful, really goes through how to go about this process of removing these chemicals in a very reasonable way.

There's one chapter on water, one chapter on food, reading labels, understanding where these chemicals lurk. There's one, you know, chapter on personal care.

I even fought very hard for a, a refrigerate or list of about 15 things that people could start with, or at least work their way down in a very reasonable way.

with some big ticket items that everyone could relate to. But that one little refrigerator list I thought was so helpful because it's such a big topic and people don't know where to begin.

Resources, Science, and Final Takeaways

That book was designed to help people like myself who didn't know any of this 15 years ago, who literally had to put it together on my own, over seven years to really create enough information that would be so useful.

and I suggest, you know, if people want to start this journey, the book that's it's available on Amazon. It's called Non-Toxic: Guide to Living Healthy in a Chemical World so Non-Toxic has been a remarkable, you know, great resource.

It's a bestseller. It's just no endorsements, no branding, because that's not what I do. We don't we don't share brands because brands change, formulations change, companies get bought and sold.

What I wanted to do is give resources that were evergreen. So that if you wanted to look up a couch that didn't

have flame retardants because you're up for a new couch coming up, you could go to a resource that manages that so carefully and so scientifically that if it changes, they they know what they're doing.

And so that's what that book is about. It's resources. It's lists. It's tiptoeing through this very big topic. And by the way, it is a journey. I'm still on this journey. I still color my hair.

My kids still have Cologne and I can't fight them sometimes. You know, it is a journey for all of us. And I think you just have to go at your own pace because at your own pace, you're likely to make these changes stick.

And that is the goal. It's not a diet, it's not a fad. It's something that gets ingrained into your being that, you know, like, I don't want to drink water at a restaurant.

Who knew I was going to think like that 20 years ago? I'd be like, what? You know? So I think you just have to decide what works for you and and trust that you're going to get to where you need to be.

Yeah, well thank you. I love all of this. Will definitely link your book and our Summit resource. We have a summit resource page so we'll put that in there.

So that's a wonderful resource. And I love how you brought the science into it. Because you know we probably most of our listeners have heard at this point about okay, you need to remove the toxins from your environment.

You need to make these changes. But really understanding, okay, there is reason, there is science. You're an expert on that and it's actually affecting your immune system.

It's not just us saying, okay, those changes need to be done because of, you know, I think sometimes it feels like, well, why? I know I need to do it, but why?

And I love that you brought the science in for us today. Yeah, I think the why is critical. And as I see you know, I, I'm seeing patients, you know, all the time.

And I teach high school and I teach college students and even other physicians in this topic. You have to have the why, in my opinion, for people to have the buy in, they have to know why they're making the effort, or spending the money or searching extra time, or looking up their cosmetics.

They people need the why, I think, to really be invested in the what. And and that's been really serving as well. So you can dive into the resources, you can look at those, you know, medical publications or you don't have to.

It's just it's important to know that there is science supporting, all of the information, at least, that we share in the books that we've written. But, in moving forward, but also, you know, that you have legitimate resource material that's not connected to products, that's not connected to a whole detox line.

I don't do any of that. I do that at my own expense. All of this educational work, because I think that otherwise you lose the integrity of the messaging for me.

And so that's where I go with. And even when I post, if your listeners want to follow The Smart Human, which is my educational platform on TikTok, Twitter, Instagram, the podcast that I have, which is The Smart Human podcast, where I interview environmental health leaders and medical doctors and researchers and, you know, lawyers, environmental health lawyers.

I mean, all of this, in a very fun way, that resource, The Smart Human, is also posting in a way, if people check it out in the what the problem is, and then what's the physiology, what's the what does it mean?

And then what to do. It always has a what to do or I won't post because I don't want to scare people just to scare people. There's no value in that. so it's really giving good information, but also saying there's a solution.

and that way people don't feel, you know, like they're, you know, throw up their hands and give up. It's not the, the, the point. The point is to just educate at people's own pace.

and so I appreciate you sharing The Smart Human with your audience and also the book as well. Yeah. So thank you. We'll go check out The Smart Human. You're going to get a lot of wonderful information.

And thank you so much for joining us, Dr. Cohen. It is my pleasure. Thank you for doing this because it also takes a village to share this information.

So I do appreciate you being part of it. Thank you. Have a great day ever. Thank you.