Introduction and Beth O'Hara's Background

Welcome back to the Reverse Alzheimer's Summit. I'm your host, doctor Heather Sanderson. And I'm so pleased to have Beth O'Hara here with me today. She and I have shared patients.

We've been in the same mentorship group with Doctor Neil Nathan for a long time. And so it's really exciting for me to be able to have you join us as I pick her brain about everything.

So Beth is a functional, natural path specializing in complex, chronic cases of mast cell activation syndrome, histamine intolerance, and mold toxicity.

She's the founder and owner of Mast Cell 360, a functional nephropathy practice designed to look at all factors surrounding health conditions genetic, epigenetic, biochemical, physiological, environmental and emotional.

I've been sending patients to her website for years because it's full of really practical information about what to do. If you think mast cell activation syndrome may be part of what you have going on.

Beth, welcome. Thank you so much. I'm really excited to be here. And I think this is going to add a whole nother angle to this Alzheimer's conversation that we're not talking about enough in terms of what's driving this neuro inflammation.

And these triggers that we know in Alzheimer's are the same triggers for mast cell activation. So in in my mind, we can't talk about Alzheimer's fully without talking about what's going on in the mast cell side.

Right. And I think you and I both clinically, we see that if somebody has more toxicity, if somebody has mast cell activation, their brain is not working.

And so when when we take that step back and go, what are all the things that can lead to dementia? Certainly we want this on the list. And although it may not be everything for everyone, it is certainly a part of the puzzle for many, many people with dementia.

So you have had your own very significant health journey that led you to become an expert in lots of ways, and mast cell activation. Can you share with us some of your story?

Sure. You know, I got into this as a because of survival to be able to just live my life. And I was one of these people that had symptoms early on. And we find that there's kind of two camps.

So people that have been symptomatic since they were quite young. And then there are people that have some kind of a vent that's like the straw that breaks the camel's back.

Before that, they were fine. They really have health issues. Then everything falls apart. So I was in the first camp and there were things that contributed to that.

There were some major early childhood stressors. I had a TBI when I was nine. I was kicked in the head by a horse, but one of the biggest ones was we moved to the country.

We moved to an old farmhouse. Nobody was talking about mold back then. They're still not talking about mold now, but I'm in my 40s. I mean, this was quite a while ago, and it was, over 100 years old.

It was kind of fun. It was like being in Laura Ingalls Wilder, you know? But, we didn't understand at all the impact of that mold that we were seeing.

And most of the time, people don't even see mold growing. But this was so much mold. You would see it, it would grow on things in the house. And then we played outside all the time, and I was constantly bitten by ticks and.

My health just fell apart at a young age. So the time I was 12, I started having hypoglycemia. When I was in high school, was in a car accident, and I just couldn't seem to come back.

I was just it was I had to whip myself to get out of bed to go to school. I mean, it was just so hard. But I pushed through and my big dream was to go to medical school.

That's what I wanted to do from the time I was six years old, and I was so driven that I wanted Gray's Anatomy for my 16th birthday. And that's, you know, I was the geeky little kid that stayed after and died six in labs and wanted to be a surgeon.

And, I somehow made it through my undergrad. But by my junior year, I was crashing hard enough. I'd had some scholarship offers at that point to medical school, and I had to turn them all down, which was just broke my heart.

I mean, it was so devastating to me. I didn't have a backup plan, and I barely finish out the bachelor's with just the easiest classes I could take so that I could finish that out.

And I had to figure out when, what am I going to do? And I became a chronically ill patient. I had severe chronic fatigue. I had intense brain fog.

Personal Health Journey and Mold Exposure

I had A. D. D., I had anxiety, I had panic attacks, I couldn't sleep, and I was told so many times, we can't go more than a few days without sleep. Well, I went four years without being able to do anything more than just kind of drift.

And I had to take Benadryl to do that, and I got more and more sensitive as time went on. Well, when I look back, I had gone from that farmhouse to 150 year old duplex and college I was living in, and boom, I had a bigger health crash that there was mold in the basement.

You could smell it. And then I had a little cottage that was super cute, but it was a little one bedroom. But, you know, there was water leaking in the bathroom behind the shower.

I have no clue. And you could smell mold. There's a little basement, you could smell mold in there. And I got even more sick by the time I was 28, I could barely walk.

I was on a cane. I just it was like walking on ground glass and I could barely read a book. I was struggling to work. It was a it was a horrible existence.

And I had seen, I think, at that point I had probably seen about 40, 45 people. I stopped counting at 75. I've seen over 75 practitioners. I spent a lot of money.

Every dime I had went into my health, and most of the practitioners told me I was the most complex case I'd ever seen. They had no idea what to do with me.

They didn't know where to start and no one had a clue about mold. But I figured out histamine intolerance. I got a few steps forward there, figured oxalates, and that was what's causing the ground glass pain in my joints.

That was when I landed on mast cell activation syndrome. What? Oh my gosh, this is me. This is every system. My G. I track was a mess. I had been to India to study yoga.

I don't know how I made it there, but I somehow made it there. And came back so much worse. Just my GI tract was just a mess. I'd had dysentery. I would get hives and eczema covering me and, every system you could, you could track.

I had heart palpitations, extremely low blood pressure, you know, be around 85 over, 50 at times. And I would have trouble just being able to stand up and walk across the room.

But with the mast cell activation piece that started pulling the puzzle pieces together, why? I had all these variety of symptoms. It gave me validation because I knew finally I wasn't crazy and I've been told I was crazy, or I was making it up when I was working so hard to get well.

And I know that's a common story. It's a heartbreaking one, and I hear it every, every week in my practice. People come in and tell me this with the referral to psychiatry.

Yeah, yeah. And there's a role in psychiatry, but it's not like it's so rare for people to be malingering or people to have, you know, Munchausen or whatever where they're really causing.

And that is extremely rare. But figuring out that the mast cell activation was what was tying all this together, getting my brain back really was a game changer.

And then going, well, why are these masks also triggered? Because it's not the mast cells that are the issue. It's something causing that. And we knew I had Lyme, but Bartonella, but I couldn't tolerate any treatments.

And we figured out I had mold toxicity. And that's where really made that. I got ground and I got my life back. So I was able to go back to graduate school and get a master's and a doctorate and build this practice.

And I can go hiking, I can do 45 minutes on the treadmill doing, you know, quite well. I still have maintenance I have to do. And I'm still finishing my mold detox because I had about 30 years of exposure.

So it's taking time to get out. But every year I have just several more ladder rungs and I'm so grateful to be here now and to have my life. And how powerful to share that story, because I think so many people get so overwhelmed and they hear for so long that either there's nothing you can do or there's nothing else I can do for you as a provider.

You know, I'm sorry. You're the most complex case ever, and I'm just out of options. And to hear that you you really committed yourself to figuring out what was going on, and then also that, you know, it's a process that it's not going to be so many times where we're socialized to think that, oh, you'll take one pill and you'll feel so much better the next day or the next week.

And it doesn't work quite like that. There's maintenance, there's this is a lifestyle. And it's a it's really about identifying what are all of the things and making up the system.

How do we get them out in a sustainable way in a way that you can tolerate? And then how do we optimize cell function? Right. And you like you mentioned, you knew that you had live in the BCA.

You had these these, Lyme and the co-infections, Bartonella, Borrelia. And yet you couldn't tolerate the treatments. So let's go there because I think so many people have that experience of like, I know it's wrong, but I can't tolerate that.

I'm so sensitive. So what are mast cells and what's going on with this, this hypersensitivity hypervigilance. Mast cells are one of the I think of them as the one of the major defending and sensing cells of the immune system.

So their job is to sense every molecule that passes into our body, whether it's food, it's our air, it's, supplements that we're taking, medications, toxins.

They also respond to stress. And this is huge. There are mast cells in every at the every nerve ending their mast cells in some level in the brain. Although when there is neural inflammation, they'll cross over more into the brain.

And mast cells are in high numbers in our skin. They line the sinuses. They line the whole GI tract from the mouth

down the esophagus, the stomach, the intestines.

They are there in some levels in our muscles. They are made in the bone marrow. We have them in the cardiovascular system lining all the blood vessels.

So they're sensing every bit of blood that passes along there. And, there's some in the heart, the lungs. I mean, we think about them being almost everywhere in the body is very few tissues.

The retina doesn't have mast cells. It's almost it. And these mast cells are one of the most complex cells in our body. So we think about them as evolutionarily being very important for survival.

And what they're doing is if there's danger. So if there's a toxin that comes into our body, if there's an injury, they're involved in injury response there or if we're stressed out.

And so if we think evolutionarily we're being chased by a predator, they're going to start to respond. They're going to mobilize and respond to help us, to protect us.

What Mast Cells Are and Why They Matter

So to make this really simple, most people can, can relate to I just cut my finger or my hand the other day and, I was doing something silly and something that was frozen and was trying to tip it apart, and the knife slipped and I stabbed myself in my hand.

And I didn't get it cleaned right away. So what happened was this started to get a little red. It got a little swollen and started to get sore. And that was my clue.

Oh, you better to clean that out. Well, that's in large part the mast cells producing things like histamine that are going to cause swelling and mobilize more immune cells to come in to protect me from this bacteria that's starting to invade in my hand.

And whatever other organisms, that's an easy one to think about. But if we, you know, you break your leg, the mast is going to be part of that bone healing.

They are going to be part of the cardiovascular system regenerating. And they have over 200 receptors on the outside, which is amazing to me. That's how they can be so responsive.

So they have receptors for viruses, bacteria, molds, Candida. They have receptors for all kinds of toxins. Most of our medications can dock on those receptors and create a response, whether a positive or a negative response hormone receptors, they have receptors for lots of the other immune cell communicators.

And the mast cells are the major interface between the nervous system and the rest of the body. So that's really key. And what we're seeing in neural inflammation.

Then they have over a thousand mediators inside them. They can release is incredible. And we think about histamine being the best well known. And then cytokines have become a household word now.

And cytokines are immune cell signals. Mast cells produce lots of cytokines. We have things like TGF beta. We have interleukins. We have types of interferons.

Marseille's even make for a practitioner's beta glucan studies which I find fascinating. So many things trip taste. They make. Now there's a difference between when we call mast cell activation syndrome and some of which is extremely common.

First of all, I want to say this population studies are showing mast cell activation syndromes affecting between nine and up to 17% of the general population.

How now, if we think about mast cells are at the core of inflammatory responses, mass activation, we're estimating at a bare minimum is involved in 50% of chronic illness.

But I think it's way, way higher then we have. Less and less is known traditionally in medicine about mast activation syndrome. So that's just got a diagnostic code in 2016.

What has been studied more is mast of sight ptosis and some of these other genetic mast cell disorders and associated is where we have too many mast cells.

So you have to be mast cells. They might be producing the normal response, but you're still going to have too many mediators, inflammatory mediators are going to cause problems.

Mast cell activation syndrome much more common. You have the normal number of mast cells, but the mast cells have gotten dysregulated. And once they're dysregulated they become hyper responsive and hyper vigilant and overly sensitive.

So they're going to be overly sensitive to what's coming into the body. They start to get I just described it as they're wonky. So it's kind of like if they're the guards of the castle gate, the castle gate should be protecting us, keeping what's let what's safe come in, like our food or water or air and so on.

And then what's not safe? Keep that out. Keep the invaders out. And we live in such a toxic world now. We're constantly bombarded by toxins. So mast activation syndrome is probably occurred for millennia, but it has become extremely common now.

And that's more recent. And these mast cells are having to sense and respond to thousand times more agents than even 100 years ago. When you think about if you were guarding a castle gate, if you had to be on duty and fight off invaders 24 seven for months on end, you're going to lose your mind and agree and make good decisions.

So if we use that metaphor, the mass, I'll start to lose their ability to discern. Then that's from become hyper responsive and they can make us very sensitive to things that we wouldn't normally be sensitive to.

So that could include supplements, medications, chemical smells, paint smells, gas smells. I think of those of us with mass activation syndrome as the canaries in the coal mine waving the flag, going, hey guys, these toxins are bad news for all of us, but we're getting hit with the immediate responses where some people may not, they may not show up for them until they have Alzheimer's or they have cancer or something like that.

We're having those quick responses, right? A lot of people describe being very sensitive to foods and foods. If they were able to tolerate most of their lives, all of a sudden now they have new intolerances, new allergies, even environmental allergies, maybe.

So this is that balance between yes, being on guard and then letting the right things, the things that serve us in. And so I'm curious, Tom, tell us a little bit more about mast cells in the brain and how these can lead to neuroinflammation, specifically.

So there are we know some mast cells and certain regions in the brain. They're also mass cells that I'm very interested in. The mast cells in the limbic system, which is part of our fear response.

And our limbic system is also we can't separate these systems out, so it's hard to talk about them separately. I always think about the immune system and the nervous system as being intertwined.

And so the nervous system also is sensing what's dangerous and what's not. And in the brain, the mast cells are also part of our protective response, usually not a ton of muscle activation in the brain unless there's been early traumas.

And so early traumas can be abuse, but it can be having witnessed abuse, it can be even having had a surgery at

a young age, I had to have a mole removed that they thought would become cancerous.

And I was three. And I still remember that. I still remember not understand what's going on being taken into the air or to the O. R., and having the anesthesia mask put on me and not having no clue.

And my parents weren't there. So we have these kinds of things. And we almost, almost everyone has had some some type of trauma. And it's become chronic, though you get more mass selective ation happening in that limbic center.

Or when we have things that are affecting neural inflammation. So we think about mold, toxins, other chemical toxins, metals, the types of bacteria, like the types of tickborne agents that'll impact the nervous system.

The mast cells are then going to mobilize into the brain. And again, as a protective mechanism. And it's not always fine tuned, particularly when we have these chronic issues going on for a long time.

So when the mast cell start overproducing, these inflammatory mediators, you can get into a loop with them. And I think I call it a mast cell cascade.

Whereas you get the mast cell start to produce mediators that are inflammatory. The masses have receptors for their own mediators. So then the surrounding mass I'll start to get triggered by those mediators.

And they go, oh sound the sound alarms louder then they're going to. So it's like that snowball effect and it just keeps going out. These mediators are producing a lot of inflammation and to again to protect the brain.

But that inflammation is going to cause all kinds of symptoms depending on what regions are being affected. So we can get memory loss issues. We can get issues with concentration.

We can get brain fog, we get sleep disturbances, anxiety, depression depends on which of those thousand mediators are also being released. The key is and particularly in in conditions like Alzheimer's, part of what needs to be addressed is that over mast cell activation, in combination with addressing those triggers, one of the places that people can get into trouble is if they're only knocking out the mast cell response, and they're not addressing those triggers.

Now, you just took the guards of your castle gate off duty and you're wide open. So we don't want to do that. We have to do it in combination. And that's one of the reasons I think I degenerated so far, because, gosh, back in the 80s, all they knew was I had these bizarre allergic reactions.

And so I was on a lot of antihistamines. But then I had no protection against the mold toxins line. So ideally, if we could have gone back, we would have calmed the mast cells while we were addressing them all the time.

And there was lots of chemical toxins being ruined, farmland, things like that.

Mast Cells, Neuroinflammation, and Alzheimer's

But that's part of the response. And then they'll break down the blood brain barrier. Those mediators will to let more mast cells in. But we've got to think about it systematically.

I think about how it's all tying in together. Right. That works so well with our model. Right. Is that what's making up the cell? What's preventing the cells from functioning?

And and then how do we put in the things that are necessary to promote. How do we get those good nutrients and those those what supports the immune function, what supports neurogenesis and neuroplasticity.

And so it's about order of operations. Where do we start? Yes, we need to calm the system. And we know, you know, just kind of tying this back to other things, the limbic system that you're describing, a lot of our memory

centers of the brain are also tied to our emotional centers of the brain.

And so when we have these strong emotions or we're in a high stress depression, anxiety that can be exacerbated by masks out by something like that. So it's also just miserable to live with. Right.

So some of that is like right. Yeah I like it makes sense that you're a little bit depressed when you feel so awful all the time. But it living in that and sustaining that chronically puts us at risk for dementia.

And so taking that step back, okay, what are all of the things we need to think about. You mentioned toxins, nutrients. We're talking about stressors.

And that this stress of being chronically ill, but also getting into that fight flight free state, not being an arrest, I just heal state structural things that can happen.

Much of what you were talking about, you know, some of this is vascular spasms that are triggered by toxins. So you can't get good blood flow in and out of the brain, not being able to get toxins out of your brain at night because you're not sleeping well or you're you're not in the right position or you're in chronic pain.

You've talked about not sleeping for for years and years and how how, just that alone, that not having that foundational rest that you need in order to heal is, can be really just absolutely traumatic and devastating for your health.

And then the infections that you talked about, things like Lyme, we also know that herpes and peachin to balance these can directly trigger neuroinflammation.

So making sure that somebody is working with the practitioner who can take that step back, hold all of these things, be working on them, if not simultaneously with some thoughtful consideration of an order of operations, and then putting it all together so that people can heal.

And, you know, your, your testimony to this is possible, even though it feels overwhelming. Man, we've come a long ways, a long ways from the 80s. We understand so much more of this and, and it's exciting that people like you were out there doing this work.

So I want to go into like, now that we have this really good foundation of what it is, what the cells are doing, where they're active, where they might be a kind of most triggering dementia is what do we do about it?

How do we know if this is affecting us? And then if it is if the answer is yes, what's the first step in treating it? That's a great questions. First, I want to talk about the what the diagnostic criteria is and where we're missing people.

And I don't diagnose in my practice I do a consulting practice, but I'll talk about, what? I'll give that information and then let's talk about when to start to suspect this.

And then we'll move into what to do. The diagnostic criteria is still quite fresh, particularly when I think about how long there's been diagnostic criteria for Alzheimer's or for things like type two diabetes and things like that.

Just having that diagnostic criteria being accepted in 2016 means we're in evolution here. Pretty new. So the current diagnostic criteria, the first one is quite easy.

You have to have symptoms in two or more systems. So that may mean the digestive system and the nervous system. So maybe there's GI symptoms and there's brain fog and depression or memory issues.

Or there may be skin symptoms with the flushing a lot of us with mast activation have red cheeks. I never wear blush because I look like a clown. If I do.

But some people have a paler complexion and get rashes. You can get eczema and get psoriasis. Those things

are linked. Autoimmune disorders are very linked to having, I have some people that don't ever have skin symptoms.

So that's a big piece of misinformation that you have to have skin symptoms with mass involvement. You don't. And there are many people that they can put anything on their skin.

They never get eczema, they never get hives, anything like that. But they'll get these other systems involvement. Then the second criteria is that there needs to be an increase in one of the mast cell mediators.

That can be histamine, that can be some of the, other types of cytokines that can be tested. There are a handful test prostaglandin D to some of these types of things.

The problem with this one is that those mediators are up and down the bloodstream very quickly. Not everyone has involvement in the cardiovascular system in the bloodstream or the, you know, in the vessels lining the blood vessels.

So you're not going to have those mediators in the bloodstream. And the other is that the processing is very tricky, as we called centrifuge. And almost no labs do.

That arm in labs in Germany does that. How are you going to get blood over to Germany quickly enough? You know, these are hard things. Some people overnight it but it's hard to do.

And only about 10% of people are getting with with clear mast cell involvement are getting a positive, you know, positive increase in those mediators.

The other one is triptans is being used a lot, but trip takes is needs to be used to rule out massive site ptosis or genetic condition called hereditary alpha trip to see Mia trip takes is rarely elevated.

Mast cell activation syndrome. Another issue is we can only test about, you know, a dozen or so of these mediators out of a thousand. What if those aren't the ones that are involved?

So that still needs some evolution. There. Then the third one. Oh, I've been mentioning histamine a lot and I want to clarify what do they just have allergies.

Like what's the difference between allergies and mast cell activation. That's a great question. Allergies again are going to be just more localized. They tend to be you might have kind of an allergy response.

And we could talk about are we talking about IgG e allergies. Are we talking about pollen or seasonal allergies as opposed to somebody who has this systemic type of symptomology.

And it's affecting these numerous symptoms. So if that's all somebody has, I don't see those people. They don't come in, you know, that's all they have prominent talking about mast cell activation.

But usually if we dig and say, well, how's your sleep? How's your digestion? Do you get heartburn? We might dig and we might find a little bit more, but there are people who might just have allergies.

And then if that's all they have, then it just may be histamine intolerance or it just may be that they're a little sensitive to pollen. And would people who have allergies potentially be more at risk for developing a cell activation disorder?

That's a good question. I think of it in terms of most people, mast activation have some kind of seasonal allergy, or they'll have some kind of contact dermatitis with things, or they'll have food sensitivities.

I don't know if that's been studied. And but it may be if we're thinking there's some immune dysregulation there, I always wonder why why does some people have these symptoms and why do some people not.

And there's something underlying that's driving it even in those allergies. And then if we go to the third piece of the criteria, it's that there has to be a an improvement with a mass cell mediating medication, muscle stabilizing medication, or an antihistamine.

Diagnosing Mast Cell Activation Syndrome

The problem with that is, with the exception of Cromwell and Sodium, all of those medications as formulated, have massive triggers in the inactive ingredients of titanium dioxide dyes.

If we're looking at liquids potassium sorbate, sodium benzoate, flavorings, cornstarch, towel all these are things that can trigger people. Why they would put those in mass stabilizers, I don't understand, but that's where we are.

And, sometimes people are actually reacting to that. And that can eclipse any kind of improvement they may be having. The other piece of that, and we're not talking about is sometimes people get so sensitive because of this combination.

Marcello, we're activation and limbic over activation that they're going to be like, I was where they're going to react to anything they put in their mouths.

And it doesn't matter what it is, if it's a foreign agent or, you know, start to develop those extreme food sensitivities. And I was down to ten foods at one point that I could tolerate, and I was barely tolerating those.

Those are hard scenarios to be in, but I use some logic around some of this for people in terms of is this making sense for this individual that's in front of me?

And we do have I developed a symptom survey based on the research of the symptoms that are directly correlated with mass activation syndrome. People can take that on our website and just go over to the website at mass 036 SI.com.

Go to menu under mix, click Symptom Survey and I'll take it through more symptoms. Somebody has the more likely they're dealing with mass activation syndrome.

So as we start to get into it's a point system. So fear of 50 points or over I would consider this pretty strongly. Then the other question is what do we do about this.

And there are some people that just have really mild mast cell activation syndrome. They can probably control it with some Claritin, some Pepcid and they may be good to go for a good amount of time if it's if it's quite mild.

I also don't see those people. So the people I see are the people who are struggling, taking supplements. They're struggling with medications. They can't handle any kind of killing protocols.

They're having trouble with foods and they don't know what they're reacting to, or they're reacting to everything. Where do we start? And we actually start with the nervous system.

So the reason I wanted to see this earlier is that talking about mast cells, or at every nerve ending, there are actually receptors on the mast cells for neurotransmitters and neuropeptides.

And then the nerve endings have receptors for many of the mast cell mediators. This is continual communication loop that I find so fascinating. And if we want to enter in for somebody super sensitive to calm those mast cells, we have to communicate to them that we're safe, that they can stop ringing the alarm bell nonstop.

The best way to do that is by calming the nervous system. Initially, and we can do that. So there's some very targeted limbic rebooting techniques. There are things like DNR or Gupta program that are really dialed in for that.

And we have to simultaneously work with the vagal nerve and the vagal nerve, lots of mass cell communication

with the vagal nerve itself. And that's such a complex part of the system.

Just doing that alone for a few months tends to help people, and they may need a lot of vagal modalities because it's so complex. So a lot of people think vagal nerve, I'm going to gargle and switch hot and cold in the shower, and that should be enough.

It's not always so. We may have to get the people, may have to get some betel nut releasing done manually. They may need to do cranial work with an osteopath.

They're systems like brain tap and Safe and sound. If they don't have extreme sounds sensitivity, that can be helpful. There's lots of things that people can do and even frequency specific microcurrent these types of modalities as that starting to calm down, then the mast cells will start to relax some of the hypervigilant and allow things on board.

For some people that take six weeks, I've had people that that took a year before they could take anything, and we had to really beef that system up. So some people can do 20 minutes a day.

Some people need to do two hours a day of these modalities. And I was in that later camp because of just how much nervous system dysregulation. Then we can start to bring on some nasal calming agents.

And these can be it depends again on the sensitivity. So this is we're working with a practitioner to help problem solve is invaluable for people who are really sensitive.

One of my favorites that almost everyone can tolerate is doing some baking soda. If the particular if the blood pressure is lower. The reason is because baking soda, being sodium bicarbonate by carbonates, modulate a mechanism that calms inflammasome production, which is going to signal again to the mast cells that they can calm down.

And if something is high blood pressure, they might be able to use potassium bicarbonate. Now using potassium, work with your practitioner on appropriate levels.

You don't overdo it. That's usually most people, unless they have some severe Sibo or some severe stomach acid issues can usually do those. And some of the other agents that work well for a lot of people are going to be perilla seed extract.

I love bacon, Chinese skullcap extract, both for muscle calming and for the neuro inflammatory side is just very helpful across the board if people can do it.

And there are hundreds of Marsal agents, tons of research on this, the key is to find what's going to work for this person, and many people may need some low level compounded medications, and that may be if they can handle it over the counter, that's fine.

But a lot of people have trouble with those and active ingredient. So if they can do an H1 blocker like Claritin, like a library, C or tech, whatever's tolerated, they can do an H2 blocker like Pepcid, not as an acid controller, because we're not trying to manage acid.

That's a whole nother piece that has to be addressed.

Calming the Nervous System and Mast Cells

But because it blocks what's called the H2 receptor and therefore major histamine receptors on mast cells and different mast cells in different areas have different concentrations of these.

So in the GI tract, there's a huge amount of these H2 receptors. And it can help just calm those mast cells in the GI tract. And that and chrome and sodium.

And then a compound of medication called pitot often often when people can't very helpful in this food sensitivities or when people are having reactions within 30 minutes of eating.

Some people, it's immediate, some people, as soon as they smell food, or so they put a supplement in their mouth or within about 30 minutes. That's a mast cell response.

It's not usually the agent or the food that they're consuming unless they have an itchy food allergy. You know, that's still methyl involvement. And there are ways that you can work with that.

And I find that doing a combination of some of these medications and the supplement approaches together can really help a lot of people. Homeopathic have had a good success with some of the populations as well, particularly the corner remedies that work on the nervous system can be really helpful then.

So you want to calm the whole system down before you go after the triggering agents, particularly when we're thinking about Lyme, we're thinking about mold.

Now, in that time, people, when cleaning up their environment so they can make sure they're getting mold out of their environment because you're not going to heal if you're continually breathing and mold those mast cells are never going to believe you that they can calm down because they can't.

You've got to get that handled. If you're in a place that has a lot of forest fire smoke, you need to have really good air filtration. I've had people who actually clean up all the mold, and they found out that their kitchen cabinets were off gassing massive amounts of yolks, and that was keeping them trigger to them.

Look at what that is. But we want to bring this whole thing over like a porcupine with all the quills out. You know, I'm going to sue things down a little bit and then we can start working on detoxing mold.

If molds there, or if they've got to move into line, they can handle it. Was it going to be ups and downs in that? And you want the ups and downs to be more in this.

And modulated range. It's manageable. You don't want to take somebody who's up here and then start detoxing them right away. Because those inevitable flaring and those masks, the small toxins particular credibly nasal triggering, they're going to just, the nose flaring is going to be unbearable.

It's too much. So that's the approach that I take that makes a lot of sense. And I'm sure there's a ton of individualizing here. Right. For each person who comes to you is going to be able to go at a different pace and respond to different things.

Like you said, there's could be a thousand mediators, a thousand types of cytokines that mast cells are releasing, and we don't have great tests to figure out which ones.

And so it's a bit of trial and error and working through that with a provider who's worked through it with thousands of people is that's often the shortcut to figuring out, you know, I wish there were an even shorter cut, but really that I think you and I both share that experience of.

It's really just, here's the list and work your way through them. And then, you know, at the end of this, hopefully we found a couple I think of them as allies.

The analogy I use is like, you're going on a backpacking trip and like you don't want to carry anything. You don't need some nothing that doesn't work.

But man, you need those for survival. So the ones that you can identify as allies on your journey, we want to figure that out at the very beginning, and then have those with you for the long haul so that you can, yeah, make that real progress.

Addressing all of the triggering components and I'm also just I'm like doing a happy to I'm scared listening to you say like you've got to get out of the toxic environment, right.

We have to get rid of those things. And this is so challenging. And I certainly am not an environmental hygienist. I am not an expert in this area. I'm you and I.

I think both work on getting the toxins out of the human, out of the body. And then we need to refer to people who can really help someone strategize about how to make sure that their environment is a healing environment.

And so, really emphasizing that, like, I think of people, it's like a cup, but if you're just filling your cup with more and more and more toxins and there's no drain on it, then it's going to overflow into symptoms more quickly.

So just hearing you also emphasize how important that is. It's helpful. So I where can I'm, I'm sure there's so many people who are super interested. And again, I just can't speak more highly of your website and all that you have to offer.

Just from showing up on your website. But I want people to understand where they can work with you, where they can get more information and, yeah, how they can get all this goodness working for them so they can get better.

Thank you so much. Well, we do have a huge amount of free resources on the website at Mast cell three 60.com. So it's m s t is and Tom seal 360 I've got courses I've put together to help people step through this.

And it starts with the nervous system. How to customize your own roadmap. It steps you exactly through how to build that. Some of the top math self-supporting supplements to work with and how to onboard them.

If you're super sensitive and you're having trouble, how to do a very slow titration, starting with sprinkles. And then we have a whole mold course for people who are very sensitive.

How do you go about this if you're very sensitive? And I also want to leave people with a couple tidbits and, I think about people for this summit being in two areas, they're either one to prevent Alzheimer's or they're having to reverse it.

So if we're reversing it, obviously we're working against the clock and and you've got to move quickly. You're in the prevention area and you've got some time.

My motto for those people is that slow will be fast trying to go too fast. It's going to be slow, particularly for sensitive. And it's okay to take time.

And some of these agents, it took me six months to get on board because I started open the capsules and tiny sprinkles in water, and then I stir it and take a couple sips of the water.

Resources, Slow Titration, and Toxic Relationships

And people don't often think that it's okay to start that slow, but it is. And one other one that we didn't mention previously when I want to bring in is toxic relationships, and just as threatening as being exposed to toxins or being exposed to mold or chased by a bear, our mast cells don't know the difference.

Our limbic system doesn't know the difference. I find that in our population, there are a lot of toxic relationships people are involved in, and that keeps us in a survival fight or flight mode as well.

And if we're constantly feeling triggered by that, developing those good boundaries and self-care, and particularly as people move into dementia, we start to lose that.

And so somebody is a caretaker for somebody with dementia, helping them with those boundaries and keeping an eye on that and making sure that they're they're not going to be taken advantage of, but also that there's not going

to be those kind of emotional, social stressors.

That's also really key for people to think about. And we don't talk about that very much. Yeah, I really appreciate that. And like you mentioned, the early childhood trauma.

Sometimes when we're in toxic relationships as adults because we started with toxic relationships. And so my bias is that everyone should be in therapy.

We all have lots to learn. And personal development is, it's not a job, a hobby. And so encouraging people to, to, you know, what does this have to teach me?

And what can I learn from this process? And how can I be a more developed human, and finding peace and healing on across the entire spectrum of, of our experience, not just the physical.

Yeah. Thank you for for mentioning that that it's just an absolute pleasure to have this opportunity to talk with you and to to learn from you. I they I've picked up things at bicarb.

I'm going to be using that more often. And I, I just can't thank you enough for your time. And this just the generous sharing of information that you do on your website and here today with us on the summit.

Thank you so much for.