

## Transcript

November 21, 2022

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### Podcast:

[#29: Dr Jill interviews Beth O'Hara](#)

### Text:

Dr. Jill 0:12

First of all, it is a joy to formally meet you. I know we've run in the same circles for quite some time now, so we've heard each other speak. And I've known about you, so when you contacted me, I was absolutely delighted to talk about mast cell activation today because so many of you out there listening, I know you've dealt with Lyme or mold or other infections. We'll talk about all that today and some other causes of mast cell [activation]. But Beth is really an expert in this area. In just a few minutes, we'll dive into her story and a little bit of her background on what got her interested in this, because we all have a story.

Dr. Jill 0:46

So thanks for joining us today. Just a little bit of background information if you haven't seen our YouTube channel, it's just under 'Jill Carnahan'—it's all free. We'd love for you to subscribe there. You can get this video in just a day or two; it will be live there to share, and then all kinds of other free resources and videos are on the YouTube channel. My regular website is [jillcarnahan.com](http://jillcarnahan.com). [There are] lots of free blog resources there as well, if you want to know more about that. And then your website, Beth, is at [mastcell360.com](http://mastcell360.com)? Is that correct? That's it, yes. Okay. We'll be sure to include that link.

Dr. Jill 1:18

So let me introduce you, Beth, and then we'll jump right in. Beth O'Hara is a functional naturopath specializing in complex chronic immune conditions related to mast cell activation syndrome and histamine intolerance. She's the founder and owner of Mast Cell 360, a functional naturopathic practice designed to look for all factors surrounding health conditions: Genetic, epigenetic, biochemical, physiological, environmental, and emotional.

Dr. Jill 1:42

I love that, Beth, because this is a complex thing. Bob Miller, a friend of ours, has a background in electrical circuits and all that, and my background is engineering. You must have a little bit of that in you because it's complex, right? Her subspecialties are mold toxicity and genetic analysis in the area of mast cell activation and histamine intolerance. So we will totally dive into that today. So for any of you listening who have had mold exposure or concerns about that, that is definitely one of the big triggers. We'll talk all about that in just a little bit. I won't read all of this, but she is just a real, real expert, and we are so delighted to have you here, Beth! So thank you for joining me today.

Beth O'Hara 2:24

Oh, thank you so much, Jill. I'm really grateful that we can partner and support each other to get this information out because it's hard to find this kind of information that we put out. I think we can do a lot for people, especially in this area because it's so underrecognized, but the demographics show that anywhere from 9% to 17% of the general population have mast cell activation syndrome. So it's like 1 in 10, at least. And then, [among] the chronically ill population, it's about 50%. So this is a huge, huge area that needs attention.

Dr. Jill 3:01

I love that because what happens is that there are so many silos in conventional medicine. There's the rheumatologist, there's the gastroenterologist, there's the neurologist, etc. Everybody has a little, tiny area of blinders, and they're looking at, "Okay, you have leaky gut"—intestinal permeability—or Crohn's or colitis or whatever issues. Then you go over here and you have arthritis and osteoarthritis or you have lupus. And then you go over here and you have maybe early signs of MS. And really, at the core, mast cell activation can affect every system, can't it? I want to talk about symptoms, but first, tell me about your story. How did you get interested in mast cells and such a unique area that's so important?

Beth O'Hara 3:47

I was thinking about doing this today, and I was remembering that when I was six [years old], we had to choose what our career path would be. It was like one of those little recital things. So I decided I was going to be a nurse, and I remember my mom saying, "Well, why wouldn't you be a doctor?" And I didn't know any female doctors back then. We didn't have role models and things like that. That was game-changing for me, so I decided I was going to be a doctor. I bring that up because I didn't just casually decide—I dedicated my life to that.

Beth O'Hara 4:19

But then we moved out to the country when I was seven [years old] to this old farmhouse. We didn't know anything about mold, but now we know it was totally full of toxic mold. It had a crawl space—the entire crawl space was black from the mold. My health just went downhill from there. I had horrible allergy symptoms, I had hives, and I had exercise-induced asthma. I had such bad GI issues that every morning I would be running to the bathroom just from the stress of getting ready for school.

Beth O'Hara 4:55

But I was still so passionate about this that I did my undergrad and pre-med. By the time I got to my junior year, I realized I was so sick that there was no way I was going to make it. I knew if I could make it through the four years of study, I would never do the 80-hour-a-week residency because I was already crashing. So I had a full scholarship to medical school, and I had to turn it down, which was just devastating. I became a chronically ill patient instead.

Beth O'Hara 5:24

It's exactly what you were describing. I had an allergist, I had a GI person, I had primary care, and I saw a rheumatologist. I had all these misdiagnoses. I was even sent to a psychiatrist at one point. I was sent to counseling, and I was told I was crazy because I got incredibly sensitive to [the point] where if I just did a little sprinkle of curcumin, which should have helped the inflammation, I couldn't sit down, I was anxious, and I couldn't sleep. By the time I was 28 [years old], I had to walk with a cane. So my friends were out dancing and having a great time, and I could barely hobble across the room to the bathroom because my joints felt like ground glass.

Beth O'Hara 6:09

I wanted to give up because I had seen, at one point, over 50 different practitioners. I saw the best functional medicine practitioner I could get access to before we had telemedicine. I remember we worked together for two years. I tried everything he told me to try. I remember him telling me: "I don't know what else to do. We've reached the end of the road." I just cried the whole way home because it took me an hour to drive there. It took me three days to work up the energy, and it would take me three days to recover from that drive.

Beth O'Hara 6:45

But I learned about histamine intolerance right around that time. There was a person, Yasmina Ykelenstam, who has reports about mast cell activation syndrome. She literally saved my life, and we had this small community online of people who were her first

followers. So that's how I found out about it. Everything finally fit, and it was such a relief because I had started to think I was crazy. I didn't know anybody that was that sensitive and that was that sick other than some people I had met online and Yasmina. So she kind of got me started.

Beth O'Hara 7:22

And then I got into genetics and I started putting pieces together that I wasn't methylated. I had significant glutamate variance, so that made sense with all the anxiety and trouble sleeping. Just piece by piece I was doing a tiny sprinkle of the gentlest things every third day, worked myself up, and still didn't know anything about mold but started to get my health back. Then I learned about mold, and I had Lyme, Bartonella, and Babesia. I grew up in the country; we got bit by ticks all the time. But everything finally started making sense.

Beth O'Hara 7:55

I got my life back, and then I got to go back to graduate school. The first thing I did was a master's in psychology, and that's always been one of my loves—really, how our nervous system affects our immune system. So I did my research in that area on mast cell activation, and then I went on and got a doctorate in functional naturopathy. I didn't become the traditional neurologist that was my dream, but I got to come full circle in a different way. I'm just so grateful to have my life back. I went hiking. I've been building up my aerobics, and I just did 130 beats a minute today on the treadmill for 15 minutes, which is huge for somebody who used to struggle to walk one block.

Dr. Jill 8:44

Wow! Beth, I knew I liked you, but now, I love you even more, with your story. I mean, I could almost cry hearing that because I had such a similar [experience]. I didn't know that I had MCAS or histamine, but [I lived in a] farmhouse, [I was exposed to] mold, [and then I had] cancer at 25. I think about getting through medical school. In a way, you were so blessed because I tried to do it and got cancer through it because it was so hard. I remember literally thinking, "I don't know if I can do this." It was so brutal, the hours and [all]. So you kind of saved yourself. I literally look back, like, "I don't know how I made it." I really, really don't. I really, truly don't, except that God has his hand in my life and has protected and guided me. I know that it was his grace that allowed me to get through. But gosh, I have so much compassion for your story. It's not identical to mine, but I know suffering, and I know that feeling of: "I have to find the answers because nobody out there really understands."

Beth O'Hara 9:41

And then you're feeling so alone. That's what drew me to you too—I knew you had gone through this and had the courage to get through that darkness. That's what drives me—I felt so alone, and I don't want people to have to feel alone going through this. I work with people who are just so sensitive, but we can pull it together. It takes a lot of time and a lot of work, but we can do it. And then people can actually live their lives, have fun with their kids, get to travel, and do all those things instead of just spending life on the [inaudible].

Dr. Jill 10:16

Yes, and I love that you're here as a living example, and me too. I still have a bubble. I still have to be really careful about what I do and how much I do, and I'm sure you're the same. So I love that we're here talking to people listening out there who have maybe given up hope or have been feeling isolated or sensitive. There is hope. I used to travel every other week and it seemed like that would have been a crazy imagination before when I wasn't feeling well. So it is possible; it is possible to get less sensitive. Yet we still have to be really, really careful, don't we?

Beth O'Hara 10:48

I do. I still have to take my supplements. I eat very healthily. I will never eat fast food.

Dr. Jill 10:54

Me too. I always say it's like we're still walking on a tightrope, and the slightest wind still bumps us off, and we get back up and get [back] on that tightrope. I feel like that's part of our calling. I just read some work on Elaine Aron and The Highly Sensitive Person. It's about emotional sensitivity. But I realized, wow!—[for] a lot of these people it's a full spectrum; it's this chemical, environmental [factor]. Their systems are overactive, and on the other side of it, they actually have a gift of intuition, sensitivity to the human race, and compassion for suffering as well. So it's kind of this double-edged sword.

Dr. Jill 11:29

Let's dive into: What does it look like for people who might be out there and wondering if they have MCAS or histamine intolerance? Let's talk about: What would it look like? I know it's so variable, but give us a little bit of a symptomatology outline of what we might see in patients.

Beth O'Hara 11:44

Yes. Let's talk about the classic, and then let's talk about what really happens. The classic is going to be those allergic-type symptoms: Food allergies, hives, itching,

watery eyes, flushing, congestion—these kinds of things. So people end up with allergies. This is one of the places so many people are falling through the cracks because those skin presentations only happen in a percentage of people with mast cell involvement. Unfortunately, a lot of allergists and immunologists have been educated to think that if you don't have flushing, itching, or hives, you can't have mast cell activation. I've had so many people come into my practice and say, "I was told that there's no way I could have this." But then they have all of the other pieces.

Beth O'Hara 12:32

I have a person that doesn't have skin symptoms, she doesn't flush; but she has acid reflux, she has diarrhea, she has sleep issues, and she has anxiety. So there you've got the gut, the nervous system, and the brain pieces. Then she gets trouble breathing, so it's like her chest gets tight with the wrong foods. I have other people who have urinary burning, endometriosis, big hormone imbalances, or really painful periods, and it's that area that shows up for them. So we've got to be thinking about that in different areas.

Beth O'Hara 13:08

I actually took the research on the symptoms that have been associated and put it together in a symptom survey for people. So if they want to find that, we have it on the website, and they can take a look and kind of score themselves on those and see if this might be in the ballpark for them.

Beth O'Hara 13:28

But you said it exactly, earlier, that it's two systems or more where we have symptoms. Some people have eye symptoms; it's like their eyes get red and painful. Or they'll have the sinus going, they'll have ear issues and ear pain or ear ringing. Sometimes [they'll have] respiratory [issues]. Low blood pressure [is] very common, but I have some people with high blood pressure because of other issues. Hypermobility is associated with it, but not always. That's such a big one with mold because the mold toxins and Bartonella eat away at our connective tissue.

Beth O'Hara 14:06

What I tell people to think about is: Are you a mystery person? Are you falling through the cracks? Do you think you've been misdiagnosed? I was misdiagnosed with rheumatoid arthritis even though I didn't have any elevations on the autoimmune markers. They just said, "Well, that's got to be what it is with your joint pain." And then I had somebody who wanted to do exploratory surgery on my knees because I couldn't walk, and I'm like, "Uh, not without a theory of what we're looking for." But this is kind of that common story of, like, "I've seen five people already" or "ten people already."

That's when I tell people to start thinking about sensitivities: Sensitivities to chemicals, foods, and supplements—that's the classic.

Dr. Jill 14:47

Great overview. Some of the things that came to mind that patients maybe have been told they have or they're mysterious—and I want to check in with you on the mast cell [activation]—[are] interstitial cystitis, which is an inflammation of the bladder, there's a high histamine component to that; you mentioned some of the other female and hormonal symptoms, but what about vulvodynia and the burning tongue? I think sometimes those can be histamine and mast cell-related, is that right?

Beth O'Hara 15:10

I'm so glad you brought up the burning tongue and the burning mouth. That's also really classic with mast cell [activation]. Not everybody has these. One of the things that we need to remember is that people are going to have a subset. But with the vulvodynia and interstitial cystitis, there's this triad with that and fibromyalgia, and we often find oxalates at the core of that. I know you know, but for people who don't know what oxalates are, they're little crystal structures found in plants like sweet potatoes, spinach, rhubarb, chard, and almonds—very high—and they're sharp like glass. And that's exactly what caused my joint pain. Oxalates are a big mast cell trigger, and we know molds produce oxalates in our bodies. Mold is the number-one trigger I'm seeing in my practice.

Dr. Jill 15:59

Beth, you are one in a million to put that together because there are so few people that understand [that]. Just in case you didn't hear that, I want to just review [what you mentioned] and then give it right back to you, Beth. Basically, mold will cause your body to produce more oxalates, and some people have trouble breaking them down. There are a lot of different sources, not just mold. But if you have aspergillus exposure or candida, it will often make more oxalates.

Dr. Jill 16:20

If you have trouble breaking them down or you have too many food sources of oxalates like Beth said, these are sharp and jagged, and they can cause pain anywhere in the body but especially vaginal pain, vulvodynia, burning for no reason, interstitial cystitis, which is bladder irritation, and then you mentioned fibromyalgia, the chronic pain all over your body. [It's] very, very common. So thanks for bringing that together because people have heard all the bits and pieces, but it is important to understand that mold is a big part of that.

Beth O'Hara 16:48

And joint pain, so they [inaudible]. So we think about oxalates and kidney stones, but I've learned from Emily Givler at Tree of Life Health, who's an oxalate expert, that kidney stones are only 0.5% of oxalate issues. So kidney stones are actually rare in oxalate problems. And then those oxalates will trigger mast cell activation. So it will trigger that inflammation. So that's what we have with interstitial cystitis—the burning. I had all of that going on.

Beth O'Hara 17:18

Well, I already had mold, so the mold that colonized my body was producing oxalates. And then I went gluten-free, which was the first thing I tried to do when I decided I had to work more holistically. I was replacing wheat with almond flour; I was eating loads of sweet potatoes, lots of beets, and lots of swiss chard. Really, that's why it felt like ground glass in my joints, and it was triggering all this mast cell activation. So that was one piece of this multi-piece puzzle of putting it together.

Dr. Jill 17:50

It's such a good overview of the symptoms. And again, there are many more. One thing you mentioned too that I thought was so interesting [is that] a small percentage of patients I have that just by going into a moldy building, the main symptom they'll get is heartburn. I think that the connection there is probably the mast cell activation from the mold potentially triggering that reflux. But it's kind of an unusual thing. But they're classic; they know every time they get into a moldy building they have heartburn.

Beth O'Hara 18:14

Yes, that's interesting. I've heard you talk about chaetomium [and how it makes] you feel so sleepy. I know right away because I start to get brain-foggy and spacey, and I just feel like I'm going to slide to the floor. We were house hunting last year and we looked at over 50 houses. I could walk in and within a minute I would be like, "Nope," and turn around and walk out. We found there was [only] one house out of all of those we looked at that did not have mold.

Dr. Jill 18:46

Unbelievable! I have a funny story too. I had been looking at new properties, thinking about maybe expanding the clinic; we're probably not going to do it this year with COVID. But when I did this months ago, I looked at this old bank property. I went in there and looked around; it's beautiful. Then I left, and I was going back to the office to do some charting; I wasn't seeing patients that day, but I got to the office and I was so confused I couldn't find my keys. I literally called from the parking lot up to the office: "Guys, I think I got a mold hit. I don't think it's a good idea for me to come in right now

to do charts." It's that confusion and feeling like, "I don't even know where my keys are. I better not go do patient charting right now."

Beth O'Hara 19:24

Yes, it's amazing. I think a lot of people have these mold sensitivities, and we're not aware of it. The first thing I talk about with people is: Did they ever live anywhere that was musty, anywhere with a crawl space? Have you worked in a place where people were sick? Did you work at a school? Or I get kids, and the kids get so much exposure in school.

Dr. Jill 19:49

The schools' public buildings are horrendous. They're all flat roofs, and they're usually not well maintained. So sadly, government buildings and schools are not the best for mold.

Beth O'Hara 19:58

People often tell me either they absolutely know or they absolutely think they don't have mold exposure. They'll say, "Well, no, I've never had mold exposure." But we start digging in, and it just fits. So I think part of what's happening is that the mast cells in the traditional medicine community are getting a bad rap, and it's like, "Well, we've got to knock them down. If we do a lot of antihistamines, we'll calm it down, and that'll handle the symptoms." And that's what happened to me. By the time I was 12, I was on six different medications, and they did calm my symptoms down and made me more comfortable. I could function better because I was itching so badly that I was scratching my skin at night and bleeding. But then what happens is that those mast cells are like the front-line defenders of our immune system, so I think of them like the guards of the castle gate, and they're there to keep bad things out and let the good things in. Well, if we put them to sleep, they can't keep the bad things out anymore. And then all the mold, Lyme, Bartonella, and Babesia had free reign in my body. I think that's why I got so sick.

Beth O'Hara 21:09

So I think there's definitely a time and a place for calming those mast cells down, but then we've got to go, "What's happening underneath?" And that's how I got well, [by finding out]: What's really triggering it? Why are the mast cells sounding the alarm? And then, what do we do? Listen to those mast cells and deal with what's causing them to sound the alarm instead of just trying to knock them out of the equation.

Dr. Jill 21:32

I love that. Let's talk next about triggers. But just to reiterate what you said, both of us love functional medicine. The reason that we don't just want to give a diagnostic code and then say, "Here's a medicine for that code," or even five medications for that code, for that matter, is that that might work for the short term, but the real healing comes—from both of our lives and what we've been through—in going deeper and saying what actually was the root cause or causes. So, Beth, we've talked about mold. Clearly, mold is maybe the biggest trigger for mast cell activation. What are some of the other triggers that you see for mast cell activation?

Beth O'Hara 22:10

Well, definitely Lyme. Lyme has become a big issue. You probably have some ideas I haven't thought of too. One of the reasons I think it's such a big issue is because mold has become such a big issue. When we get mold toxicity, it knocks out the pathogen-killing side of our immune system and then takes that chronic inflammatory side, which is the mast cell side, up. So we're in this [situation]: I can't kill off viruses and bacteria, and I'm really, really, really inflamed. So I do see quite a lot of mold and Lyme.

Beth O'Hara 22:49

And then one of the things I look at that I don't think a lot of people think about is the airway. We have this generational lack of nutrition that causes our dental arches to get smaller and smaller, which is why I have braces because mine was so small my tongue was falling back into my throat. I felt anxious during the day and had all this muscle tension because my body was just struggling to keep open. So it's been a game changer to get that widened. I don't tell people to do that in the beginning because it's not pleasant or fun. But sometimes that can help make sure we have enough oxygen and sleep—it can help with sleep.

Beth O'Hara 23:29

Estrogen dominance is a big trigger. Estrogen triggers mast cells, and progesterone calms mast cells. So that's one of them that I often see. I see a lot of food triggers, especially once the mast cells get dysregulated. Then we get this immune-triggering [event]. I had immuno-IgGs to broccoli and flaxseed. It makes sense—like, okay, corn, wheat, dairy—but broccoli and flaxseed? So I had to stop eating those for six months and let that calm down. So those are some of the really big ones.

Beth O'Hara 24:07

My favorite one that we always underestimate is stress and trauma. I found that about 60% of people in my practice had [experienced] early childhood trauma. Trauma can be that we've experienced abuse, but even witnessing [it can be a form of trauma in itself].

[For example,] if at six years old we watch somebody die and we don't understand or we see something terrible happen. I get people from different countries, and they've lived through a war as a child. Sometimes it's not even that severe. Sometimes it's having surgery at 5-7 years old and we just don't understand what's happening. And then that affects our nervous system and immune system development. So that's why I have people start with nervous system rebalancing, and it's huge.

Dr. Jill 24:55

Yes, I really want to dive into that topic because I know you have some resources and so much knowledge on it. I love, love, love where you're going with this and all the important information you're bringing up because it really is this very broad spectrum with many, many, many triggers. And you didn't mention EMFs—electromagnetic frequency—but what I see is that that adds on to the burden.

Beth O'Hara 25:18

There's solid research on that now. If there's any question at all—solid research—I have 20 studies on the website on that.

Dr. Jill 25:23

Oh wow! This is all on your website too, you said, right?

Beth O'Hara 25:26

Yes.

Dr. Jill 25:27

Okay. Oh, that's such a great resource for people. And yet, Lyme is becoming an epidemic. I always say, in a really simple way—if you've listened, you've probably heard me say this before—that at the very core of functional medicine, besides looking for the root triggers, [there] is usually a toxic load and an infectious burden. These two things create inflammation and create other things like mast cell activation. But at the core, Beth and I are usually looking for what toxic loads might be there like mold, chemicals, metals, or EMFs, and what infections like old viruses that are reactivated [such as] Lyme, Borrelia, Bartonella, Babesia, etc.—all these tick-borne or lice-borne infections that can really wreak havoc on the body. So thanks for bringing that up. Let's talk a little bit about treatment. I know you mentioned before in the call that ordering things is important. I'd love to know a little bit about how you like to address that in order—order of operations.

Beth O'Hara 26:23

So the first thing I do is do the analysis to see: What's this person dealing with? And then the first thing I actually recommend people do are nervous system supports. This is because there's this axis, the psycho-neuro-endocrine-immunological axis. When I took classes—I don't know if this was the same for you in medical school—you know, [they teach], here's the immune system, here's the nervous system, psychology is on a whole different campus, and then we've got our endocrine (hormone) system. But the truth is, they're interwoven, and we really need to be teaching them in terms of how they're all interwoven and signaling. So our mast cells react within seconds to our thoughts and our stress.

Beth O'Hara 27:14

I've done experiments on myself. Swelling is a big symptom of mast cell activation too, and that's one of my first symptoms. So I know I've gotten the wrong food or I'm in mold because the knuckles on my hands will start to swell. My hands can go from looking like somebody in their 40s to really looking like a 70- or 80-year-old person's hands from the swelling. I've done experiments where I've just started to spiral on something to see what would happen and within two minutes my hands will swell. It's just immediate. So I really studied this and did a whole thesis on this axis and mast cell activation, and it's critical.

Beth O'Hara 27:55

One of the stories I like to share, several years ago I walked into a hotel. My husband and I were out traveling to see his son and his grandbaby, and we rented this hotel. We walked in, put our bags down, and noticed that it smelled really strong in there. But I thought it'd probably air out, so we left and went to dinner. We came back in. I'd already had the first exposure. The second time, I had this massive asthma attack. I hadn't had asthma in years, so I didn't even carry a rescue inhaler. I went to the front desk, gasping and trying to get my words out. I told her that I couldn't breathe, and she said they'd just shampoo the carpets in the whole hotel. So there was the fragrance from the cleaner, and then all of the mold activation with all the spores and the toxins.

Beth O'Hara 28:45

So I went to the car. My husband was working with them to try to get us to another hotel, and I thought: "I'm going to have to go to the ER. I don't want to go to the ER because then I'm going to have all the smells and these other triggers." All I had were breathing practices, and I actually had eucalyptus essential oil, which is okay for me but not for everybody. I breathed for 30 minutes, and I consciously worked on calming myself, telling myself, "I'm okay"—positive self-talk—and I got that asthma attack to stop. This was like an ER class. And I don't tell everybody to do that. If you need to, you need to go to the ER. But I know my body well enough to know. But that's the power of our thoughts and breathing and being able to manage our stress.

Dr. Jill 29:32

Wow. I just had a thought. It's bringing me to tears. My little brother—we both grew up on the same farm—is nine years younger than me. He had horrible asthma. No doubt there was mold exposure, and of course, corn and beans were the crops, and they were loaded with mold. So all of the dust and everything on our farm—I'm sure it was just a petri dish of mold for me. The bottom line though, same thing with you, going to a hotel I remember when he was probably two or three and I was the older sister, he had a horrible asthma attack in this hotel. I remember sitting with him and breathing with him, and talking to him before my parents took him to the ER. He was able to start to breathe a little bit better. But I remember, I didn't know anything better, but mom was just like, "talk to him and breathe... " and us talking together. I think my mom was right there until we could get the ambulance there, and that breathing really did make a difference. So that was all we could do right then, but it was pretty powerful. I really remember that event. When you talked about that at a visceral level, I'm like, "I remember my little brother," and I was afraid he was going to die.

Beth O'Hara 30:37

Oh gosh. [inaudible] to be able to do that.

Dr. Jill 30:41

Well, I don't know; I mean, my mom was right there with me. But it's so interesting because I remember so clearly how powerful that was. Even now, the power of thought, prayer, and intention [has a positive effect], and it calmed him down.

Beth O'Hara 30:53

Yes, this is something I have all of my clients who come in work on. We identify which specific strategies are going to work best for them. It's something that's so overlooked, and I overlooked it. Even [after] having done research on it, I was like, "Well, I can do a couple of breathing practices." I had been a yoga therapist, so I know how to breathe; I know how to do yoga. But it wasn't enough. I had to really beef that up. I had some childhood traumas and some major stressors as a child, and it made a world of difference; it was the missing piece. It's like I had all the foods right, I had the supplements right. But I tell people now it's 50% of the healing process; we've got to calm the nervous system because of that interconnection there with the mast cells.

Dr. Jill 31:42

Yes. So what do you start with? Do you have a program? Do you have a handout? How do people get to know more about this or see you for it? Or what would you recommend for people listening?

Beth O'Hara 31:54

Well, we did a whole blog on the background. One of the programs I really love for people to do is the Gupta program, or DNRS—one of those that appeals to them. That helps with the limbic system—the fear and emotion part of the nervous system. Then we have to work on the structural part of the vagal nerve and on the nerve signaling. So there are some different things with that that I'm going to really get into to help people decide which ones are right for them. We're going to do that in a class that I've got coming up. I'm trying to put together these online classes so people have access to some lower-cost offerings because not everybody can afford to work with somebody like you or me—it's expensive. That way they can step themselves through and then take it to their practitioner too.

Dr. Jill 32:41

Oh, how exciting! We'll be sure to share that. We will share it with everybody; that's super exciting and super practical. So start with the nervous system—totally, I couldn't agree more. As I got into mold and Lyme and the infections, and I'm definitely doing MCAS in my practice because it's equivalent, it's not my number one focus but it's really there as a number one thing, but what I was going to say is what I realized, just like you mentioned, is that I can't really heal those infections and toxins until I address the limbic system and this overactivation [that occurs]. So I love that.

Dr. Jill 33:15

A couple of things that I've learned: The DNRS you mentioned and the Gupta program [are a] fantastic way to start. There's a book called "How to Heal Your Vagus Nerve," I believe, that I've recommended to patients. And then there are a couple of things. I think passively if you're type A like me and you get one more program to do, there's a little bit of it that feels like, "Oh no, one more thing I have to do," right? For me, that stresses me out. So I wanted to include some passive things, and I found binaural beats. Just listening to these changes in the beats can be really calming to the nervous system. If I go on my walk, often, I'll put on my headphones and listen to those [beats]. And then cranial sacral therapy or integrative manual physical therapy—some of these therapists that really work with the nervous system—I like that because if you just want to go and receive if you're all stressed out, [those are] some other options in there that you can do to help with that nervous system.

Beth O'Hara 34:03

It's so wonderful too because when you've been chronically ill and as sick as you and I have been, and as probably a lot of people listening have been, then you start to feel not safe in your own body. It just doesn't feel like a safe place to be, and you can't get an escape from your own body. So to have somebody just hold you, hold that space, and

help you feel safe in your own body is huge. So I love cranial-sacral as well, exactly for that reason. And then there are certain actual points that I'm going to teach in that class that people can work with, and that's a free, easy thing that people can do as well to help calm the nervous system.

Dr. Jill 34:41

I love that. There are some great supplements out there. Do you start with medications? Do you start with supplements? What's the approach or direction of treating this once you get the nervous system a little bit under control?

Beth O'Hara 34:55

Yes. It depends on how ill people are, how reactive they are, and if they're functional or not. I see a lot of people that just aren't functioning; they're barely making it through their day if they can work, or they can't work. Sometimes meds are necessary. With GI symptoms, I found that often cromolyn sodium is a game changer. Sometimes people can do ketotifen, and that can help calm things down. Sometimes some H1 and H2 blockers. Especially if there are massive sleep issues [where] people just can't sleep at all, sometimes something like hydroxyzine can break that cycle. So those are some options on that side.

Beth O'Hara 35:37

And then sometimes people aren't tolerating those medications. One of the problems is that other than cromolyn sodium and ketotifen, [which] of course have to be compounded here in the US, all of the other mast cell stabilizing and antihistamine medications have mast cell triggers in the inactive ingredients, like titanium dioxide or just colors. So many times, people think they're reacting to the medicine, but they're [actually] reacting to that. So trying something compounded that's really clean can help.

Beth O'Hara 36:05

Then on the supplement side, my top two are perilla seed extract and then baicalin, the Chinese skullcap extract. Perilla seed extract is so gentle, and I found most people tolerate it. But I've got so many super-sensitive people. I don't have a single thing everybody can do. Even baking soda and water, I have some people who can't do it. So I never say everybody can do something. And then that baicalin Chinese skullcap extract not only supports mast cell calming, but it [also] has an effect on the nervous system too and that nervous system calming. So those are usually the first two I'll try with people and baking soda. Baking soda and water on an empty stomach—there's something. Maybe you know the action. I know that when we go into flares, sodium dumps out of the body, so if somebody doesn't have high blood pressure, they can try baking soda. There's something with the bicarbonate that I have not found a mechanism for. Do you know?

Dr. Jill 37:06

I don't know for sure, but I wonder; it's similar to the Alka-Seltzer Gold, which is a very chemical version of that. It would be similar. But if someone's having a really bad Herx[heimer reaction] and sensitivity—which is probably mast cell [activation]—it's like magic. It's like this wet blanket on the system. I think it's because it alkalinizes the system pretty immediately, and when you go from acidic to alkaline, everything changes and shifts enzymatically. So I don't know for sure, but I'm guessing that the alkalinity shifts the mast cell in some way.

Dr. Jill 37:36

The two you mentioned, I love skullcap [extract]. I have not used the perilla seed, so that's a game changer to know that from you, and of course, quercetin and those [things] but those can have other issues. But I wonder if some of those herbs actually have a more alkaline effect too. It'd be interesting to see.

Beth O'Hara 37:52

I don't know. I do have studies on how they affect the receptors. One of the things that's so fascinating about mast cells is that they have over a thousand mediators and then hundreds of receptors on the outside, so they can respond to so many different things, and that's part of what makes them perfect for that kind of frontline [inaudible] of the cell. But also, why we often need this multi-factorial approach—it's not simple—is because those cells are complex, and this whole condition is very complex.

Dr. Jill 38:25

Oh, that's great. So you've really given us a great overview. I find just hydration, water, and IV fluids can be game changers, as silly as that sounds, probably along the lines of alkalinity because water is the most natural antihistamine out there.

Beth O'Hara 38:41

Right. I'm so glad you brought that up. Yes, absolutely. It's so funny because people are usually pretty well educated by the time they find me; they've done a lot of reading and tried a lot of things. And I'd say that about 25% of people, when I do a case review, are not drinking enough water, and they just haven't thought about that. So they're getting like two cups of water in a day. We really need to do at least half of our body weight in ounces [of water]. I do a gallon a day just because I'm naturally thirsty, probably because I'm still [inaudible].

Dr. Jill 39:12

Right, me too. I'm just encouraged because I do decent, but I need to do more. So that's an encouragement. So targeted binders—okay this is a little shift because this is more related to mold—but any sort of trigger that could be a toxin. You did some work recently with Emily Givler and Neil Nathan on the targets of the binders and stuff. I'd love to hear a little bit about your research there and what you found.

Beth O'Hara 39:39

Yes, for sure. When we're talking about the big picture, the order of operations, we've got the nervous system, we've got mast cell calming, and then if there's mold toxicity, that's absolutely step three, no matter what else is happening, unless it's, of course, an acute or emergency issue. We've got to deal with mold toxicity. Where we start is with elimination, so we start by making sure we're having bowel movements and drinking enough water. You've got this amazing coffee in a kit, and you actually got me to try it for the first time because I had been intimidated and afraid to try it, but the kit made it so easy. So we have those steps, and then we bring the binders in.

Beth O'Hara 40:20

Now, I always want to be really transparent; I did the phase 2 detox research; I didn't do the binder research. But we know now that there are specific binders that have more affinity for specific mold toxins, and we can really make this quite a bit more targeted. For example, charcoal is often used for mold toxins, and it's a great binder for things like ochratoxin and trichothecenes, but it doesn't really bind to gliotoxin. So what do we use for that? Well, we can use *Saccharomyces boulardii*; it actually binds to gliotoxin, which I find really fascinating. And then n-acetyl cysteine will bind gliotoxin. I don't have a lot of people in my practice that can take that because they're very sensitive and they usually have iron dysregulation, and there's a problem that can happen there. But it is a binder. Another great one for gliotoxin is bentonite clay. It's like we can really hone this in, and I'm getting so much better outcomes with that inflammation.

Dr. Jill 41:32

Yes, this is fantastic. Dr. Nathan has it, I think, on his website. Do you have it on yours as well, where people could find [it]?

Beth O'Hara 41:41

I did. I made a really big blog post. It's a lot of info, but I wanted to show people the whole overview so that you can step yourself through. So it's like [for] this toxin, [use] these binders, [for] this toxin, [use] these binders, and then the phase 2 supports. And then this shows how you need to go through stage by stage by stage. And then the antifungals and the bio [inaudible].

Dr. Jill 42:03

So be sure and share that with me [through] email, text, or whatever. I'll make sure it's on here. So you guys listening, I'll make sure it's on your YouTube, and I'll make sure that it is shared with all my listeners because that's such a great resource that you always put together. As a clinician, I know a lot of the nuances, but it's so nice to have it in one place. So thanks for all your work on that. So after the mold, is there any other order of things or things that we're missing in helping patients heal?

Beth O'Hara 42:39

Yes. One thing that keeps popping into my head is that when we talked about symptoms we didn't talk about and I wanted to weave it back in for a second is autoimmunity. And mast cells are often the base of autoimmunity. So once people have mast cell activation, there's so much more predisposition towards autoimmune conditions because we get that increased chronic inflammation, that stage 2 response, and then that can take us over into autoimmunity. So if somebody has autoimmunity, almost every autoimmune condition has been linked in research to mast cell activation. So that's something to think about.

Beth O'Hara 43:14

We know mold toxins are a big trigger of that too. In terms of after that, I have this image that I like to use, one of those Jenga games with the blocks. On the bottom block in this image, there's only one block, and it says 'mold.' And then if we pull that out, part of the tower is going to fall down, and then we see what's left because the mold toxins are going to dysregulate our hormone balance, methylation, and the gut. It's so hard to address—SIBO or SIFO—when we've got mold toxins that haven't been addressed. But generally, in the mold toxin protocol, when we get to the antimicrobial phase, then I like to start weaving in the gut supports if there's dysbiosis—SIBO or SIFO. I start to work with that.

Beth O'Hara 44:03

If somebody does have active Lyme or Bartonella, then I'll refer them to somebody that really works with Lyme because I have my area, but that's not a piece, so I'll refer them to someone like you or somebody in their area that can help them with that piece. Then we can start on things like hormone balancing and see if there are still methylation issues.

Beth O'Hara 44:25

All along the way, I'm working with people on their foods. I really encourage people to do a low-histamine and a low-lectin trial because lectins trigger mast cells. And they

actually have what's called a c-type lectin receptor for mold and other fungal species that also these lectin foods like potatoes and corn and wheat can trigger, and even our squashes like butternut squash, unfortunately. But I have them do that for six to eight weeks to see what calms down. Not everybody has histamine intolerance, though, with mast cell activation. So if it doesn't make any difference, then we might ditch it, but for most people, I see that it makes a difference. We might have to work with the oxalates, but that's a little tricky.

Dr. Jill 45:09

It is when you go through all of it. So I love that you said that, and I want to talk just a little more specifically. So if you're listening and you're like, "What histamine foods?" My own experience was before there were lots of blogs on histamine. I remember being like, "Bone broth. Everybody says it's good but I don't do well on it"; "Kombucha, everybody says it's good but I do horribly on it"; "Fermented foods, they're supposed to be good for your gut but I don't do well." So of course, this is a list of histamine-containing foods, and clearly, I had histamine issues. But I was like: "Why in the world?!—these are good foods!" And they are good foods for some people.

Dr. Jill 45:39

But it's funny because things like bone broth—especially collagenous bone broth—anything fermented, those jerky bars that are so popular, the paleo diets, any sort of meat or protein that's been aged, fermented, or dried, you might be surprised that some of these supposedly good foods [are actually high in histamine]. And then lectins, you mentioned a few; are there any other common lectins [in foods] that people might not be aware of?—because they're pretty common.

Beth O'Hara 46:05

Yes, oh my gosh, corn is a big one. Even after I could walk and my joints were better, I was still having joint burning, and I finally realized it was the corn and the butternut squash. So those are some big ones. Anything in the nightshade family, so eggplants, tomatoes, sunflower seeds, and even cucumbers. But if you peel and seed the cucumbers, that's going to take it down. I think that's a key [thing] for people to look at.

Beth O'Hara 46:35

I have the same problem with histamines. When I'm into something, I'm all in. [inaudible] laboratory with my kombucha and filtered veggies and everything happening, and I was just itching head to toe and I couldn't sleep. That's what led me to [the diagnosis of] histamine intolerance. We just did a whole thing on these unhealthy foods that aren't healthy if you have mast cell activation or histamine intolerance.

Dr. Jill 47:02

Oh, that's a good one, because I hear people all the time [saying] they're so proud of their bone broth or kombucha, and they have histamine issues. I'm like, "Oh, sorry, those are not going to go so well." It's not really out there publicly—I mean, it is out there with your information and mine, but it's not as common.

Beth O'Hara 47:19

Right. Or celery juice is a big one. When you get to 16 ounces of celery juice, it's really, really high in oxalates. I have people come in who are having terrible burning and joint pain—it's that celery juice. But you have to step it down slowly; you don't want to stop those oxalates cold turkey.

Dr. Jill 47:37

Okay, this is really important. Green juices and things, a lot of kales, spinach, and things have higher oxalates—especially spinach. Blueberries, spinach, almonds—these wonderful foods [have them]. I remember maybe 12 months ago, I tried something with more almond flour, and then I was eating it regularly, and all of a sudden, my lips got really dry and broken out. I'm sure it was oxalates. But oxalates are good foods; they're amazingly healthy foods, so you do have to sometimes take those. Like Beth said, you might start with the lectins and the histamine, and don't worry so much about oxalates.

Dr. Jill 48:11

But what you mentioned I wanted to reiterate is that if you do think you have oxalate issues, you don't want to go from 100 miles an hour to zero in one day because you will dump oxalates and it's very, very painful—you'll actually flare and it's not good. So it's pretty important if you do think you have oxalate issues to diminish the level [gradually]. I always say you're going to have to kind of titrate so that you have a pretty normal level every day, maybe a lower level than what you used to. But you don't necessarily want to go to zero oxalates, and you also don't want to go down quickly.

Beth O'Hara 48:40

Right. I think most people, if they have an oxalate issue, can just worry about the big five: Beets, spinach, swiss chard, rhubarb, and almonds. I think I covered spinach; those are the major ones. But the other thing I tell people is that these often aren't for life. I've gotten so much more histamine intolerance. I can have a fourth of an avocado, which is so amazing now, and I can have small amounts of some of these foods. Often, when we address the mold and heal the gut, we get much more oxalate tolerance back. We may not be eating sweet potatoes every day, but we can really improve our ability to handle those foods.

Dr. Jill 49:21

I love that because we give these people [dietary restrictions]. I always say, "It's like your box is getting smaller and smaller." [For example,] you come in with four foods that you can eat, and you still can't eat those every day, so you're really, really limited. First thing when I think of that, of course, mast cell and mold, because they will make the box smaller; you're going to be more sensitive. Part of this is because oxalates, histamine, mold, and many other things—but those are huge ones—will all increase your intestinal permeability. So all of a sudden you have Swiss cheese for guts, and you have these holes all over in your gut, and then everything you're eating goes right into the bloodstream and creates a more antigenic effect.

Dr. Jill 49:58

You can have healing. I'm like you; I used to be on maybe 10 foods—I'm still very strict with my diet—but I can eat a lot [more of a variety of foods now]. Like grains, I used to not be able to touch any grains. I can eat quinoa and a little bit of white rice if I need to, no problem at all, and that was not tolerable before. So a lot of times, your box is getting smaller. And Beth and I don't want to make your box any smaller, but temporarily, while you're healing, you might pull that in and be very restrictive so that you can lower that histamine load and inflammation. And then our goal is to expand that box for you.

Beth O'Hara 50:31

Yes, exactly. I tell people, if you at all can, think about replacing, not removing. So let's replace spinach and curly kale with things like flat-leaf kale. Arugula is a huge superfood for people with mast cell issues.

Dr. Jill 50:48

Oh, I love that. For some reason, I gravitate toward the dinosaur, the flat kale. But I didn't know that curly [kale] is more histamine, is that right?

Beth O'Hara 50:57

No, more oxalates.

Dr. Jill 50:59

Oxalates, thank you. Very interesting. Gosh, I could talk to you forever, Beth; this has been so fun. I would love to make sure people know—we talked about your website—where can they find you and how can they get involved and know when your course is coming out?

Beth O'Hara 51:15

Oh, thank you, Jill. So we've got a website at mastcell360.com. We've got a great Facebook community as well. We do free Facebook Lives for people—something different about mast cell activation every week. If people are ready to jump in, I've got a free 'root causes' report where people can get more in-depth because there's no way to cover them all today, but they can start to check off what they think they have and make sure it's being addressed. We've got a supplements class and mast cell activation and a nervous system class that's going to happen on November 10th. If people get on the email list, they'll get all of that information.

Dr. Jill 52:00

Well, thank you for all the wonderful resources you provide and all your [hard] work. I just want to acknowledge that this comes from a very deep level of your suffering and your overcoming, and I love that you've used that to catapult you into being an expert in this. Even today, [on behalf of] all the listeners—and I'm sure we're going to have many more—[for] all that you're doing, thank you, thank you, thank you, Beth, for the great work that you're doing.

Beth O'Hara 52:24

Thank you, and I just love that we can team up like this and really help people not have to suffer like we had to.

Dr. Jill 52:30

Exactly. All right, everyone. Well, thank you for joining us. This will be live recorded, and then it'll be on the YouTube channel, so we hope to see you at an upcoming Facebook Live soon. Take care.