



Episode 541: Beth O’Hara on Mold Toxicity,
Detoxification and Recovery

Child: Welcome to my Mommy's podcast.

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Katie: Hello, and welcome to the Wellness Mama Podcast. I'm Katie from wellnessmama.com and wellnesse.com. And I am here with repeat guest Beth O'Hara who, in this episode, we talk about mold toxicity, detoxification, and recovery. And Beth O'Hara is a Functional Naturopath. She specializes in complex chronic cases of mast cell activation, histamine intolerance and mold toxicity. And she is the founder and owner of Mast Cell 360 which is a functional neuropathy practice that looks at all the factors surrounding health conditions, genetic, epigenetic, biochemical, physiological, environmental and emotional.

And we go deep in this particular episode on the topic of mold toxicity, all of the things that come into play when it comes to mold toxicity, how this relates to chronic Lyme and to mast cell issues. And then we get specific on how to detox mold, how to avoid it, and some hopeful news why 99% of people who have mold issues in their home don't actually need to leave their home or move out. And she goes really specific on the different ways that mold can be addressed and how people individually can handle that based on how their body is responding. So lots of very specific research and info in this one. And let's join Beth O'Hara. Beth, welcome back.

Beth: Thank you so much. I'm really excited to talk about this with you today.

Katie: I am too, and we're gonna go deep on mold toxicity, but before we jump into that, I have a note of my show notes that you do your own dog training and that your dog has a vocabulary of over 100 words. And I would just love to hear more about this.

Beth: Oh my gosh, that's actually true. Well, I have two dogs, but the one that loves to do training, she's a Belgian Shepherd, and we got her into agility because she's frighteningly smart. And if I don't make work for her to learn, you know, tricks to learn and things like that, she'll make her own work, which is never good with your dog. So she knows over 100 words. She can jump up and touch. She knows in between touching my hand or tap something, or she knows to go touch something if she wants her leash to go outside, and she's pretty smart. We actually have a really funny story where I had trained her to ring bells to go outside, and she'd just gotten tall enough to put her head on the kitchen table. So then she trained me because she rang the bells. I had put my dinner down, went to the door to let her out, turned around and she'd run over and was eating my dinner. So that was the end of the bells.

Katie: That's so funny. And your dog is definitely more well-trained than my dogs. That's inspiring. But the issue we're gonna go really go deep on today is the topic of mold toxicity. And for anybody who hasn't listened to our first episode, we talk a lot about mast cell activation and histamine. That one will be linked in the show notes as well. But I know you have a personal experience when it comes to mold toxicity. So let's start there.

Beth: Oh my gosh, Katie, well, when I was seven, we moved into the country in this old farmhouse and it seemed like it was gonna be this great adventure. And it was a lot of fun, you know, being that age and being out in the country. I'm in my 40s, this was in the early '80s. Nobody was talking about mold. Nobody was even talking about Lyme. And there was a lot of mold in that house. Unlike most people who have mold exposure, you never see the mold, but we did have a lot of mold there. And it wasn't until I was much later in my life that...and my parents still lived there, and they found out that there was mold all under the crawl space, just that black *Stachybotrys* mold that's really toxic. But when I was young, my health just started deteriorating.

I never could keep up with my peers. I really wanted to play sports, but I couldn't, I didn't have the energy for it. And on top of this, I was kicked in the head by a horse. So I had this brain injury that I couldn't quite come back from. I started having chronic fatigue, a lot of muscle pain. I had other pain from that accident. By the time I got into college, my health was completely falling apart. And I had gone to doctor, to doctor, to doctor, nobody knew what was going on. I couldn't sleep. I would have hives. I had rashes, I had eczema, I had serious GI issues. I had a lot of brain fog, and I was so dedicated to going to medical school, but I had to just finish out my bachelor's. I barely was able to finish it out and become this chronically ill patient.

I saw over 75 practitioners, nobody was looking at mold. They figured out I had Lyme, actually Lyme, Bartonella, and Bejia, but I couldn't even tolerate the treatments for that. So it was just this terrible situation to be in where what we thought would get me better, I couldn't tolerate. I got so sensitive. I couldn't even take supplements. I couldn't take medications. I was down to 10 foods. My whole body was just falling apart and the pain was horrendous. The sleep issues were probably the worst. I'd rather have pain than severe insomnia. And a lot of people can relate to that. And my clients tell me the same thing. But finally, I realized when I saw the best functional medicine doctor I could get to, did everything he knew how to do. And at least he told me, and he was honest, and he is like, "I don't know what's wrong with you."

I thought, "Oh my gosh, if he doesn't know..." And this is before telehealth, so now you get access to all kinds of people, but back then it was who you could drive to. And this person was an hour away, which was really hard to do being severely chronically ill and at times bedridden. But, I realized I'm gonna have to figure this out. And I started studying and learning, and I had the pre-med background to fall back on. And when I landed on mold as being the root cause, it was causing this chronic fatigue, was causing these GI issues, I had severe estrogen dominance. My menstrual cycles were horrible. They would lay me flat for three days. The brain fog, the anxiety, the panic attacks, all of this started making sense and tying together and why the mast cell activation was so out of control. That was a big missing piece and starting to address that is what got me my life back.

Katie: Yeah. And you mentioned this wasn't very well known when we were younger. People weren't talking about mold toxicity. It seems like they are more so now, but I would guess there are still a lot of people who maybe are encountering mold who don't know and aren't looking for the symptoms that would be kind of indicative of that. But how has mold become such a big issue, or is it just that we know more about it now?

Beth: It's a great question. It is a combination. So, one, we have more awareness. We need a lot more awareness than what we have right now, but it is getting on the radar finally. There are some things that have worsened the amount of mold people are exposed to. So used to, people didn't really get mold toxicity unless they were in a situation I was in, where they were in a historic home, they had these huge levels, but we've had mold. As long as human beings have been on the planet, mold's been here way longer, and we've never not had mold around us. But there are some things that are quite different now. One is that we don't have the detox capacities that we used to have. We're surrounded by chemicals. We have chemical levels we've never had in the past. And these chemicals have to use some of the same pathways that mold use.

So just a very starting point, we're seeing generationally, our starting point in terms of how well we can detox, we're going backwards, backward, and backwards, and we can see that in the studies of the toxins and the cord blood of newborns. One of the other issues is that we had these building code changes, one in the '70s and then one, again, around the year 2000. So homes are being built tighter. This is great for energy efficiency, right? And we need to do some things about energy efficiency. But one of my favorite sayings was from psychologist named Clare Graves, who said, "When you solve one problem, you create new problems," and that's what's happening. We've solved this problem or we're solving these problems of energy efficiency when we're trapping the moisture inside the walls and the humidity in the houses.

And we even saw that. Our house was built in 2000. And when the first summer came, could not keep the humidity under 50%, no matter what we did. And we're in a human region, most of the U.S. has humidity other than the desert areas. So we've got this humidity issue, we're using fungicidal paints. And when we use fungicide paints, sounds like a great idea, but what we're finding is happening is that these molds are responding by becoming...they're going on the defense, they're producing more mycotoxins, and those paints are actually killing off the weaker molds that would out-compete the more toxic ones like *Stachybotrys*, kind of like what we're doing with antibiotics.

The last one is that we are actually observing in the presence of Wi-Fi, mold becomes more toxic. That's the biggest one that goes on the defense, becomes more toxic and reproduces faster in the presence of Wi-Fi because if something's not been recognized by mold, so they'd cease it as a threat. And this has been observed again and again, again by environmental mold experts. So, a big issue with why all of a sudden we have this big jump in mold toxicity from, say, when you and I were kids, and I was the only person I knew that was chronically ill for most of my younger years, to now, it's just huge amounts of people that are chronically ill. More children are chronically ill. It's an issue in schools, it's an issue in work buildings. There have actually been studies on this showing that up to 85% of workplaces, over 50% of homes, and over in the '80s, they showed over 30% of schools had toxic mold. And now that we brought the Wi-Fi in, those studies need to be redone because it's even bigger issue.

Katie: Wow. And that makes sense why we're seeing a rise in this right now. What kind of symptoms does mold toxicity cause? I know it can be really wide-ranging, and that often the symptoms are the way that people find out that there's a mold problem in their home even to begin with. But what should people look for and how would someone know if they're experiencing mold toxicity?

Beth: We're looking for any variety of inflammatory-type issues. Now, when we're talking about mast cell activation, we have to think about what's triggering that. So, is there mast cell activation issues? Are people having skin issues? So I'm gonna go system by system. Skin is the biggest detoxification organ in our bodies and the toxins come out through the skin. So people may have rashes. They may have issues like psoriasis. I've had people who had fungal colonization on their skin. Their skin was peeling off in sheets. That's rare, but that can happen. What you often see, though, is hair loss, a lot of hair loss can get kicked off by these kinds of inflammatory triggers. Then if we think about the GI tract, these toxins are getting dumped into the GI tract. And we have to remember, this is not like a bleach kind of toxin.

I mean, bleach is not great, but they use these mycotoxins for chemical warfare. They've used these for some of the harshest chemotherapy. And these are quite severe in our bodies, what they do. So we can have in the GI tract, is it stumbling through all kinds of inflammatory GI issues? I've seen people develop Crohn's or have flares of Crohn's. It's been linked with issues like diarrhea, constipation because this can shut down your motility. We can have stomach acid issues. In the respiratory tract when we breathe these mold toxins in, they're very irritating, so we can have breathing issues, and we can have issues with sensitivities. They can

cause quite a lot of nervous system problems. So, in the nervous system, in that category, we're looking at anxiety, we're looking at depression, sleep regulation issues, having trouble with chemicals, smelling gasoline or bleach, making you much more sick than anybody else around you.

And then with the reproductive system, some of these mold toxins are highly estrogenic, particularly zearalenone acts just like an estrogen in our body. We get a lot of those estrogen dominant type symptoms in women, PCOS, menstrual pain, flaring, cyclical flaring depending on when estrogen is more dominant than progesterone. And then the other thing to know is that aflatoxin and ochratoxin are very carcinogenic, and they've been linked to the vast majority of cancers that are out there. So I see people that have had these what seem like unusual cancers in their 20s and their 30s or their 40s, even children developing cancer from these. And fortunately, I have not developed cancer, but something that's very heavy on my mind that I've got to really work on this cancer prevention because I actually ended up with about 30 years of mold exposure between that early home, other places that I rented, and then an office that I was in for 10 years.

So that's just a sampling, blurry vision. People can have vision issues, sinus swelling, congestion can happen. Tinnitus is really common, ear ringing drives people crazy. That's one of the things that people have the most trouble with. Heart palpitations, and, you know, again, that's just a sampling. Joint pain, muscle pain. It depends on where people's weaknesses in their body is and which mold toxins they have, what their particular constellation of symptoms are gonna look like.

One of the telltale signs, though, not everybody has this, but is an internal vibration. The only things that really cause that most commonly anywhere mycotoxins are Bartonella, and this can look similar to Lyme, or these tick-borne infections. The other is these lightning bolt pains or ice pick pains people describe. And these are actually nerve pains where it's triggering the nervous system. And a lot of people think that they still have Lyme when they really have mold. I've seen a number of people who did years of antibiotics. They did IV or oral antibiotics, herbal protocols, and the Lyme is actually wiped out. It's gone, but they still have symptoms. So the practitioners just keep giving them Lyme protocols, they don't know what else to do, and understandably. But there's this mold layer most of the time that we find in these chronic Lyme cases with people who aren't improving.

Katie: Yeah. And you mentioned the Lyme connection a couple times. And so you're saying a lot of people who are struggling with chronic Lyme actually might have mold as a potential root cause of that issue or at least why they're not able to work past it?

Beth: Yes. So mold is going to really wipe out what's called the Th1 side of the immune system, and that's our bacteria, our virus side, and that's our mold and other fungal species, candida killing side of the immune system, so smart strategy on the part of mold. Then when we start to lose that immunity and we get...then as that immunity comes down, chronic inflammation, the Th2 side goes up, that opens us up to all kinds of infections, Epstein-Barr, tick-borne infections, COVID, things like that. It makes it harder to fight things off. And I see two categories. Either people feel like they catch everything, and they're sick a lot, or they never get sick,

which is not a good situation either because that means our immune system isn't launching this kind of response. So if we wanna repair the immune system, if we have mold toxins, we've gotta pull those out of the body, then the immune system will kick back in. And I find that about 30% to 40% of people actually clear tick-borne infections on their own. Now, the rest 60% to 70% may have to go on and address it. People almost always clear Epstein-Barr and these herpes viruses that affect the nervous system like HSV6, and even parasites, people tend to clear parasites if you get this mold layer out of the way.

Katie: And you also mentioned mold being a trigger for mast cell activation. I know we did a whole podcast on that that I will link to, but just talk about that connection a little bit more as well.

Beth: Yeah. So we're talking about this Th1, Th2 system, so Th1 pathogen killing immunity coming down, this Th2 inflammatory side coming up. Mast cells are part of that Th2 response. They are going to have some activity early in with infections to try to get rid of this initial infection and then they should calm back down. But if we can't get rid of the underlying infections, underlying toxins, then mast cells are gonna become chronically activated. When they're chronically activated, that's when they start to get dysregulated. Mast cells' job is to create inflammation to protect us from toxins from pathogens, help us with injury wound repair. They also come on the scene when we're stressed. And we think evolutionarily when we had the highest stress was when we were running away from a predator, we might be getting cut up or we might have been in a, you know, some kind of fight or something, so they're gonna help with that wound repair.

We don't have that really much today, but if we're stressed, the mast cells in that level, they don't know the difference between you just were chased by a bear and you just got cut off in traffic and you're stressed about paying your bills. So they're gonna launch that same response and it all can snowball into this multi-systemic inflammatory situation. So not everyone with mold toxicity and Lyme has mast cell activation, but a good percentage of them do, particularly people that have these sensitivities to supplements or meds, chemicals, foods.

Katie: And it seems like the big first step in this is obviously identifying the problem, which on its own can be a little bit difficult at times because the symptoms are so wide-ranging. It can be hard to identify even a source of mold in the home or environment in someplace. But then that would lead to probably what is an even bigger step, which is then how do we deal with this problem once it's been identified? And I know there's a lot that goes into this as well, as well as things you've written about that need to be done before someone jumps into an intensive detox protocol. So let's talk about a little bit about solutions now. If someone knows or is aware of mold toxicity, what's the first step?

Beth: Yeah. The first step is actually to get out of the environmental exposures. Now, sometimes that's gonna take a long time. So I wanna encourage people to have patience. And that's the hardest step for everybody. It's overwhelming. A lot of people end up feeling like...they're almost traumatized by trying to figure out what to do by this. So, one, I just wanna assure people that 99% of people don't have to move out of their homes. And there's a lot online about you just have to leave everything behind and go live in a tent, you know, in the

desert. That's not practical for most people. It's not sustainable for most people. Most mold can be cleaned up. And we've had mold issues in our home, we've remediated those, my clients remediate, I've less than 10 people they've moved out because it was gonna cost more to remediate than it was going to buy a new place or move.

But we wanna reduce that exposure ongoing. And there's lots of ways to do that. While that's going on, so, just really wanna curtail, don't wait to address this until you get out of mold. Particularly in this kind of economy and where we're waiting six months for contractor, you don't wanna be waiting that long to take care of your body. So, in people who...I think about people having different kinds of constitutions. So there are people who just can take anything, they can take a ton of glutathione, doesn't phase them. That's not who I'm talking about here. They can do the more intense detox protocols and they're gonna be fine. What I really work with are the people that they're struggling to take things, they're struggling to detox. It's backfiring on them, it's making them feel worse, and they have to come from a different approach.

Those people, it's really helpful to start actually with calming the nervous system and doing things that settle the nervous system down. Anybody with chronic illness has this kind of fight or flight response that they're in, they are vibrating, there's a lot of medical trauma in this population again for very good reasons. And to settle all that down in a way that communicates to the cellular level of the body that you're safe, that you're in a safe place to be able to start to detox. Their bodies can be in, if we think about it very simplistically, fight or flight, which is our sympathetic rest, heal, digest parasympathetic. But these modes can't operate simultaneously. And so we're fight or flight and we're not healing, or we're healing, but we have to calm the fight or flight to be able to do that.

And it's really important that people realize, and most people have no idea how much sympathetic activation they're in, but you can get clues based on how rapidly do people talk? How does their voice sound? Does it sound calm and soothing, or does it sound strained? What level of tension it hold in their body, how much tension they hold in their jaw, around their eyes? Eyes will be hard when we're in fight or flight. And there's lots of ways to calm the nervous system, but there are two main branches of this, one is the limbic system, and this is the center in the brain that controls fear and emotions and looks for pattern recognition. So that's gonna be very involved insensitivities. An example of this is that I was in India many years ago, and I actually got dysentery. I was very sick. I know where I got it. I got it in an Italian restaurant. But by the time the symptoms caught up with me, my friends were bringing me Indian food, and I associated being that sick with the Indian food.

And I still have trouble with Indian food to this day. My limbic system made up, did this pattern recognition around Indian food, although that was kind of incomplete. It wasn't completely correct. So sometimes we have to reboot or reprogram these limbic system patterns. And that's very important around sensitivities to supplement, to medications, to foods. So limbic system is protecting us, we've gotta calm it down. And there's some great programs for that. But they're very targeted, not anything's gonna do that. We have to use the limbic program. Then the vagal nerve is the other side of that. The vagal nerve is really dysregulated by mold toxins. Also the limbic system, they're both affected. Vagal nerve is gonna control sensitivities as well, sleep,

anxiety, depression, and big for a lot of people in this population. Things like heart palpitations has their own blood pressure, motility, big role in constipation.

So a lot of times when people are just doing magnesium, they're doing the 5-HTP, they're doing bitters, all these things that you might do for constipation, it's not resolving, the vagal nerve hasn't been addressed. So we can address that from a signaling perspective in terms of helping calm it down from specialized listening programs, not a YouTube meditation, but ones that are developed for the vagus nerve. And sometimes people have to get some work done up here at the top of their neck to release it because if we have...the neck is out of alignment up here to put pressure where the vagal nerve comes out. So those are great starting points.

Then when people are in this, what I call either the super sensitive or sensitive complex population, we move into mast cell supports, and that's to calm down some of this overactivation. We don't wanna wipe the mast cells out entirely, just wanna settle it down a little bit.

And the mast cells in the nervous system are actually in constant communication. They're mast cells that are nerve ending and the nerves' nerve endings release neurotransmitters that talk to the mast cells, the mast cells are releasing mediators that talk to the nervous system. So if we work on both those angles, we can start to relax the nervous system, calm the mast cells, bring this inflammatory load down and this whole hypervigilance that's happening in the body, in these situations, relax all of that. And that lets people start to tolerate and take things they need to take. Then I take them through step by step process where we start very slowly with binders and we target those for the type of mold toxins they have.

And that's why the testing's important, both to track the patterns of excretion, when are we gonna be done with this, and to also really precisely home which binders, which liver support's gonna help that person. And then some people have to go on and do antimicrobials if they have mold colonized in them. So that means it's actually growing in them. So if we have that situation, they're variety of herbals that can help. Some people need prescriptions depending on how significant that is. But the key is slow and steady and never going into being flared, never pushing into these detox reactions because that is gonna be registered as a threat again for the nervous system, the mast cells. And then we start these downward spirals. That's the big picture view of it.

Katie: So it sounds like there is a very much individualized treatment plan that you're gonna wanna follow based on actual testing like you said, and that like in many areas of health, but especially here more is not better. You don't wanna just find out you have mold and just throw everything at it at once because you're more likely to actually create the opposite and create more stress in the body and make healing slower, it sounds like.

Beth: Yes. So it's really important that people try one thing at a time, introduce things. I like for sensitive people to start with what I call sprinkles, so they just open the capsule. Sprinkle means the equivalent, like a

few grains of salt, and get that into the system. Let the nervous system and the mast cells experience it in a way that feels safe because, again, those are looking at safety and when they get hypervigilant, you're gonna start to target everything as a threat. So if we're sensitive to get things on board, we have to kinda slip underneath that hypervigilance with these little sprinkles, let the body experience it and go, "Oh, okay, I didn't die from that. I wasn't in bed for 24 hours. Maybe that's okay. Let's try two sprinkles tomorrow. And then three sprinkles."

Now, some people can go faster than that. Everybody's different. And they have to see what their body will let them do. But for the super sensitive people, if they're extremely sensitive, we can do a sprinkle in water, stir it, and they start with just a little sip. Sometimes that's the way we start getting things on board, but we can't just throw in very sensitive people these big combo formulas and things like that. Now, I don't want to give people the impression that they can do just a couple things and they'll get it through because this is hard to get... It's not necessarily hard, it's just it's gonna take work to get through, and it is gonna take layering things on overtime. I just wanna shift the body and the direction needs to go with a feather and not a sledgehammer and layer in the things that are gonna be supportive, gonna be helpful and support the body in this right order of operations.

That's what makes all the difference with people who are sensitive. Now, again, people that aren't sensitive, they can go in there, they don't have mast activation, they can start some binders, make sure you're targeting to the mold toxins so that you're not missing things, get those liver supports on board. If there's colonization, move into these antimicrobials, and then they can go faster. But we have to listen to the wisdom of the body and the rate that it's gonna be comfortable going. That's the real key, not to set up kind of an outside timeline that's not respecting that natural wisdom of the body.

Katie: That makes sense. And you use the term mold colonization as well. And it sounds like that's when the mold is actually, like, active within the body, but can you just differentiate mold toxicity versus mold colonization?

Beth: Yeah. So mold toxicity is where we've inhaled... Usually, we inhale the mold toxins. They can also come through our skin, but we're inhaling them. Anything that we inhale through the lungs is gonna get into the bloodstream. Then we get these mold toxins in the bloodstream and they are fat-soluble, so they're gonna be stored in the tissues. And that's important when we talk about testing that these are stored in the tissues. They're not freely circulating for a long period of time in the bloodstream. And then mold colonization is where we actually inhale or consume the spores and they colonate within us. Just like you can get a bacteria growing in you or a virus, mold can grow in you as well. Most common way is that we inhale it through the nose, it populates the sinuses. And anybody with sinus congestion, we have that post-nasal drip and we're swallowing that mucus.

So we swallow it and then it's down in the GI tract and populating the GI tract. It can colonize in the lungs. It's very rare, doesn't happen very often at all for it to actually take up residence in the lungs. But I've seen it a lot

in the sinuses, a lot in the gut, in the ears, also in the vaginal canal. Some people have these really stubborn vaginal yeast infections they just can't get rid of. Well, sometimes it's not candida, and they might have it cultured, it's not candida, it's not bacteria. It may actually be a mold species. So I've seen that happen before as well. One of the things to keep in mind is that...and this is why I see mold as a more primary issue to chronic Lyme. Now, acute Lyme, somebody needs to treat that right away as quickly as you can, but we have these chronic Lyme, chronic Epstein-Barr. Viruses and bacteria, they weaken our bodies, but they wanna keep us alive so they can keep replicating.

Molds decompose. So if we think about the role of mold in nature, and you have that loaf of bread that sat too long or that orange or that apple and starts to grow mold on it, and everybody's seen what that looks like, or if you've got nature and, you know, mold is in the fungi category, so you get mushrooms growing, there's a huge tree that fell down in my backyard and there are all these interesting mushrooms growing on it, that's breaking that down. And what they do is they release different kinds of types of enzymes, proteases, amylases, hydrolysis, and they are breaking that tissue down to get the nutrients out of it for their own survival. That's what they're doing in our bodies. So if we have colonization, we have to get it addressed. We have to get rid of it. It's very different than having an Epstein-Barr virus and letting it go dormant.

And with these molds, if they're growing in us, they're going to keep producing mold toxins inside our bodies as well. So we could have the whole environment cleaned up and still have a huge mycotoxin load if we're not getting rid of those. So what I encourage people if they think they have that colonization, to keep going, if they're not getting rid of the mycotoxins with binders and liver supports to keep going in that phase. And about 70% of adults with mold toxicity are colonized. Generally, if you've got this long exposure like I had, you're gonna have colonization. If you've had a short exposure, you may not be colonized. Children, though, are less often colonized. So the statistics actually reversed, and children are about...only about 30% are colonized. Seventy percent are just the mycotoxins, and that's much easier to clean out. Children usually bounce back quickly with this.

Katie: That's good to know that kids bounce back quickly. It makes sense. They tend to do that across the board.

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immune and gastrointestinal health, and truly haven't found a product of theirs that I didn't feel a difference from. Check them all out and see for yourself at [justthrivehealth.com/wellnessmama](https://www.justthrivehealth.com/wellnessmama). Use code `wellnessmama15` for 15% off.

This podcast is sponsored by Wellnesse, my personal care company focused on creating safe and natural products that nourish your body from the outside in so you can feel great about your family using them. I'm so excited about our best-selling mineralizing toothpaste that now comes in three different options: original mint, charcoal and strawberry (a kid favorite). Unlike most toothpaste, ours doesn't have a poison control warning because it only contains ingredients that are safe and beneficial to your oral microbiome and to your tooth enamel. It's centered on hydroxyapatite, which is a naturally occurring mineral used in tooth enamel, with things like aloe, neem and green tea to support optimal oral microbiome balance in the mouth. Our thousands of happy customers tell us how much fresher their mouths feel and how their teeth keep getting whiter and stronger naturally. Check out our toothpaste and all of our products at [Wellnesse.com](https://www.Wellnesse.com).

And you've mentioned binders, and I'd love for you to kind of explain... I mean, the name suggests what it does, but maybe what are some of the common binders and, like, what would you use in combination with people once they've identified the problem?

Beth: Yeah. Well, what's interesting about the thing, binders is that these binders don't...they don't grab onto the toxin and just hold it. They really do what's called adsorption. They don't absorb it, they adsorb it, which just means there's like a type of attraction. And you can think of it like a sock. They get stuck on your clothes when you pull them on a dryer, that's static clean. So they can fall off as well. The reason that's important to know is that these mold toxins are very complex structures and lots of surfaces. So one of these binders will have an affinity or an attraction to one side, and then one will have an affinity or attraction to another, and then this side, and then this side. The more sides we can cover... We know something's gonna fall off along the way, but if we can cover more sides with using a variety of the binders that we know target these particular mycotoxins, we're gonna do a much better job and a much more efficient job moving those out.

And I do wanna tell people before you start binders, make sure you get the constipation resolved. Don't take binders if you're not having a bowel movement. So the way that everybody remembers this is when I tell them no poop that day, no binders. And people will remember that. So not all binders work the same with all mold toxins, they're all quite different. So just some examples, trichothecenes are one of the most mast cell triggering of the mycotoxins, and they will be bound...this little category, they're produced by that black mold *Stachybotrys*, and charcoal, clay, chlorella, and there's a type of fibre that comes from konjac root called propolmannan. These work for those trichothecenes rhamnosus works for that. And this is all out of the studies that have been done.

I was on a research team with Dr. Neil Nathan and Dr. Joe Mather, and we've worked out some models for this, some tables for this. So a different one, gliotoxin, it can be bound by the bentonite clay and a little by this propolmannan. The *Saccharomyces boulardii* works for that. And *Saccharomyces boulardii* will also work for aflatoxin and another one called zearalenone. With the aflatoxins, you can use clay, you can use charcoal, you

can use chlorella, but then that zearalenone, the charcoal, and the chlorella really don't work. Clay works very well, the *Saccharomyces boulardii*, and then we can use zeolite. And there's a Probiotic called *L. rhamnosus* that the cell wall of it will actually bind trichothecene and zearalenone.

And then there's another one that's really common called ochratoxin. So charcoal is helpful for that, that propanone can help, zeolite can help. There's possibility of seeing some studies maybe for clay, but the best binder for that is actually Welchol, which is a prescription binder or cholestyramine, but we don't see Welchol cholestyramine in the studies or clinically clearing these other mold toxins. So this just helps people see, and I know people probably want these tables, so we have them on our website, the mold section, people are welcome to access them. They're free for anybody. And that we don't wanna try to use one single binder or just one type of combo binder. This precision approach works much better for people.

Katie: And I know people will be curious if, and I'm sure it's very individualized, but how long typically into mold treatment do people start to feel better a little bit or see result? I know it's an ongoing thing until the problem is completely resolved, but do people start to feel better pretty quickly?

Beth: Yeah, it depends which category people are in based on that sensitivity level, first of all. So let's say they're easy and they just have mold toxicity, no colonization. They're probably gonna start to feel better within about three to six months, and they're gonna be done the fastest. They're gonna be able to onboard things very quickly, get this mold out, to tolerate a fast rate of detox. Then if we have somebody who is let's say they're sensitive, but they can take some things, we've gotta spend time with the nervous system, we've gotta calm those mast cells. And they only have mold toxicity, no colonization. May be looking at a year and a half to three years for them. Somebody is extremely sensitive, they're in that super sensitive category, and when I meet them, they can't take any supplements, they can't take any medications whatsoever, we may spend six months just settling the nervous system and getting them out of whatever exposure.

Some people, it's taken a year before they can start the detox protocol and they may be longer. So they may be looking if they don't have any colonization, maybe about three to four years. Now, when somebody is in that super sensitive category and they have colonization, we may be looking at five or six years. So the key is the patience and really listening to the body's pace. And one of my favorites sayings is if we try to go too fast, it's gonna be slower. But if we go slow and we take our time, it's gonna be faster in the long run. I really encourage people to keep, like, a journal and to track what they're onboarding and the rate and their symptoms so that if they get into something flaring them, they can roll it back. That's very helpful, saves them a lot of time in terms of how long this is gonna take, and to just listen to their bodies, to settle into it's okay for this to take the time that it takes. It's not a quick fix. Some people can guide themselves through particularly if they don't have that colonization and they're not super sensitive, but a good number of people are gonna need a guide in this area.

Katie: That makes sense, especially with something this specific that has so much nuance in recovery. And I would guess even during those timelines, people probably feel better in stages before the end of that time. And so even if someone might not be fully recovered for years, they might start to see changes along the way.

Beth: Absolutely. Yeah. I don't want people to think they're...it's rare. It does happen. It's a small percentage of people that they may not feel well until all the mold is out, but the vast majority of people are getting steady progress as they go. And just my own self, I've had the third-highest mold toxin levels I've seen in my practice, huge amount of colonization. And, you know, I've been on this road for a long time, but I've been doing very targeted mold detoxification for three years. And I had come a long way, but when I started that, I could only do about 15 minutes on the treadmill. I still had a lot of chronic fatigue and that was slow. I can do an hour at a good pace. I'm not running, but I'm at a good walk. And I've got my brain back. I don't have anxiety. I sleep really well every night and I'm still not done. I still have some ways to go. I've got my histamine tolerance back. I can eat good variety of foods. I've got some FODMAPs to get back on board, but that's an example of how things can improve along the way.

Katie: Awesome. And I know you have another engagement right after this, so respecting your time, I don't wanna take too much more time from you. But the last couple of questions to wrap up, I know I've asked you this probably before in our first episode, but any books that have had a big impact on your life, either throughout the course of your life or lately that you would recommend?

Beth: Gosh, you know, there are so many, but, lately, I've been thinking back. This was one I read a long time ago was "The Four Agreements." And it was so instrumental in my chronic health because I kept whipping myself and telling myself, "Well, you should be able to get more done." And I'm not a lazy person. I'm an overachiever. So it helped me soften my language and be more loving to myself. And I think that's always a nice one to go back to and remember that the words that we use even to ourselves are very powerful. So it made me shift from going, "You should be able to do this," to going, "You can do this," just break it down little steps and kinda being my own cheerleader.

Katie: I'm a big fan of that book as well. I'll make sure it's linked to the show notes for you guys listening along with, I mentioned, your first episode. For people who either aware of that they already have mold toxicity or think that they might and need a starting point to jump in for more information, where can people find you online and where would you recommend starting?

Beth: Well, we have a website called mast, M-A-S-T, cell360, C-E-L-L-3-6-0.com, tons of free resources. There's a whole mold section on there. And we talk about environmental mold, lots of great tips for people. It's all free. We talk about the overall picture of detoxification. Binders are all on there that we talked about and these binders by mold toxins. And then if people are looking for more in-depth information, I put a course together called the MC360 Precision Mold Master Class. And there are two levels. There's a basic for people who are just learning about the stuff, the brain fog, they don't want all the science lectures, just wanna get to it. And it takes people through if they have that mold toxicity. Then the advanced level gives all the science

lectures. You don't have to listen to them, but they're there, and it takes people through the colonization and lots of troubleshooting as well, so different options for people.

Katie: Wonderful. I'll make sure those are linked as well for you guys listening while you are driving or exercising. All that along with the show notes for this episode will be at wellnessmama.fm. And, Beth, I know how busy you are. Thanks for your return appearance today, and for sharing more wisdom with us.

Beth: Thank you so much. I just really appreciate all that you do with helping us get this info out for people who are suffering.

Katie: Thank you. And thanks as always to all of you for listening, for sharing your most valuable resources, your time, your energy, and your attention with us today. We're both so grateful that you did, and I hope that you will join me again on the next episode of the "Wellness Mama" podcast.

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.