



## Mold On The Mind

Dr. Heather Sandison, N.D. interviewing  
**Dr. Jill Crista, N.D.**



**Dr. Heather Sandison, N.D.**

Welcome back to the Reverse Alzheimer's Summit. I'm your host, Dr. Heather Sandison. I am so thrilled to have a colleague of mine Dr. Jill Crista here with us today to talk about the dangers and the solutions to mold and mold toxicity. Dr. Crista is a naturopathic doctor and bestselling author and internationally recognized educator on neuro-inflammatory conditions such as mold, Lyme, PANDAS, PANS and post-concussion syndrome. She's passionate about helping people recover their health after mold exposure. Dr. Crista is the author of *Break the Mold: Five Tools to Conquer Mold and Take Back Your Health*.

And she supports mold sick people through her inspire membership. She also provides online training for medical practitioners wanting to become more literate. So her book is phenomenal. When you are looking into mold if you think that this is something you're suffering with, this is really a must have for anyone looking to really understand what's going on and find the solution. So we're gonna talk through a lot of them today and right now, but really to get into the depth, there's not, we can't cover all of it in an hour. So prepare some luncheon, thank you so much Dr. Crista for being with us.

**Dr. Jill Crista, N.D.**

Thank you so much for letting me be part of this and spreading the word about mold and its connection to dementia and it's huge. So thank you very much.

**Dr. Heather Sandison, N.D.**

It really is. So can you just launch in directly into like how does mold exposure affect the brain.



**Dr. Jill Crista, N.D.**

Sure. So we should kinda understand what about mold is affecting the brain? So we most of us know about mold allergy and we think about like sinusitis or hay fever or asthma. And those are the generally recognized CDC definitions of mold illness. That's missing a whole huge gamut of the other parts of mold that can make us sick which is the mold chemicals, happily living mold, just metabolizing and off gassing, I kind of joke these are mold farts you know. And then there are these toxins that mold makes to defend its territory. And the intention in that toxin is I want to kill the other living microbes around me to defend my territory. So the intention is to create intentional harm and we are not the target of that but it affects all living things.

So it affects us at the cellular level. And that is accounting for probably 75% of the symptoms in my patient base. It's important to understand that these mycotoxins are lipophilic which means they are like fat or oily types of tissues and they can soak right in. So they don't have to have like a carrier protein or a key to get into a door or anything like that. So basically the path of that mycotoxin is we breathe it in through our sinus passages, our lungs, goes from our respiratory system right to the bloodstream, which takes it then to our detoxification organs but it can also deliver to the brain if it's one of those toxins that can go right through the blood-brain barrier. Normally we have this barrier that's a very selective barrier that is sort of like you know, okay blood, wait, wait, wait just one second.

I'm just gonna see if everything that's in here can go through and if it can it gets ejected back into the body circulation. Well, some of these mycotoxins can go right through that and they can accumulate in the fatty tissues in our brain. I mean, our brain is one of the more fatty areas of our body. So something that's oil soluble or fat soluble, that means that the areas of our body that have more fat are going to get more laid in with these toxins. So that's bone marrow, brain, nervous system, the lining of our gut. I mean, those are all areas that really get a hit. Some mycotoxins that can cross the blood-brain barrier. They can get in there after mold sort of destroys our gut. It can cause mold is really, really hard on the gut. So you can get a leaky gut. If you have leaky gut you have leaky brain. So now you have things that are getting into the brain that shouldn't be there because the blood-brain barrier is not discerning enough now to close the door.



**Dr. Heather Sandison, N.D.**

Yeah, it's just kind of letting everything in. And this is part of that explanation for why more toxic patients unfortunately they get sent to gastro and they get sent to neurology and they get sent to psychiatry because there are so many symptoms across so many systems in the body. It's like every expert, every specialist is weighing in, but no one is putting them back together and saying hey, there might actually be one simple explanation, not that simple, but somewhat simple. When it's one thing causing lots of symptoms it can start to get a little convoluted and confusing. And yet when we reduce that mold toxicity a lot of things resolve including gut symptoms and potentially dementia. So tell me, have you ever seen a dementia patient who has reduced their mold toxicity and gotten better?

**Dr. Jill Crista, N.D.**

Oh yeah, certainly, certainly. There's one kind of interesting one. You know, a lot of times we think about mold as being a building problem. And a lot of times you think of it as being sort of an old building problem, something that where it smells that it's got a funk, you know there's a little bit of musty smell or even moldy smell. And you think ooh yeah, this is definitely a moldy house. Well guess what, mycotoxins which are this ultra small, small, small, small, they're 50 times smaller than the smallest spore. These things can go right through building material, they seep through. And so if you have all of your mold moldy parts behind drywall or under flooring or in your attic or something like that or in your furnace coils, you may not smell a musty smell because the mycotoxins themselves don't have an odor. And that's where we get a lot of mist mold because people say well no, we're in kind of a new house.

Well, it can happen in a new house if they didn't do something right. You know, if the roofing job was wrong or they finished a basement or certain things like that like you can have a mold problem in a non stinky house. So that's number one is those mycotoxins don't have a smell. So that's how it got my patient in that didn't have a building problem. She had a CPAP problem. So she has been, this family has been my patient. I see their adult children and their children. And it's just one of those things of living in a smaller town. It's just wonderful. And the adult children came and said, we are getting really worried about mom. We're really worried about her. She's starting to have balance issues. She started to forget things, leaving the garage door open overnight.



You know, some of those things where it's just like something's going on, she's falling or failing. And this is someone who is sharp as attack, kept all of us on our toes, that kind of thing. And it was a pretty rapid decline. And it turns out the connection is that she stopped cleaning her CPAP machine because Medicare changed their reimbursements, her plan. So her husband also had a CPAP and so she would clean his machine and then just like replace the tubing on his and that kind of thing. But then just like rinse hers with vinegar or not even clean it thinking that he's the one with real sleep apnea 'cause he has the snoring problem.

I just have restless legs. It's not that big a deal. And so she didn't change it. And when we went through a neuro MRI, which is a nice tool and it showed some signs that we typically see with something like either a stealth infection or with a mold, some kind of biotoxin type exposure. And there aren't standards for that yet but I think really smart people are working on that right now. So when I looked at the MRI I thought, what, let's go do a home assessment. And we sent in an inspector, I'm a real proponent of doctors are not building experts. Doctors should be doing doctor stuff, get some building experts. And so we called in the inspector that I worked with for a couple decades and she went to the house and she said, I didn't really see any huge warning signs 'cause the most important inspection tool is your eyeballs, a skilled person's eyeballs.

And she took some sampling and everything like that. And she said, just for giggles let's test the CPAP machine. And this was one of the first time like way early in the process before I really understood that every CPAP machine needs to be tested and her CPAP machine was loaded with mold and endotoxins. So that's bacterial toxin. So she was sort of avoid using CPAP and the kids were like, mom you have dementia because you're not using your CPAP. And by using it more she ended up getting more dementia symptoms. And they were the kids were really onto something because we're seeing now Dr. Dale Bredesen, the latest research coming out of his research and his lab is that nocturnal or low nighttime oxygen saturation is one of the key features for dementia. So the kids were onto something, but they enforced use of something that was actually contributing to her problem.



**Dr. Heather Sandison, N.D.**

I'm so, so glad you're bringing this up because it is something we go over and over in the summit not only mold, but also the oxygen, how important oxygen is to the brain not only at night but all day long, but that diffusion is absolutely essential and some of the recent literature is even suggesting that middle age. So in your 30s and 40s it's not getting enough oxygen at night, not getting enough sleep or good restful sleep at night is predisposing people to dementia. So it is so essential, but you can't do one and not the other, right. You can one at the risk of the other. So making sure that that CPAP machine is pristine and not poisoning you slowly every night.

**Dr. Jill Crista, N.D.**

Yeah, I love-- Yeah. Oh, I'm sorry. My computer kind of cut out so I didn't hear you there. I love the cleaning systems that are closed ozone system, something called like so clean. These are systems where every morning you wake up you take your CPAP off, you put it into the machine, it closes. So there's no ozone coming into your air and it runs through even the fan of the machine. So it cleans the whole thing in between. I think this should be covered by every insurance company ever because it is so common now that you know, we've been testing CPAP machines for probably now the last 10 or 12 years. So many of them are moldy in between, they're just replacing tubing every three months does not clean the machine.

So yeah, I think huge, like it's a big, big thing. And we talked about oxygenation, guess what the body does being really super smart. Like we both are naturopathic doctors we're trained that the body has an innate desire to heal and protect us. So if it is sensing that you're breathing moldy air or mycotoxin air which can happen if you become colonized in your sinuses, it says, okay, well we're just gonna under breathe and breathe enough to survive but not thrive. So you get low oxygen saturation as a norm because it's also trying to mitigate or minimize the amount of toxin that you're exposed to. So with my patients we have to actually teach them how to read again, like they have to relearn vagal nerve breathing through alternate nostril breathing or something like that. Some technique to as part of their healing process to get them breathing again, their innate breathing. Amazing.



**Dr. Heather Sandison, N.D.**

Which is absolutely foundational, right? How we breathe, getting that oxygen, getting perfusion, getting the nutrients we need, where it needs to go in the brain for brain healing. So you mentioned speaking of breathing and keeping things moving, you mentioned that the solution to pollution is dilution. I love this. The solution to pollution is dilution. So such a good kind of rule to live by but tell us a little bit more about what you mean by that.

**Dr. Jill Crista, N.D.**

Yeah. So this was drilled into me from my environmental medicine instructor Dr. Walter Crinnion, the late Dr. Walter Crinnion. I know we have to have kind of a moment. Yeah. So he that was his phrase, solution to pollution is dilution. So if you are trying to dilute a oil soluble type of a toxin, hydration isn't necessarily gonna make a big difference, but hydrating your oily parts is, oiling your oily parts. So that means I have a follow-up phrase from that 'cause I love alliterations and rhymes. So you need copious, clean, correct fats. So lots and lots and lots of fats so you can dilute the oil soluble toxin, and lots of good, they need to be good quality. So those organic as much as you can do it, wild fish oil as much as you can do wild. And in my patient base we especially have dementia is starting. We do go beyond diet, even though we'd love to use diet as a remedy, you're gonna need way more in supplementing that in order to get the dilution job done, but it's not just taking the oil. You also have to the next step of that is our oil absorber which is bile. And so many people are averse to the very things that we need to eat to secrete enough bile to now catch all those fats and get them up to the brain tissue to dilute. Yeah, so I'm a bile fan I absolutely love bile I think is so under appreciated as a body fluid.

**Dr. Heather Sandison, N.D.**

So just so everyone knows Kelly Halderman does another great talk about bile specifically and she called it phase 2.5 detox. And both Dr. Nathan and Dr. Kelly Halderman talk about how important understanding the system is. So you're gonna hear it again from Dr. Crista right now because we just want you to know how we can't really talk about this too much. Mold, bile, these pieces are so essential to understanding causes of dementia and reenforcing them. So Dr. Crista please like dive in. What is bile? Where does it come from? How do we make it? How do we make it better? How do we get in our favor?



**Dr. Jill Crista, N.D.**

Yes, yes. And I wanna also cover pre-binders and binders. So in my book, pre-binders are the things that get bile moving. So if you're there with a binder and you don't need to buy all the catch that doesn't make any sense, then you're just creating nutritional deficiencies. So what is bile? This is a fluid that our body makes to emulsify or break up fats. So if anybody's having a lasagna pan in your sink, and you add that dish soap, that's what's happening. It's basically making the grease go away by breaking it up into tiny, tiny little droplets. When our fats are into tiny, tiny little droplets like that in our gut, now our gut microbiome can munch on all those and their metabolic byproduct is healthy fats for our body. And then the bile grabs those and it recirculates and goes back up to the liver. And the liver says ooh, that's a great nutrient. Let's put that in the blood system.

So bile is this highly recirculated fluid in our body. We recycle bile 93, 95% of that, which allows us then to store our fat-soluble vitamins which helps you keep your vitamin D level up through the winter when you're closed up inside. It's a real gift for us. It's also how we fight viruses from vitamin A, whenever there's a huge load, the body can dump a bunch of vitamin A into the system and fortify our immune system. Fantastic. Problem, when you have now a fat soluble toxin, 'cause that means we recycle it over and over and over again, the bile carries it to the intestines, nobody there, and none of the microbes want it. So nobody chews it up and then it carries it back to the liver and the liver has to repackage it. I call this the definition of detox insanity. You know, the liver is like I just did this.

You know, why are you bringing this to me again? And each time it does it it has to use nutrients up again. So we get glutathione deficiency. We get some of our liver detox pathways completely worn out. So bile also does all these other things for us that are non detoxifying which is just that's the part where I just get super excited. The presence of bile in the intestine increases our secretory IgA which is our localized immune system. Bile helps to build the retina of our eye. So many people have mold sickness. Their first symptom is fatigue and vision changes, but they're not like big enough vision changes. They just think, well my eyes are gone. And that can be an early sign for dementia. A lot of my patients that have visual symptoms and brain fog, then later we were able to connect that that was their first brain symptom. So bile and a lot of these people have really sluggish bile because they're loaded with all these toxins.



It also is neuroprotective. It reduces neurodegeneration and bile reduces prion conversion. So some people know as mad cow disease. So having that bile moving and getting the bile moving I wanna add a detox step in there 0.5 called pre-binders because that's what we need to get going, not just eating the fat, but then things that are pre-binders are the taste of bitter. So that bitter tastes on our tongue is what starts all the engines of digestion, not just bile but insulin and digestive juices, but bitter is specifically targeted to bile making. And so that's where I just love. It's we need to make, oh and so we talked about then what you're doing with the binder is you're grabbing the bile. And there are lots of different types of binders for different types of toxins that Dr. Nathan has really done a lot of research on.

In my patient experience, if it's a water damaged building exposure, that toxin is bound in the bile because it was in the bloodstream before it was in the gut. So that's what I'm targeting is binding up things that are binding the bile like insoluble fiber is a very, very good bile binder. Allo, kale, steamed kale. There are research studies out there about people missing their gallbladder and they actually have now too much bile in their colon. And so these are studies looking at how to catch as much bile as we can. And they find that steamed kale is about 35 or 40% effective as cholestyramine, a pharmaceutical to pick up bile and it's non depleting, it's nutritive, and it's doing the job of interrupting that circulation.

**Dr. Heather Sandison, N.D.**

That's great. Can you also name a few of the pre-binders? I'm so curious.

**Dr. Jill Crista, N.D.**

Yeah. Yeah. So pre-binders is depending on how gunky your bile is in your gallbladder, if it's really sludgy to the point where you might have gallstones, we might need to use Ox Bile because that's we're actually needing to make more. That's one of the things with using a lot of binding is that we can deplete the body's nutrients where we were supposed to just make new clean bile. But if you've been on binders too long and they're really aggressive, we need to first work on nourishing those nutrients. So that might be the extreme heavy handedness is things like ginseng, Ox Bile, things that are gonna be really pushy. Chelidonium was one of my favorites, but you can use chelidonium homeopathically and it has a nudging effect.





So depending on where somebody is, if they just need a nudge, that's great. But most people I start with bitters on the tongue because we do see that the actual interaction with the taste of bitter, not just taking it as a pill, which is a lot of people's not their favorite thing to do. It was a little better on their tongue, but about five to 10 minutes before eating, putting a little bit around the tongue or starting your meal with some bitter greens like arugula or watercress. So those can be prebinders. The sky's the limit on different things that we can do. One of them in the middle that is just my favorite all around reliable is dandelion. And that might be running out to your yard if it's that time of year and grabbing a few dandelion leaves and eating those before your meal or taking it as a capsule. But I do encourage people to interact with the flavor of the plant.

If you're taking it in capsule, still put at least one drop toward the back of your tongue. Once those bitter taste receptors are the target of over 50% of the drugs on the market right now. We have bitter taste receptors everywhere. We have them in our brain, not just it doesn't have to just do with digestion, our innate immune system which we're seeing is related to the tau proteins and dementia. That is part of the innate immune system in the brain. Well, guess what? You can stimulate that immune system in the brain by having bitter on your tongue. The tau proteins end up being really, really good sponges actually for microtoxins. And so just putting bitter on the tongue, how simple, so if it's really horrible for you just think, okay it's only three times a day, really you can do this.

**Dr. Heather Sandison, N.D.**

Bile is pretty expensive to make from like a metabolic expenditure sort of perspective. And you're talking about depletion using binders. Is it possible that we can have too many binders and we can be kind of especially for someone who's fatigued already who really doesn't have enough energy to begin with, is there a risk of doing too many, too much?

**Dr. Jill Crista, N.D.**

Too many binders? For sure. I mean, I've seen once people started to know me in the line world is like the mold lady then you get referrals. And I saw people who were put on cholestyramine for months and months and months. And now they had vitamin A deficiency. Vitamin E deficiency is one of the key anti-oxidants for dementia. They had vitamin K deficiency.



They had deficiency in the amino acids that have to do with making bile one of which is glycine, and glycine is a very critical amino acid in both making glutathione and also in our brain called GABA, which is our calming, it's a calming neurotransmitter. So guess what I saw and guess what we see as a lot of mold, anxiety, anxiousness, people are just, they first of all their brain is saying, we're breathing something not good, but they don't their eyes and their ears, their senses can't tell they're in danger because it's no smell and there's no tiger in front of you.

So you have anxiousness anyway because the body's like, we're not safe, we're not safe, we're not safe, but you can't figure out where's that coming from. And then the second thing is that if you don't have enough of the amino acid to make your calming to say okay, I'm looking around, I don't see anything. So I need to calm that reaction down. If you don't have enough glycine you can't make that neuro-transmitter. So you get stuck in the loop. And I'm sure Dr. Nathan talked about limbic looping. I mean, that's part of that process. If you're on binders for too long you're missing that nutrient.

**Dr. Heather Sandison, N.D.**

Yeah. So important to know, right? Yeah, and I've seen the same people come in with four grams of cholestyramine four times a day and it's just sort of radical. And after some time they actually are creating new symptoms that they weren't previously really, really important to understand that we're supporting not just we don't wanna do this reductionistic thing whether it's dementia or mold, it's not about one thing. It's about how do we support the entire system get every cell performing better than it was yesterday and optimized in terms of its function. So that whether it's your gut or your brain or your right toe, it's all working better.

**Dr. Jill Crista, N.D.**

Right.

**Dr. Heather Sandison, N.D.**

So I'm curious, are there particular mold treatments that you've seen most helpful when it comes to dementia and brain function?



**Dr. Jill Crista, N.D.**

Yeah. You bet. So resveratrol would be one of them. And we see this in animal research. There's really not a lot of human research. And there are to my knowledge no human clinical trials where they're administering something and then they see if the dementia improves. So this is just from my practice experience is probably very similar to your experience as well. Resveratrol is one of those bioflavonoids. And I talk about bioflavonoids in my book because this is what they feed animals to protect them. Like that's something that people are talking about binders, but no he's talking about bioflavonoids. And on the scale of like, what do I think is more important? I would say bioflavonoids are way more important than binders, as long as you're having some insoluble fiber or some steamed kale or something like that, you don't really need to do much more if you're doing enough bioflavonoid to protect the system.

And resveratrol is one of those bioflavonoids that can both shut down asthma which is really amazing. And a lot of people with mold exposure also have spore exposure. And so they do have some asthma symptoms or lung symptoms, but it's also specific to the brain in that it calms down the inflammation. So we were talking about the key part about the immune system, the innate immune system of our brain and that the tau proteins are part of that, that gets stuck in a perpetual loop. And it doesn't mature into the next adaptive phase of our immune system when you have dementia. Well, resveratrol helps it mature into that. It helps to reduce the inflammation so that that part of the immune system can then go through its natural cycle and not stuck in a loop.

So that's one of them I love. Of course, fish oil, fish oil, fish oil. I just talked about that one and melatonin. So there's a lot of connection between sleep and dementia, lack of sleep, increased dementia, that kind of thing, lack of restorative sleep, lack of oxygen. And what we see with melatonin is that it does help. It's more primary antioxidant in the brain. And so it helps also to do that entire set the milieu of the brains that this is no longer an inflammatory situation. Circulation can get to where it's supposed to get to. And it is also a master hormone that is helping the central nervous system to do all of its normal things like thyroid function and steroid function or steroid manufacturer and some of those neurotransmitters, oh I'm sorry, hormones that are really helping our neuro-transmitters work.



**Dr. Heather Sandison, N.D.**

So I have a handful of questions and so excited I love this . One danger think that comes up sometimes with bioflavonoids is people go, does that mean grapes? Does that mean wine? So we can make sure that we're clear about what sort of bioflavonoids are very helpful and what can be a little bit more dangerous when it comes to brain function.

**Dr. Jill Crista, N.D.**

Yeah, so to get enough, so there are some studies on the plasma concentration of resveratrol to make a difference. And that is a gram of trans resveratrol everyday. And I usually have my patients divide that out throughout the day. So we're kind of dripping it up to the brain all the time. Guess what? That's 60 bottles of red wine. That's like you're not. So don't take that as an excuse as like oh, I'm having my resveratrol, you know so I'm gonna have another glass because I'm gonna help my brain. There is some research that shows a little bit alcohol might be beneficial, but that means a little bit. And so I think that taking that information realizing resveratrol that's coming from plants like Japanese knotweed is incredibly beneficial. It's very high in resveratrol, the right kind of resveratrol. And it's not becoming an excuse where you get to think oh, I can just drink wine.

**Dr. Heather Sandison, N.D.**

I think that that's something really worth mentioning because we're doing a clinical trial in my office right now on dementia. And that's one of the things that I really see impact people and prevent them from healing and getting the benefits, the potential benefits of this type of protocol or a very comprehensive Bredesen type protocol is if they do continue to drink alcohol and consuming alcohol really noticing what comes up for you if we suggest like hey, can you stop for six months? If there's resistance, then it's interesting. It's sort of an invitation to explore that relationship that you have with it. And if you are telling yourself oh, this is healthy. This is good for my brain and really attached to it, that there might be some something there to consider.

**Dr. Jill Crista, N.D.**

And it may not be you, it may be the fungal overgrowth. And I see that a lot in mold sick people that their body gets fungally burdened.



And now it's not actually you making your decisions on your behalf. It's you're now dysbiotic, dismycotic, gut saying hey, I think I'm craving some alcohol now, you know and then and it could be sweets. It could be carbs. It can be other things as well.

**Dr. Heather Sandison, N.D.**

Exactly. What do you use to treat funguses and candida or others?

**Dr. Jill Crista, N.D.**

Yeah, so my approach to this is probably different than a lot of people. This is based on my experience with my patients and then realizing after Dr. Josef Breuer published the study on intra-nasal colonization, I was already doing systemic antifungals, but I put it at the last stage of my steps. Some people when they walk in they're ready for them. But most people not, you know most people we need to do some prep work so that they don't get sicker when we start the antifungals. And again, we have plants, so I don't have to wait until somebody has a fungal infection. I treat them if they're colonized. So in Dr. Josef Breuer's study they found that if they if we tested everybody sinuses, everybody would have fungus in there. So it's not the mere presence of the fungus in the sinuses. It is that the ones people that are healthy compared to people who have chronic fatigue from a water damaged building, they don't make mycotoxins.

The people who've been in a water damaged building are now making mycotoxins. Those nasal washings are positive for mycotoxins even if they were out of the building. So there is a coin flip that happens. 50% of people in occupational studies can walk away from that exposure and not have any problems. The other 50%, you can get them out of the building and they still don't get better. And they still have symptoms even when they're out of the building. So there's something. And the key in those was that they didn't, their symptoms didn't appreciably get better when they got out of the building before they got completely out of the building. So these are like long-term studies over seven years, for different remediations, this kind of thing. So the people that didn't get better are people that got symptomatic and stayed symptomatic when they left the building. So that was the thing for me. I was like, this is colonization. And this is what Dr. Breuer is talking about is sinus colonization.



And as a naturopathic of course I'm like, well that's just the top of the tube. So I started, I was already using whole body antifungals that are plants primarily. Sometimes we have to use pharmaceuticals. And then when we added the intra-nasal, it was like boom, people got better so much faster and less suffering, less time off work, less everything, less money overall on the protocol that they were doing. And so it was just like, why am I not doing this at every patient? And so that just is now sort of my I just understand that if you're asymptomatic and you are out of your exposure, we get to treat your sinuses. So for sinuses I like things like essential oils. There are some pre done mixes out there, mostly out of Europe like for travel, like there's one called fest travel guard, and it's like tea tree oil in a sinus spray. They are a little stingy but they're therapeutic. This isn't meant to be like a sinus soother. For kids I like to use propolis because it's more gentle. It's anti-allergy. My kids say it smells like bee poop kids that come see me are like, or honey poop or something. I can't even remember all of them.

So that's a sinus treatment but I try to get the whole body stuff in place first because this can be a real site of colonization and they can get a lot of die off. So we first start with the gut, sounds very naturopathic. And we start with things that match the person. If we're looking at probable colonization but not too much gut disruption I might just use wholly basal tea, or if they have a viral overload like I write about my book, then all of leaf extract because it's doing both antiviral and antifungal, and then you get a little heavier handed with time, but that's a very safe plant. You can use time up to two times it's mold killing ability, and it's still safe to the person who's taking it. And they've done this in cell studies. And then you get a little farther down the line to things like oil oregano which my patients call the gut bomb. So if they're really gut disrupted and they're strong enough then we can use something like that. Green tea is an antifungal. We forget that, it's like it has all these properties that it's antitoxin, antifungal. It's an amazing plant. So those are some of the things.

**Dr. Heather Sandison, N.D.**

I appreciate I read about green tea. It's good for something else.

**Dr. Jill Crista, N.D.**

Right. Exactly.



**Dr. Heather Sandison, N.D.**

Cooking oil is another common one with antifungal properties that you can get them from our foods. Sinuses are so close to the brain. And we're here talking about dementia. Is there a direct connection between these sinus colonizations and dementia?

**Dr. Jill Crista, N.D.**

In my experience there are. And when you look at what's happening, the olfactory bulb is one of the few places in our brain, we only have four of them where there's no blood brain barrier. And when you're smelling something, when you have the sense of smell, that is an actual chemical interacting with the little hairs of the olfactory bulb that hang down into your sinus tissue, those chemicals not only interact but if they're fat soluble they can travel up into that olfactory bulb. And we see an other kind of toxicity studies like BPA. You can actually see that it rides the olfactory bulb all the way back. And like if you start to think about that like it's an escalator into our brain. And we do see the mold mycotoxins that do cross the blood-brain barrier. We see them accumulate in the frontal lobe. So you can see personality changes, Lewy body changes. And we see them accumulate in the brainstem. And so there are some like I had a patient who had melanoma from his moldy exposure. It was too toxic black mold. He was always ending up on the wrong side of this statistics. Like we didn't know he had mold until later he already had the diagnosis, but sure enough when he had a recurrence, it ended up in the frontal lobe and in the pons. And it was just like, that was almost predictable unfortunately. So getting on it, I think that the sinus treatment is really key because there's just that cribriform plate between the and that's a sinus bone basically between our brain and that olfactory bulb which is a direct route.

**Dr. Heather Sandison, N.D.**

So important to be addressing these things. I want to go back to the three mold treatments that you've seen be most helpful. You said bioflavonoids and research hall in particular fish oils and then melatonin. So with melatonin, you mentioned this as a primary brain antioxidant, so important for reducing that oxidative stress in the brain. I'm curious to how you use this exactly because some people talk about super physiologic doses at like 20 milligrams per night. Other people say no, you should never go that high. You should never use over 1/2 a milligram. Where do you land and how do you use this with your patients?



**Dr. Jill Crista, N.D.**

Yeah. So I think that when you're looking at the dosing you have to understand what force you're meeting. So if it's just like sleep you're just trying to help someone get to sleep. And it's because they have a really stressful job or they just had marital issues or something like that. I don't go beyond super physiologic doses because it is a master hormone. But when we're talking about the force of a mycotoxin and the amount of inflammation disruption that is doing to a body, we go up into those oncologic type doses of 20 milligrams ideally. Not everybody can tolerate that. They get really groggy. And so we start with just a little bit, I mean, that's the message with all things mold, start low, titrate up slowly, it's just start low and go slow. Some people get way sleepy with a milligram. So we start with liquid and we just kind of find out and then keep increasing, increasing, increasing, increasing till we can get to those doses that we see in oncology, where we know again with oncology the force that you're meeting here is very high.

**Dr. Heather Sandison, N.D.**

Great, great, great. So, so helpful. And these are just really wonderful things that people can do starting today to reduce their mold burden, their mycotoxin burden and their risk for dementia. If someone is concerned that they might be exposed to mold right now, what's the first step you would tell them to take?

**Dr. Jill Crista, N.D.**

I would say they can go to my website. There's my clinical questionnaire on there that can give you a score. And so it's a way to kind of see, not only does it give you a score but a lot of people are like, oh my gosh, I didn't know that was a molding. I didn't know that was a mold thing. They're going through the questionnaire saying, I have that and I didn't know that was connected to mold. So all of the symptoms on that questionnaire are connected to mold in an animal study or in my experience. And if you're a practitioner listening, I have the researched version of the questionnaire that you're very welcome to have and find out what research I use to create that symptom on the questionnaire. It gives you kind of a weighted score of like nope, probably not mold, possible mold or probable mold. And we're working to scientifically validate that against mycotoxin testing to see do those numbers really have meaning, I can tell you from my own practice they do. That's why I created it. I'm very analytical.





And I was treating Lyme patients and I'm like, which of these guys has Lyme, which of them? What am I supposed to be doing here? So I had Dr. Horowitz's MSIDS Lyme questionnaire. I thought, I'm gonna create my own mold ones so I can tell which of these guys has mold. So they're welcome to use that. You don't have to buy the book to get it, just go to the website it's on there. And then I would say do a building assessment, talk to your doctor to see if the questionnaire shows possible or probable, talk with your doctor hopefully they're mold literate. If they're not, I have a whole list of mold literate doctors on my website, and then see if there is a building, an ongoing exposure and definitely use experts for that. Yeah.

**Dr. Heather Sandison, N.D.**

And then would you ever suggest that who has symptoms help with the remediation?

**Dr. Jill Crista, N.D.**

No. That's an easy no. You're already reacting to it. And the masks, the P100, even the highest rated respirator filters do not filter out mycotoxins, they do not filter out mycotoxins

**Dr. Heather Sandison, N.D.**

The same experience but too many patients come in and say, you know, I saw the mold. And so I started ripping out the carpet or I started getting into the tri wall and then I got into my closet. I could need it to get those shoes and that suit and whatever was in there. And I just go no, don't do that.

**Dr. Jill Crista, N.D.**

I know.

**Dr. Heather Sandison, N.D.**

Someone else at this point your health is more important than all of the stuff, right. And leave it behind. Do you have some kind of hacks for that process? We were chatting right before we hit record that said, this is one of the most heartbreaking things that I see in my practice is that I see someone who's been exposed to mold who's suffering with mold toxicity possibly even has dementia because of it.



And they're so paralyzed because of the illness that it's hard to act. It's hard packed up out of the house, call the landlord or even go on vacation, even just try to get into a place where you feel better. If you have any quick hacks for people so that that's a little bit easier of a process.

**Dr. Jill Crista, N.D.**

Well, I would just say get out. I mean, that's the most important thing Dr. Crinnion, and again, the first three steps of any toxic exposure is number one avoidance, number two avoidance, number three avoidance, you know, you can kind of understand. And that coin flip again on the occupational studies is 1/2 the people that get out are better. That's all they had to do. So some people if they're wondering if it's mold there's a lot of like paralysis through fear, like oh God, look at me, such a big deal. And I know and so they wait and they wait and they wait. And as you're waiting, that mold is colonizing your body. And now you're gonna be the person who needs treatment. So I think the sooner, the better get your body out, avoid, avoid, avoid. And if there's any place that you can go, stay with a friend, sleep in your car although sometimes cars are moldy, something where you can just get out of that exposure because just getting out now when we're talking about with the dementia when you're sleeping, wherever you're sleeping and you're not in your moldy environment, you can oxygenate your brain which is what we are seeing is one of the number one factors for dementia creation.

**Dr. Heather Sandison, N.D.**

Yeah, I was thinking. Right. Exactly, that's exactly what I mentioned. Hopefully once you feel a little bit more clear headed you can go back and kind of make some of those harder decisions.

**Dr. Jill Crista, N.D.**

Some people don't feel good when they get out, they feel worse and it's your body detoxifying. So sometimes you do need to like get on the green tea and the turmeric and milk this on things that help your body detoxify. But for the most part people do their brain cleans up and they can start making those decisions and have agency again, 'cause that is one of molds mind tricks is that it says, 'cause I mean like a big 10,000 foot view, when I look at mold and Lyme compared, Lyme needs you alive to survive.



Mold would just assume compost you, which is creepy, you know? And that's kind of crazy to think about. So it wants you to just slow down, stay put, don't leave. Yeah. And so get out. And if you can move, some people are so sick they can't, go for a walk, even just little mini walks, keeping windows open. Or even if you have to run a heater or an air conditioner or something and the windows are open, minimize your exposure as much as possible until you get your plan. I'm putting together a class actually right now for my membership which is what to do if you can't leave. Like if they're at the very beginning and they're like, okay, molds at my work and I can't change jobs at this point, or I'm in a rental and I can't get out, there are certain nutrients you can take to protect yourself. And so I'm creating that soon. So if anyone wants to check out that resource they can by the time this publishes we should have that resource 'cause that's a, it's a big deal for people.

**Dr. Heather Sandison, N.D.**

So written and I'm so glad you're doing it. And the other part of me goes, oh my God, but don't tell people they can stay.

**Dr. Jill Crista, N.D.**

That's why I haven't created it yet.

**Dr. Heather Sandison, N.D.**

It's this balance, right? Of like you have to get out, that safe of killing you. And so many people really do feel financially, emotionally, logistically just trapped. And so I'm so grateful that you have some resources that you found that it can be supportive in that.

**Dr. Jill Crista, N.D.**

And from animal studies again, just taking translational medicine is really easy to do in natural medicine. And you've used these tools for so many years then you can say oh, in animals they use this. So now we can, I know the human dosing that that means, you know, but yeah, the big message is you're not gonna get better if you don't get out, you do have to get out.

**Dr. Heather Sandison, N.D.**

This animal piece is really important. And no, we haven't had an opportunity to sort of talk about this on the summit yet.



So I want people to know that there's a lot of interest in the human realm that don't exist in the animal realm. So in animal husbandry, getting mycotoxins out of sheep and cows and chickens and horses and any animal that's basically used to generate revenue. There is a multi-billion if not trillion dollar industry that just goes into reducing mycotoxin burden because mycotoxin burden in these animals reduces the amount of money you can make off of them. They reduces the honey, it reduces the fertility and also of course how much they're gonna sell for a market. So this is very well well-established again, billions of dollars go into this in animal husbandry around the world, yet in humans which are also animals write it down.

This is not as well established. And I believe that if this is because of the different influences, right a landlord has a very different interest than a tenant, a builder or a contractor has different interests than the person residing in that home. And so when you start to get these different kind of opposing interests, there's a lot more of a nuanced conversation around this is quite sad, it's really unfortunate because it means that people's health is at risk. And so this animal research because it's so well established there, there is a ton of research that tells us how we can best get these mycotoxins out of living things.

**Dr. Jill Crista, N.D.**

You bet.

**Dr. Heather Sandison, N.D.**

You are kind of speaking to this and seeing how we use that. We kind of co-op that research and apply it to humans. And unfortunately we don't have the same depth and breadth of research applying humans, but we're getting it. We're getting there, we're working on it.

**Dr. Jill Crista, N.D.**

Yeah. I hope so. I think it is purposeful. It's a lot of really well-paid attorneys trying to minimize how much research is going toward human because then people have to start paying for things.



**Dr. Heather Sandison, N.D.**

It's so refreshing in the current building materials included in that really dry wall. It's just the perfect food for toxic mold especially because it has a built in antifungals and which actually makes them produce more toxins.

**Dr. Jill Crista, N.D.**

Right. Super bugs. Yeah.

**Dr. Heather Sandison, N.D.**

Yeah, the other piece that comes up and I'd love for you to speak to this is the difference between two people, right? You have a husband and wife were in the same environment. They have very different presentation. Can you talk about that?

**Dr. Jill Crista, N.D.**

That is more the rule than the exception that everyone in that exposure has a different picture of what mold illness looks like for them, especially if they are being exposed to mold spores or spore fragments which is that classic like pull up the carpet kind of thing. Those are highly inflammatory, way more inflammatory than the spores themselves. 'Cause they're just like little antigenic DNA material that your body just cannot clear from our lungs 'cause they're like asbestos, they lock in there. So they just create this perpetual inflammation. So for some people that their mold picture is going to look kind of like the mold allergy thing, they're gonna kind of fit the classic picture with some added mycotoxin fatigue and anxiousness and that kind of thing.

But everybody in that space typically with a family, everyone is going to react at a different time. Some people earlier than others in a different way because they're fat-soluble, they can go to all these different systems and tissues in the body and it has to do with their genetic status, their previous exposure, which mold and mycotoxins they're exposed to if they've ever been exposed to that one before 'cause the body's really smart, that if it has been exposed to that before to the point that it affected your health, it's gonna react way sooner to that exposure. That's why some people they can't even eat in a restaurant. They walk in they're like, nope, gotta leave. It's not gonna make me feel good.



So it has to do with dose, duration, genetic susceptibility, nutritional status, things like your glutathione, your DHA, your good fats, and then previous exposure. So there's a lot of factors that goes into how someone is gonna react and how soon they react.

**Dr. Heather Sandison, N.D.**

And do you use it? See, I have certainly seen in my clinical practice that early childhood trauma also seems to make people a little bit more susceptible. So when the brain learns that you're not safe from it especially very early stage and then people who've experienced that and had that sort of foundational brain training tend to be a little bit more reactive. And this is where things like Dr. Sanjay Gupta and excuse me, his name is not Sanjay, but the Gupta program and the DNRs they seem to be particularly effective in sort of rewiring that limbic system so that we can have more positive really subconscious messages going to the cellular habits if you will.

**Dr. Jill Crista, N.D.**

Definitely, I mean kind of goes back to what we were talking about with the breathing. This is also a, it's almost like the neuro-transmitters or the brain cells are primed for trauma. And so when you get that toxin exposure, they are already pre-primed. So whenever you have a systemic inflammation which could have been a cold, could be mold and mycotoxin exposure. Now you're going to have an exaggerated inflammation in the brain tissue that has to do with your immune system. So now you're going to have more inflammation in the brain than you would have as a normal person, someone that didn't have those adverse childhood events.

I see this very, very commonly. We do a lot of microcurrent and craniosacral in my practice and we have a craniosacral therapist and it's just it's incredible and it's I think fundamental to the whole picture of just looking at when you have that early exposure, there are belief systems that get into place that affect your decision making as an adult that you don't even know they're blind beliefs. And that puts people into moldy environments more commonly than people who haven't had that which is a really interesting thing of you had to kind of like get over or gloss over what was happening to you as in a child. And that sets in this pattern and this belief system.



So when you go into a moldy building, even though your brain is saying, I'm not safe, they're so skilled at overriding that that they end up being the ones that sign the lease, where someone else who didn't have that event might go in there and go, there's some wrong with this place. I'm gonna trust myself with that. And they walk out. Somebody who has a well-ingrained gloss over those sensations, you don't have to make everyone else uncomfortable by saying no, you know all of those things, they have really, really worked hard on and have been ingrained as a child.

**Dr. Heather Sandison, N.D.**

So important. And it's validating to hear that you see that as well clinically because every time I now ask it routinely did you because it does seem to really make a difference. And also in how quickly people recover. I think really my confidence in them getting fully better goes up when they include some sort of limbic retraining, some sort of either therapy or meditation, something of course craniosacral--

**Dr. Jill Crista, N.D.**

Homeopathy, yeah means--

**Dr. Heather Sandison, N.D.**

Lots of tools. Not definitely to get there but whenever something is included that addresses that or outcomes seem to be much, much better.

**Dr. Jill Crista, N.D.**

And it could be a recent grief or trauma or something like that. Like that was the case in my personal one I had just experienced this super grief. And that was like, and not to get too esoteric. But if you think about what mold does its purpose on the planet is to take previously living useful material. We could also call it information and metabolize that into little chunks of useful nutrients or information. So when you have had something that is no longer serving you and you're ready to make a shift, but there is like like an old pattern that you didn't oh, I wanna make this, you know your intuition is like, I gotta make this shift, but then I've got all these habits and routines, then mold says, I'll come in and help. So you can actually invite it as well. And the way to be to conquer mold to get on the other side of that is to address that stuff. Just go ahead and be brave, take those steps, do that change even if it's something that doesn't feel comfortable.



**Dr. Heather Sandison, N.D.**

I absolutely love that reframe. I'm gonna steal it from you--

**Dr. Jill Crista, N.D.**

It's not stealing. I'm giving it willingly.

**Dr. Heather Sandison, N.D.**

Thank you, thank you for that gift. What is mold asking you to decompose? What is it asking you to like process?

**Dr. Jill Crista, N.D.**

What's no longer useful for you. And we all grow and change. We all molt, but we molt energetically but we were like, it's a scary thing. You don't wanna let that go. 'Cause that's something that has served you but if it's not serving you anymore, if you're not ready to peel it off, mold will help.

**Dr. Heather Sandison, N.D.**

Mold will molt you in that direction. So actually this has been so helpful, so informative and just really inspiring. Thank you so much for sharing your wisdom around molds, around dementia and some of your clinical experience that I know will help so many of our attendees listening and watching this summit.

**Dr. Jill Crista, N.D.**

Happy to help. Thank you so much for inviting me to be part of it.

**Dr. Heather Sandison, N.D.**

Of course, so I wanna make sure everyone knows exactly how to find out more about "Break the Mold" is I know I bought mine on Amazon, so I know you can get it there. And your website again is?

**Dr. Jill Crista, N.D.**

Yeah. Dr. Crista.com. That's D-R-C-R-I-S-T-A .com. You can also get the book and like Barnes and Noble, you know, the big box stores. If you're not an Amazon fan, you can get in an Ingram which is a more indie book or from my website. And I do have a membership.





So if you're looking for a mold literate doctor, you can't find one in your area and you want some support. I'm not taking new patients anymore. So it was my way of creating like a group learning situation. And we just, it's a beautiful group of supportive people who are all going through what you are going through. They get it. You're not crazy. And they're incredibly gifted with all the resources and things that they're bringing. So that's an area to consider.

**Dr. Heather Sandison, N.D.**

So valuable, thank you for making that available. And that we will be on the lookout for the new super valuable courses that you're doing as well. And for July 24th, I would be learning from you. I will be at that webinar. So very grateful for this wisdom and information that you put out there.

**Dr. Jill Crista, N.D.**

Thank you.

**Dr. Heather Sandison, N.D.**

What a great interview with Dr. Jill Crista. She's phenomenal. I'm sure you will agree after you listen to this, she's gonna tell you the hidden exposure to mold that every single dementia patient needs to know right now, she has examples from her clinical practice about things that are essential to reversing dementia and some of those hidden things that you might not even think about, but that affect lots and lots of dementia patients, especially if you have a CPAP machine.

The definition of detox insanity, why some of these things perpetuate over and over and over and over and what you can do to break that vicious cycle. Dr. Jill Crista gives you so many great tips about pre-binders, how to start low, go slow, make sure you're making progress and getting to the finish line so you can get your brain back and your life back. Listen to this episode for lots of great tips. Also, Dr. Kelly Halderman's interview, Dr. Crista and Dr. Neil Nathan's interviews all go really well together because we do deep dives into detox. So if you think molds is an issue for you, make sure that you stay tuned, listen to this entire episode and make sure you get those others. All right. Enjoy.