



Dr. Jill

Your Functional Medicine Expert®
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[#95: Dr. Jill interviews Brian Karr of Mold Finders: How to Detect Hidden Mold in Your Environment](#)

Dr. Jill 00:12

Good afternoon, everyone! Welcome to another episode of Dr. Jill Live. As you know, I have over the years—by accident—become a mold expert. In a lot of my shows, I get to talk to experts in the field, and today is no different. I will introduce Brian Karr formally to you in just a moment. We were just discussing: How long ago did we meet and where was it? It was probably four or five years ago, at one of the conferences. I always had respect for these guys at Mold Finders because, number one, they really wanted to understand the patient experience as well. I would say 95% of people in this field of mold remediation don't know much about the mold effect on the human body and the suffering that my patients go through.

Dr. Jill 00:58

As you well know, Brian—we'll talk about this today—many people who are suffering from mold are the canaries. There might be three people in the home who are like, "I'm fine," and there's one person who's incredibly sick. This toxin and the toxins that produce mold in general affect people very differently. It helps us as clinicians and patients to have people like you who are in the field helping us find the problems and who understand how much this can affect human health and sometimes the level of cleaning we need and that kind of remediation done. Let me introduce you and then we'll dive into the conversation.

Dr. Jill 01:35

Just [some] background: If you guys want to find other episodes, you can find me at JillCarnahan.com. You can find products at DrJillHealth.com. And you can find all of my episodes—I think we're on number 90-something—at my YouTube channel under my name. You can also find this anywhere that podcasts are played, like iTunes. If you want to look at some other episodes, they're all there.

Dr. Jill 01:59

Brian Karr, my guest today, is a second-generation indoor air environmental consultant who specializes in working with hypersensitive individuals with complex medical conditions. So many of you listening are grateful for people like him that we have to help us. He helps them understand if mold, mycotoxins, or other indoor pathogens exist in their homes and may be contributing to their health conditions, and then how to remedy these issues.

Dr. Jill 02:26

Brian, I'm going to stop there for a second and say, I can do what I do all day long, but the big factor is having people like you who are helping the patients find the problem. As I've said so many times before, until the patients get out of that exposure or a remediator fixes the problem, I can give all the supplements, IVs, and things in the world, but it won't change unless their environment is clean enough for them to get well. So we are so grateful for people like you! Brian has been a go-to mold and biotoxin resource. If you aren't following him on Instagram, @MoldFinders, he is a great resource. I love the content you're putting out. I'm such a fan.

Brian Karr 03:01

Thank you!

Dr. Jill 03:05

We need each other. I'm so grateful to have people out there like you giving accurate and good information about mold and how it affects health, and as we're going to talk about today, the hidden sources of mold in your home or the hidden problem that you might not even know about. Many people are completely oblivious until their health goes downhill and they're like, "What's going on?" Brian's become a go-to resource for many medical practitioners like myself across the country. He's helped over 3,000 hypersensitive individuals nationwide to create healthier living environments.

So, Brian, how did you get into this? And tell us a little bit about your story.

Brian Karr 03:43

Ah, it's funny. I'll tell you, I didn't go to school to go look around for mold in people's houses. It's definitely not something I did. But my story—I'll keep it somewhat short

because it can extend out—I had my own issue, like a lot of people who get into this area. I was sitting in my room. I'd just been laid off from an advertising job in the 2008 financial crisis that happened. I was looking for a job on my computer, and I feel something on my arm. I feel this thing. I look up to the ceiling and my ceiling was dripping on me. I could see the stain. The stain was building. I was like: "Holy crap! This thing is going to fall on me right now." And it kind of did. I grabbed my computer, dove out of my bed and the ceiling collapsed, essentially. Water was coming through the ceiling. It was an apartment. There was a pipe leak up there.

Brian Karr 04:40

Fast forward, I call the landlord freaking out: "Something's going on! You've got to get this fixed." What do they do? They sent somebody over to fix the pipe leak and that's pretty much all that they did. They were like: "Okay, everything's cool. We dried everything out. You're fine"—whatever. And this is for a lot of people: You put trust in these people. It's like: "They manage buildings. They must know. They said it's fine; it must be fine." I was no different. This is one thing I was going to say to folks: I may talk a lot and ramble on and whatever but at one point in time, I was just like you; I wasn't any different. You could learn this stuff.

Brian Karr 05:20

The first hit for me was a cognitive hit. I started realizing that I wasn't able to remember things as easily. I was a little slower. I wasn't as sharp as I normally was. Then the kicker for me was that I woke up one day and started seeing red patches on my face. I was getting eczema or psoriasis-type things going on. That was the big kicker for me.

Brian Karr 05:44

The thing that got me into this is that [the person] who's my wife now—I was dating her at the time—her dad, who is now my father-in-law, is one of the top guys that does this in the country. She was like: "You should call my dad. These things sound similar to people that he works with" or whatever. Honestly, I was super hesitant. I just started dating her. I was like, "I don't want this to be the way I meet your dad" or whatever. Eventually, I ended up caving. I had him come.

Brian Karr 06:11

It's interesting because the landlord sent somebody because I was complaining beforehand. They sent some local mold inspector guy to come in. You could guess what he did. He came in, took an air sample in my room, took one over here, and was out within 20 to 30 minutes. My father-in-law, Mark Levy, spent two hours in an 800-square-foot apartment. He found eight different things that were going on—some not even in my room, some in other places. Essentially, he helped me get out of that situation—how to get out of the lease and all this stuff. At that point, I still didn't have a job yet. Immediately, right after this whole thing, I was like, "I need to do this." Like, "I want to work for you right now." Like, "I'll work for you. Let's do this." He bit. And there you go. That's how it happened.

Dr. Jill 06:58

I love it! You probably know my story. I was in an office that had been flooded during the 2013 floods. It already had issues. You could laugh at some of these things. My office was on the second story, right above a crawl space that had standing water. And then the floods happened. Two levels down, in the basement, [there was] standing water. There were *Stachybotrys* and [inaudible] all over the place, plus the crawl space. My office had been remodeled. My contractor, I don't know what he was thinking, came in and said: "Let's take this old 20-year-old carpet and throw bamboo on top of it." So they just threw bamboo flooring right on top of this old, nasty carpet that was right over a crawl space that was not okay at all. Every time I walked, soft bamboo would puff [up] that gross carpet. That carpet was probably loaded with mold. I look back now and I'm like, "If I had only known."

Dr. Jill 07:48

I got really sick, like you—the cognition, the skin stuff. And I started noticing issues. I finally went down to the basement and got a box sample. There clearly was *Stachybotrys* everywhere. Also, my urine was loaded with trichothecenes, which are from *Stachybotrys*. That was all the evidence I needed. I moved out and never went back. So I totally get it.

Dr. Jill 08:06

But I didn't know a thing. And the same thing; I went to the landlord and said: "This is an issue. I'm getting sick." They wouldn't do anything, so I had to leave. I had to leave and break my lease. We made it right. But my health was more important than the money.

Brian Karr 08:19

Can I just say one thing about breaking leases? A lot of times, people will be like: "I'm stuck. I'm in a lease. I can't get out." Listen, contracts are meant to be broken. They are—they just are. There are loopholes. There are things you can do and ways you can do it. They'll try to make you think that you can't get out of it. All it took for me was a threatening letter from an attorney that said I was going to sue them. All of a sudden, the contract didn't mean anything. All of a sudden, they let me go because they didn't want to deal with it. There are ways to get around this. Don't feel like you're so trapped by this contract that you can't get out of it.

Dr. Jill 08:50

Brian, I love that you're saying that because I get contacted a lot to be an expert witness in legal cases and different things. That's not my area. It's too stressful. I'd rather help the patient and let someone who's an expert... I don't know if you know Enneagram, but eights on the Enneagram are good at that. I am not.

Dr. Jill 09:09

But back to helping patients, there are ways. I have had patients for whom I've written a note: "We have these labs. We have this health condition. I don't think this is a good environment." Even though I'm not an attorney, that has carried enough weight to often get them out of the lease as well.

Dr. Jill 09:24

If you're listening out there and you're stuck, these things are so tricky because they usually involve your home or workplace. Usually, whether it's remediation, moving, or breaking a lease, there are financial consequences. It can be hard. Not to say that it's easy, but don't feel threatened or trapped because your health is the most valuable asset that you have. So I love that you said that, Brian.

Brian Karr 09:45

Yes. And think of it this way: It's a financial thing for you. It's also one for them. It's not just one side of the fence. Think of it from their point of view: "Okay, I've got someone in here who's probably going to raise a stink. I might not have to get my attorney involved and pay attorney fees. Oh, what if I have to remediate this one wall over here?—because [inaudible] this one wall." I went through this whole course on how to invest in real estate and how they do the math and all the

formulations and stuff. If you're in an apartment building, let's say, they calculate based on how many doors are in the building. They're trying to turn a profit of a few hundred bucks per door. If you come in and you're like, "This is going to cost \$2,000 to fix this," you've killed their profit margin across five doors for a year. They don't want you in there. They'd rather get you out and move somebody in there. So for them, it's beneficial too.

Dr. Jill 10:33

Yes, I totally agree. Having a conversation human-to-human—they don't always listen—you can start with: "Hey, here's the situation. I need your help." Surprisingly, a lot of times you can get a lot of traction that way.

Dr. Jill 10:50

The story back in the beginning and my story are probably why we're two of the most passionate people on Instagram writing about this—because it really does matter. We saw the detriment to our own health. I'm assuming you got your health back once you got out of there and everything. And I did too for the most part.

Brian Karr 11:07

Yes. I'm still dealing with it because I was then going into everyone's house who had a big problem for years and years and years after that. I was tricking my body. Part-time, I lived in a really moldy place. I have gut things that I'm still trying to figure out at the end [inaudible].

Dr. Jill 11:24

We'll have to talk after the call.

Brian Karr 11:25

I like it. I like it.

Dr. Jill 11:27

I think the biggest thing you brought to our title and the topic today is that a lot of my listeners have mold, know about mold, or whatever. But if you're listening and you're like, "Whatever, this doesn't have anything to do with me," what are some hidden signs or things that these people might be noticing in either their health or their home that might indicate a mold problem that they wouldn't necessarily know about?

Brian Karr 11:51

Yes. I joke about this all the time, but it's so true. The secret to going in and finding mold in a house is to not look for mold in the house. If you do that, you're on the right path, because you can't see it. Very rarely is it able to be seen. The secret to doing this is to look for signs of water damage—not stuff that's wet right now, although that's a problem. But most times that we go into a place, the moisture readers are dry and the infrared cameras don't show anything. It's because the problem happened before and it's dried up at this point.

Brian Karr 12:23

The biggest misconception that people have is that "I need to have a water problem right now for there to be a mold problem." It's completely the opposite of that. Just think of it this way: Imagine you had this big, beautiful yard and then you stopped watering it. Does the grass just pick up, walk away, and go somewhere else? No. It dries out. It becomes brittle. It breaks apart if you play with the blades. And that's exactly what happens in mold colonies. So that's the concept. Imagine that happening in your house.

Brian Karr 12:51

The way that you figure out what's going on—the very first thing that you do—and the first conversation I have with every client when we talk is talking about the history of this house. Has there been any previous water issues? I'm not talking [about] floods. If there have been floods, sure, tell me about the floods. That's great. We need to know about that. Was there a drip under your sink one time randomly that you were like, "We just fixed the faucet and it stopped?" Were your kids splashing out of the bathtub for three weeks straight before you got them in line? Let's talk about that. Talk about these little things that happen that we normalize as being normal in a house because we were never taught as kids growing up that these things in a house are a problem. We were always taught, "You do this and you let it dry."

Brian Karr 13:34

The flip side of that is that when you got your first car, I'm sure your parents were like: "You better put oil in this car. Otherwise, there's a problem." My dad told me if I didn't put oil in my car, my car would explode. So you better believe that I put oil in

my car every 3,000 miles. My very first car was a \$5,000 car or something. People's homes are 100 times that, and we've never learned these little maintenance things that you need to keep an eye on in the house. It's no one's fault. It's just what it is.

Brian Karr 14:02

If you take nothing else away from this other than this one thing, there doesn't need to be water right now. And if you look anywhere and see some of the things that we'll talk about here in a minute—these signs that you talk about—there's a really high likelihood that there's a mold problem back there.

Dr. Jill 14:16

Yes. And I love that. I'm a clinician, but I'm also being a detective. I want to know if I need to refer them to someone like you, so I'm asking the same things. If I just said, "Is there mold in your house?" 99% would say no and they'd move on. So I never asked that question. I'm asking: "Has your washer ever leaked? Does the dishwasher leak? Does your floor buckle when you walk on it? Are there any signs in your cabinets and showers?" and all these things. "Is the grout cracking?" They're little things that do make a difference. And there are many more questions. Those are the signs that will often lead to something that is an issue. So go ahead and tell us about the hidden things, besides the obvious, like you said, not necessarily seeing mold.

Brian Karr 15:01

It breaks down to five things. We went through everything—all the inspections that we've done. We created a training program on how to find mold in your homes. While I was doing that, I was like: "We've got to figure this out." But it all stemmed from a previous client that I had. She was in LA. She was moving to Hawaii. She was like: "Brian, I want to fly you out to Hawaii. I don't trust anyone else to look through this house. I'll take care of everything. I'll give you a week here. I'll put you up. I need you to do this." Normally, who would say no to that? But my wife was pregnant. I was like, "I can't leave my pregnant wife here and go gallivant around Hawaii for a while." I was like: "Listen, I can't do that. Why don't you do this? Why don't you just tell me the rooms that are in your house? Just give a blueprint. 'It has this many bedrooms, this many rooms, this many...' Just tell me that, and I'll try to write something up for you."

Brian Karr 15:52

Basically, I was going to try to take what I do and put it on a piece of paper for her to go through. She does this for me. I write down these things to look for. Then I went through old inspections and found some pictures she could reference and stuff to do that. She goes through this house. I had done two other inspections for her. She's seen it. It's like this is new to her. She was in escrow. She went through the house and was like: "Oh, my God! This place is a disaster! How did I not know this?" She gets out of it. Then I don't talk to her for a little bit after that. She followed up with me a couple of months later. She was like: "Brian, we got out of that one house. And then we went looking for some more. I took the same thing you gave me, which wasn't even specific to the new houses, and I went through all the new houses. I weeded out three more houses. And we found the house that was a good fit for me."

Brian Karr 16:45

A light bulb went off. I was like: "Yes, every house has its quirks and stuff. Every house and every apartment are basically the same thing." It's walls, floors, ceilings, cabinets, bedrooms, laundry rooms, bathrooms, and kitchens. They all have the same stuff. And the process that we do to inspect all of it is ultimately the same. You're looking for the same stuff in the same places in every room. As I broke all that down, that's how we ultimately created the program.

Brian Karr 17:10

I realized that there are only five signs of hidden mold growth—these five signs of water damage. One of them is bubbling, whether it's paint or building materials. If you open your kitchen sink cabinet and look under it and it's bubbly, you see little bumps in there, that means that the cabinet has soaked in some moisture. If that's happened, then there's a likelihood that there's mold under the cabinet. That's an example. You can see bubbling in paint, cabinetry, wood, and things like that.

Brian Karr 17:42

While we're talking cabinets, [there are] even product bottles that leak. The main ingredient in product bottles is water with some little additive. I had a kitchen sink in a place I was in... My wife bought this cleaning product. I didn't even know what it was. I opened the sink. Something had exploded. I go back, pull it out, and there's mold everywhere. I look at the bottle. It's a mold-cleaning tile spray for your

shower. It exploded. There was mold all over my cabinet. They're all water-based. Don't look at a ring and say: "That's the product ring, there's no way that could be something." That's not necessarily true. So that's one.

Brian Karr 18:16

The second one is cracking and peeling. Think chipping and flaking paint. That's a good example of those that you might find. Sometimes you'll see cracks breaking out from different materials. That could also be a sign that water gets in. Peeling, chipping, cracking—that sort of thing. The next one is buckling or separating. Floors will buckle and bow if water gets in them. If you look at your baseboards—at the top where they meet the wall and the grout connects them to the wall—it's smooth. If one of them's bowing out a little bit and you can see a little gap in between where the wall and the baseboard are, it could have been a moisture issue that caused that. So those are little things you look for.

Dr. Jill 19:01

You're talking about something like hardwood floors or laminated flooring—the buckling or bowing too—right?

Brian Karr 19:07

Yes. You could just swipe your foot across the hard floor. If you feel it moving, then you know. That's an easy way to do it on floors. That would happen more around areas where there's plumbing stuff or maybe near exterior walls. Or maybe water's coming in. That's where those things would happen more often.

Brian Karr 19:24

Efflorescence, or mineral deposits, is another thing. You mostly see this in crawl spaces and basements. The white powdery stuff that you see on the foundation walls means that water came through there. It left a mineral deposit on the stone and it's there. That means water has come in at some point in time. It doesn't mean that it's happening right now, but it's been there.

Dr. Jill 19:43

It could also be on concrete in the basement or coming up through it. I've seen that through concrete. They have a special term in the flooring industry, but it's almost a calcium deposit—the minerals.

Brian Karr 19:54

Yes. It's called efflorescence. It's the fancy name for it. But it's just a mineral deposit. Yes, you'll see it on the ground too. On my front porch, when it rains, water gets over there. You go out there and there's all this white stuff all over the place. And then the last thing is the obvious one—staining. If something is stained, obviously something has stained it.

Brian Karr 20:13

That's it—those five things. If you went through your house and looked for these five things, you would be able to find so many problems that you wouldn't think about. And that's basically what we do. Not to simplify it too much, but that's what we do. [laughs]

Dr. Jill 20:26

I love the practicality of even [looking for] a leak under your sink. Who hasn't had that? What's the next step? First of all, this is one thing I really want to highlight because, right before the show, I knew that you guys were all over the US and able to go anywhere people needed you. But tell me just a little bit about your process, because it's very unique. I think it's the future of mold remediators. What I find is that someone will call me from Illinois or Florida and say, "Who do you know in this area, Jill?" The likelihood of me having someone that I trust in that area is very low. We always go to people like you. But tell us again about your process because it covers everywhere and it's very unique.

Brian Karr 21:06

Yes, what's interesting is that it all started because we were going to these conferences that we talked about four or five years ago. And honestly, before that too. But we started to get referrals from doctors all over the country. At the time, we had an LA branch and a New York branch and that was it. And there are so many people calling now. Now we're speaking at the conferences. All of a sudden, everybody comes in. So my business partner Corey and I looked at our family business, which is what this is, and said: "How can we expand this to figure out how to service more people?"

Brian Karr 21:40

The big challenge—which we totally felt and didn't want to miss, which is what you're saying—is that if you're not there, you're going to miss stuff. You have to be there in some way. You can't just have somebody walk around the house with Facebook Live and think you're going to see stuff.

Brian Karr 21:58

I don't know if I've ever told the story before. When we first started doing this, there's this cool technology that news crews use—news remote vans when they do TV shows. Basically, they have a pack that has different broadcasting things in it. There was one that we got that had six different cellular phone company signals that were built into it. That pack beamed out to a satellite and then the satellite beamed back to a home base, which would be the production studio, basically. That's how they did live remotes for news things.

Brian Karr 22:35

So Corey and I were like, "Why don't we just drop this backpack [off] to somebody and put a camera on their arm and do inspections like this?" That was how it started. We had a guy who went out who put a GoPro on his wrist and attached him to this broadcasting equipment, and we were going with him through the house. "No, look closer here." "Put the camera like this." "Do this." "Do that." That was the first iteration of how this all happened.

Brian Karr 22:59

Since then, we've developed apps and things around it to make it a lot easier. But we fly someone to wherever the location is. If it's in the middle of North Dakota, where you have to drive for three hours after an airport, that's where they go. They're there in person. And then you have somebody on the back end like myself or one of our senior consultants who is working with them to go through the process to make sure that we're not missing stuff.

Dr. Jill 23:21

Wow. This is, I think, the future because we do have this need for people who are knowledgeable, like you and your team with our patients. Most of the time, this is the missing piece of me helping people get well. I think, like your first experience and mine too, they do an air sample and are like, "Everything's fine."

Dr. Jill 23:40

Just to be clear and I'd love for you to talk about this, I'll just tell my opinion: An air sample is not bad. It's one piece of data. I think it's a part of a thorough investigation. But what we find is that the spores, especially the toxic hidden molds, are not in the air in very high quantities. Often, you miss that; it looks pretty good. What's your thought about the testing and the realm of what you would like to see to make sure, besides a good inspection?—because what you just said is the number one thing. It's the brain that's thinking about what's going on here and it's not just the sampling. I've had many patients. We had one inspector: "Everything's fine." Two, three, four—and on the fifth or sixth, they find a massive issue that everybody else missed.

Brian Karr 24:21

Yes. It's so common, too. [There are] a lot of stories of people we work with [who] don't necessarily find us right away. It comes through that same thing. The testing thing—you're 100% right. First off, you have to know where you're testing. You could use the best test that's ever been created in the wrong place and it'll tell you nothing. I kind of equate what we do with what you do. The home is a living system. There's not one test that you would run to tell you everything is happening in the body and the same thing is [true] for us with the house. Different tests have their strengths and weaknesses. Our goal is to understand the strengths and weaknesses. Where are the gaps in an air sample?—which I'll talk about in a second. How do we fill those gaps with other tests? Then, how do we tell a full, strong story and understand what's going on?

Brian Karr 25:07

I bash air samples a lot but then you have to caveat it. You have to get this across: An air sample in the middle of the room is a complete waste of time. It's just a complete waste of time. There are a lot of reasons for this. It's a snapshot in time. It doesn't account for everything you talked about. We have known this. For a year while we were on the field, I did this internal study just so I could reference something when I talked to people. If I thought there was mold in this wall—let's say there was one of the five signs we talked about in this wall—I would do a cavity test inside of this wall. This means two little holes in the wall. Test behind the wall and see what's at the source level. I would then stand right about here, which is about

three steps away, and do an air sample pump at breathing level to understand my air quality. Eighty percent of the time, when there was something here, this said nothing. That's the problem with air sampling. The problem is that it gets exponentially less affected the further away from the source you get.

Brian Karr 26:03

Now, the pro of air sampling is that if I'm at this wall and there's no mold growing on the front of it, how would I know that it's back there? There's no way to know that it's back there. The closer you get to the source, what an air sample does for you is that it allows you to get a better picture of what's going on when there's not something on the visible surface from a mold piece. If you could get as close to the source as you think, doing an air sample there—in an isolated space or in a wall cavity—is the best test that you can use for identifying the source when there's no surface growth somewhere. At the same time, it could be the best option of a test you can use or the absolute worst option of a test you can use, depending on where you're using it.

Dr. Jill 26:42

I love that because I agree. I think there is a place and time for good air samples. But you have to have a brain behind the thought process of where you're looking. Just like you said, [there are] five hidden sources. You have to have somebody who really knows what they're looking for, because that's the key. It's not just cameras, fancy gear, and air sampling. Just like with what I do too—it's that detective work that we do to figure out where the source is. So I really like that.

Dr. Jill 27:09

The other thing I want to mention—I mentioned this before, and you well know this—a lot of the things that make us sick are the VOCs, volatile organic chemicals or compounds. Those volatile organic compounds, which are the toxins produced by mold, number one, are usually causing more illness in the patients. Number two, that's not what we're testing in air samples or even cavities. Sometimes the mold is behind there, producing some really nasty toxins. And that's in the air. It's invisible. It's like a fume. And we're testing for spores, which are not readily available in the air. So that can be part of the difference too.

Brian Karr 27:57

Yes, 100%. It's so funny; we all know mold spores are such a small piece of the equation at the end of the day. The fragmentation that breaks off of the mold colonies is way more problematic than the actual spore that's coming off. They're so much smaller in size and in such a higher amount than spores. For example, you could have a fragment load that's 200, 300, or 500 times more [than] the load of spores that you find in a single space. Let's say you found five spores of *Stachybotrys* somewhere. I've seen some inspectors who are like: "Eh, that's not that bad. It's fine. It's no big deal." Five spores of *Stachybotrys* could mean mycotoxins are coming off that you're not identifying. It could mean that the fragment load that's moving out of that wall could be 500 times 5, so you're talking [about] a 2,500 fragment [load] off of it. There are so many other pieces of that.

Brian Karr 28:52

But the thing that you spurred with me when you said that is the concept of what a real inspection looks like and how you're looking for those things. The source is super important because it's where it's coming from. I use this analogy all the time: The mold is like a factory. If you're driving down the road and there's a factory off the side of the road, you can't see what they're making inside. There are walls around the factory. But smoke is coming out of the top of the factory. That's the byproduct of whatever's being made inside. Let's say you live in this house a half mile away and you walk outside, and you're breathing this air pollution because you're so close to it. Some people might say, "Oh, man, you have an air pollution problem where you live." Kind of, but not really; you have a factory problem where you live. If the factory goes away, the air pollution no longer gets created.

Brian Karr 29:37

The problem is the air pollution, the toxins, the fragments, the VOCs, and everything you're talking about. That's the exposure happening. But the source is where it's coming from. You have to know the source in order to stop that production from happening. But then we have to know: What is the composition of the dust and the fragmentation throughout the house that is getting resuspended in our breathing zone—which does account for mycotoxins and bacteria toxins and all these things—so that we can clean it the right way and understand how we have to address the whole thing? So there are two pieces to this equation: Source—factory creation—and then dispersion and cross-contamination that have moved through the house.

Brian Karr 30:18

Simply, the biggest mistake I see in both inspections and remediation is that they only focus on the first thing and they're not even good at it. They're like: "Well, the source is right here. Just rip this thing out and we're all good." Yet everything that's spread through the house, possibly in your air conditioning system and all these other things, is still there. You walk back into your house after you drop 10 or 15 grand on remediation and you're still sick. You think: "Remediation doesn't work. I've got to burn my house down. The Facebook groups were right." It's not true, though.

Dr. Jill 30:46

You're describing a case that I recently dealt with where there was [a level of] 36 Chaetomium. It was significant. He had someone come in and remediate. Gosh, I think the number went up to 56 after. It was just the cleaning afterward that was the issue. And I think there was an additional source they found too. Part of this, I think, is even giving remediation a bad name. One of the things a bunch of people had said was, "Oh, you're getting ripped off." That's not necessarily true, but good remediation is hard to find. Also, you pay more to get really good cleaning.

Dr. Jill 31:22

I've talked about this before too but I think it's so worth repeating. First of all, the old ERMI—I don't even use that term; I use qPCR. But one thing that I can do for patients before they get an inspection or during or with that is say, "Okay, do a qPCR." It's not going to be the end-all-be-all. For anyone listening, qPCR is a dust sample of the dust in your home that is tested for PCR (DNA) testing of the mold. You get a snapshot of what might have been in your home before or currently. It's not perfect; it doesn't tell you the source. You still need an inspector like Brian. But the key there I find is I can look at those, and if there's 20, 30, or 40 of Stachybotrys or Chaetomium, even if there's 5 like you said, I know there's an issue. And then I'll say: "Okay, now you need to get someone in there and find the source." What are your thoughts on that as maybe just a screening tool? Again, it's not perfect. But do you have any thoughts on qPCR?

Brian Karr 32:16

I agree with you 100%. It has its strengths and weaknesses, just like anything else.

We talked about where air samples miss out. They don't understand fragment load. They don't get the full load of what's going on. It underreports a lot of times. ERMI, PCR, or whatever—it's the same thing—is going to show you that fragment load and dust reservoir. There are research papers out there about how to look at houses that say you have to be looking at the dust settlement in the house if you're truly evaluating what's going on in a house, because everything settles down into the dust, and that's how a re-exposure happens.

Brian Karr 32:55

If you ever watched Charlie Brown as a kid, there was Pig Pen, the dirty kid. He always had this cloud of dirt around him. That happens to us as we walk around our house everywhere—it's called the human cloud effect—except you can't see it. But you sit down on your stuff, you bump your tables, or whatever. All this gets popped up. That's your direct pathway to exposure and reexposure and reexposure. So, I agree with you.

Brian Karr 33:16

Even beyond what you said, I agree with you so much that it's a great screen test that we developed an interpretation around how to look at them. You're right, the ERMI score—and this is why you're calling it PCR—is crap. I think anyone who knows anything about it knows that. If you got a hold of the original ERMI study that was done by the EPA, which took me five years to get a hold of, by the way... I feel they're trying to hide it or something. I couldn't find it. Without getting into all the ifs and stuff about it, it says in there, the score has a plus or minus standard deviation of 3. That's there.

Brian Karr 33:54

Now you see, "You have to have a [level of] 2 in your house for it to be a healthy house." I don't agree with that. I know a lot of people don't. But you see that number everywhere because of where it came from. So everybody's honing in on "It needs to be a 2," "It needs to be 2." Guys, that 2 is no different than a 5. And it's no different than a -1. So that one score can be in a super great house or an awful, awful house, all on the same scoring system. It's crap; it doesn't mean anything.

Brian Karr 34:19

But the technology behind it [inaudible]. And in our reports, I wonder if we started doing this at the same time. We'll put ERMI but we put /MSQPCR in it because we're not 100% [inaudible].

Dr. Jill 34:33

I would call it ERMI—because if I go to most of the sites that patients are ordering them from, it still says ERMI—to tell the patients what to do. But then, when they would talk to the inspector or someone who knows what you and I know, they'd be like, "Oh, the ERMI's terrible!" It would question my advice for them to do that. So I started saying: "No, no, no..."—because I don't believe in the ERMI. But I do know how to look at those scores and tell them what they need to know based on some of those toxic molds. And I—obviously, you do too—weigh some of the more toxic molds heavier so I could get 5 or maybe even a 4, which doesn't even score points on if I'm scoring HERTSMIs. But I'm still like: "I'm not sure this is safe. We don't know yet, but we need to look deeper."

Brian Karr 35:17

Yes. And the interpretation is interesting. The score is all over the place. The way they do the math doesn't make sense. We would see these come in, and you would have a score that was really high, let's say. But then, when you looked at it, it didn't look that bad because of how the math worked. On the flip side, you'd have a score that looks low. The overall load in the house was just astronomical, but the score was really low. It was super confusing.

Brian Karr 35:42

So something that we wanted to do... We spent eight months on this last year. We went through every inspection we did for the last three years, because we do ERMIs at the site. But we're also doing source testing. This is your ERMI testing in the house. How many sources were in this house? Were there mycotoxins in this house? Were there bacterial issues? It's all tied back to this ERMI that we could compare to. We went through and looked at over 4,000 samples across those three years that we did. We figured out a way to interpret ERMI in a way that gives you some contextual relevance to what's going on in your house. The reason that people do ERMI, at the end of the day, is because they want to have an idea of: "Is my house an issue or is it not?" It's truly a screening test, right?

Dr. Jill 36:25

Exactly. That's exactly what I feel. And if I see a massive load of something that I find in their urine and I match it, I'm like: "Okay. This fits the data that I'm collecting. Go call someone to help you." So we never stopped there. The other thing I find [is that] if someone's buying a house or renting and they don't have a lot of options to go deep in our market nowadays, sometimes they can do an ERMI and get a little bit of data before they put down the deposit on a home.

Brian Karr 36:47

One hundred percent. Totally, totally! I've had people do that too. The problem is that not everyone has you or me to look at their stuff. So then they get these things, but they don't know what it is. We figured out an algorithm to go through. When you did it and sorted it by this new ranking system we created, all of a sudden, there were fewer mold sources in the house. Less, less, more, more, more, more, more, more—all the way down. It made sense for what we were finding in the house. We ended up calling it the ERMI Code because we felt we cracked the code of ERMI.

Dr. Jill 37:20

I love it!

Brian Karr 37:22

We put it at ermicode.com. It's a way to interpret your ERMI, so you still run your ERMI. It's 27 bucks. We made it really cheap for people to get into. You put all your ERMI information in. It immediately compares it to our entire analysis database, and it tells you where you fall. You can expect nine sources, on average, of mold growth in a house that looks like this. All of a sudden, that's information that's usable. I'm looking to get a new house. I run an ERMI as a screen, and this says: "Oh man, with ERMIs like this, I could expect nine areas that I need to remediate in this house. Maybe I don't want to do this one." Or if you're looking in your own house, you're trying to decide: "Do I invest in a full inspection? Is there even a problem?" Now you do it and you're like: "Oh, there's 12 sources on average in this house. And on average, mycotoxins were found 20% of the time in here. I think we need to dive this." That's the breakdown that we created out of all of the data from all the samples we did to try to put some real context to what these very confusing ERMI tests are.

Dr. Jill 38:29

Oh, I love that! I did not even know. That's tremendous! So ermicode.com.

Brian Karr 38:34

Yes. It's super easy. Just enter directly in the order everything that's entered on your ERMI. It'll pop it out and it will immediately tell you where you fall and what your expectation looks like.

Dr. Jill 38:42

Oh, well done! This is fantastic. Great information. I love it because it's super practical. And I see patients; I can interpret theirs. But there are probably hundreds and even thousands more who aren't able to see me and they have questions. So this is a great, great resource for them. What else have we not covered that you see as common questions and problems? We've covered a lot already. Any other little tips, tricks, or things?

Brian Karr 39:13

We talked about the signs of stuff. Just do this right when you get off: Go through your house. Open up every sink cabinet that you have. Pull everything out of your sink cabinets and look to see if you see any of these things that we talked about. Is there any bubbling in the bottom? Is there discoloration? Is it warped? Is it cracking? Odds are, there are at least [inaudible] in your house that look like this. Finding something in your house, and this is kind of the first thing, is so common. But just because it's so common doesn't mean it's okay. It just means it happens a lot. So we just need to be hyperaware of that stuff and not diminish it. But that's a super easy thing.

Brian Karr 40:03

I think the thing to keep in mind is: Understand that these problems come from water issues, but the water issues don't have to be big water issues. They don't have to be floods like we think about. If we reframe how we're looking at these water events in the house, we can be a little more aware of where issues might be and even that issues might be getting created, and we can start being a little more proactive in how we handle ourselves and how we decide how to move forward.

Brian Karr 40:31

The easy thing is if you go through and see a couple of things or if your doctor's telling you... I always say this too: If your doctor's telling you that you're being exposed to mold and they're seeing it in a clinical test, believe them. Their tests are showing what they're showing for a reason. So [inaudible] to understand that component of it and not push back on that. And then you could always do an ERMI, as you said, as a screen. You can process the ERMI Code if you want to and get a sense of what it means. And ease yourself into what this process looks like so that you feel really comfortable with where you're going and have some validation behind it.

Dr. Jill 41:11

Yes. And I want to repeat. You cut out for just a second. You said: "If your doctor says there may be mold, listen to them." I love that!

Brian Karr 41:18

I'll say that again so everybody can hear me: If your doctor's telling you that you have a mold problem, you have a mold problem. They're running these tests. They're seeing it in your body. They're not making it up. We just think: "Oh, my house is clean. There's no mold anywhere." Listen, if they're seeing it, it's probably there. And instead of pushing back, I think you should maybe put some faith in the people you chose to help you.

Dr. Jill 41:42

And I want to frame that on the other side. Brian and I work in the world of ISEAI, EHS, and some of these organizations that train doctors, remediators, and inspectors to really understand the illness. I'm part of that teaching, and so is Brian. But there are a lot of doctors out there who... I think some of you in the chat even today were saying, "My doctor doesn't even believe that mold can cause illness." So on the other side, if you believe that you are sick from your home and suspect mold might be an issue, find someone—find a doctor, find an inspector like Brian—to help you because this is treatable. It's complex but it's very treatable. The worst thing is for you to be suffering and ill and think that there's an issue and not have someone to help you.

Brian Karr 42:24

Yes, 100%. We obviously don't have time to get into it, but the emotional and psychological effect of all this stuff is hard. It's really, really hard. I think the point of

all this is that while it's hard, it's doable. It's not like this death sentence that you're dealing with. It's very doable.

Dr. Jill 42:43

Yes. And you and I are living proof because we've both been through it on the other side. Awesome, awesome information. I think we're going to have to do part two because there's more to talk about. First of all, ERMI Code, if you want to check the ERMI. But where can people find you? Where can they consult with you? Tell us where to find you.

Brian Karr 43:03

Our company is We Inspect. That's my company's name. Our website is YesWeInspect.com. For your interest in inspections or anything like that, we have a form to fill out. Give us some information about your situation and we can start the process there. The other good spot is probably Instagram. I put out a lot of stuff there. It's very easily accessible. I also have a special phone that I have specifically for people to text me on. That's a whole other story. I can talk about it another day. But you could get that number from Instagram. You could text into the phone. I do my best. I carve out 15–20 minutes a day to try to answer people on a text line. You try to do what you can, but we'll get there. I think the big takeaway is that the ERMI Code piece is really important for people. And then, obviously, if you want to talk with us more, we're around.

Dr. Jill 43:53

You are. And like I said, you're putting out great content! So kudos to you. It's so needed. I so appreciate you and I appreciate your time today! And like I said, we'll have to schedule a part two.

Brian Karr 44:04

I love it. Thank you so much!