



## Part 2: How To Not Lose Money And Time On An Incomplete Mold Inspection

Beth O' Hara, FN With  
**Jeff Bookout**



### Beth O' Hara, FN

But what I've put together and from talking to you and working with Neil Nathan, on that mold plate, if we see one or more count of Mucor, if we see two or more counts of Aspergillus, Fusarium, Penicillin or Alternaria, or one plus one of any of those, like one Fusarium, one Penicillium, or one Penicillin, one Alternaria, or if we see high levels of bacteria, then I want them to reach out to somebody like you to look more deeply at what might be going on.

### Jeff Bookout

I agree 100%. Kind of the gold standard, do air sampling, Do SDA agar plates, do sports trap analysis, do an ERMI, have a mold inspector come in and do all this, right? That's gold standard. Jeff, that's \$6,000. I can't afford that. Okay, let's go to SDA agar plates. You don't only have to send them in. \$3 a plate, what areas showing the most mold in the house visually? And let's try to help walk you through there. So there's a gold standard. I wish everybody did every one of these things that's up on the screen right now.

### Beth O' Hara, FN

And that would be the best thing.

### Jeff Bookout

Yep. Problem is, how many people in your field are gonna pay six to \$10,000 or actually six to \$12,000 to have that done?



**Beth O' Hara, FN**

Some people can, but some people can't. And they still need to move forward and have help.

**Jeff Bookout**

Right. And to me at the end of the day, it's all about finding those elephants, those problems inside your house and fixing, either fix 'em or flee from 'em.

**Beth O' Hara, FN**

And that's what I love about your approach, is that if somebody has the budget for it, let's do all of it, and let's get in there. But if they don't have the budget, that you can still help them find a way through.

**Jeff Bookout**

Exactly right, exactly right.

**Beth O' Hara, FN**

Thank you. Thank you so much for that. So I know you've got some other pictures you're gonna show us here.

**Jeff Bookout**

You bet. So let's quickly go through the inspection phase of what I look at in inspection. Some things are obvious, right? That's even more growth going all over the back of that teddy bear, that's not rocket science. This is a personal story for me. The kid, he's five. He had a pacifier in his mouth and he's in a diaper at five. His eyes are all glassed over. I got called in 'cause he was going into seizures. He thinks I'm taking a picture of his race car bed. I'm not, I'm taking a picture of the mold growth where he sleeps right behind his head every night. That's obvious. But in my world things are generally hidden.

Here's a sleep number bed that had mold growth all inside the bed and this is where they sleep every night. And that was as aspergillus penicillin group that was showing up at high levels in that bed when we tested that. This is an atrium inside of a house. In the bottom of that atrium is a lead liner. It had about, I don't know, two, three inches of standing water in it. I actually had to put on a mask when I got close enough to that to document what was in there. It was just nasty. And the sweet girl that was actually on the couch, and I can't zoom this in, I have a picture of her



from a couple months ago, she's doing so much better. But she was laying down on that couch waiting for the nurses to come give her an ice bath.

**Beth O' Hara, FN**

Oh, oh, gosh.

**Jeff Bookout**

Her pain was significant.

**Beth O' Hara, FN**

Can we talk about plants for just a second?

**Jeff Bookout**

Yes.

**Beth O' Hara, FN**

People are gonna ask, do I have to get rid of all my plants?

**Jeff Bookout**

Great question. In this case, this atrium is a elephant, not a red flag. In most cases, they are red flags. They're a contributor to your toxic globe but not the reason why you're sick. Does that make sense? Yeah. So this had flowers all in the bottom of it, soil in the bottom of it, standing water in it. Every type of mold that you can probably imagine was growing into that thing. That is a huge elephant.

**Beth O' Hara, FN**

Now what about just regular house plants? If somebody has it in a pot and it dries out in between?

**Jeff Bookout**

Yeah, so my job is to protect you, right? So now most plants go into what I call the red flag category. They're contributor to your toxic load no matter what. They're gonna have cotus form and microform into the soil. Then you got creative, you put wood sticks to hold up your IVs, or you put those plants in a wicker basket. Well, once that gets wet and doesn't dry out, there's your



aspergillus penicillin group and starting to show up. Those are toxic molds. I had a lady who said, "Jeff, you know I only have this one plant" And I look at it, it's a wicker basket, and I pulled it up and the whole bottom side of it is completely black. Yeah, this is your office where you sit eight hours a day. That's a major contributor when you get that much mold. But most of the time if you will limit your plants and you don't have 'em in your master bedroom, your eight hour day sanctuary, I'm gonna tell you about it 'cause it's a red flag. But is that why you're sick? The answer is no. NASA uses plants to take up in this space shuttle to move toxins outta the air. Great for a lot of people, I suggest no live plants. But it's not a must that somebody gets rid of them.

**Beth O' Hara, FN**

So I think about, if somebody's really attached to the plants, then the succulents that need to dry out really well might be a better bet. And to keep them... Sorry, go ahead, Jeff.

**Jeff Bookout**

Yeah, I put a list of succulents in my reports. Hey, if you're gonna have plants, here's the plants to use. Don't use wicker baskets, use clay pots. Change out your soil yearly. Maybe and put some little small rocks over the top of the soil. So there's things that you can do to help minimize that. But make sure your...

**Beth O' Hara, FN**

Drains. Make sure it drains well.

**Jeff Bookout**

Yep, you're exactly right. Or I see a lot of people they'll put 'em on those plants on wood floor that overwater to the floor. Now there's mold all into that wood floor or the carpeting underneath it.

**Beth O' Hara, FN**

Yeah. And we did end up getting rid of our plants because of my sensitivities to mold, but I do keep one alo. So I have one alo that I keep in a window, and I make sure it dries out and doesn't stay moist at all.

**Jeff Bookout**

Yeah, so in this house particular, I'm gonna win that battle no plants there, because it's basically an atrium of just a ton of different plants. In your normal house, if I win the battle of not keeping



in them in your master bedroom, that's the battle I wanna win. Other than that, I don't care if I win that battle.

**Beth O' Hara, FN**

Thank you, Jeff.

**Jeff Bookout**

You bet. So carpeting in a bathroom. I see this a lot, or carpeting in general. You pull back the carpet and that is solid black mold that's growing up underneath on that subflooring. And that was hidden. You couldn't see it with a naked eye. But you pull that back. And that's why carpeting, especially in a bathroom is a bad idea. I don't like carpeting overall. Mold spores build up over time, excess, and then we have pets inside the house, whatever the case, then you get all those mold spores, duster debris, allergens get trapped in that carpet. Carpet weighs. When you put brand new carpet in, when you take it out to change it out, on average that carpet you're taking out weighs eight times more than what you did when you put it in. You don't wanna breathe that.

**Beth O' Hara, FN**

That's gross.

**Jeff Bookout**

Some good data. Now imagine every time you walk across that carpet, you're putting a little cloud of junk up into the air every time you're disturbing it.

**Beth O' Hara, FN**

Ooh, let's talk about carpet a little bit more. People, but I also wanna know. One, when we did a Facebook Live, Jeff, which was just loaded with good information, and if people want more, they can go there. And we've got more mold remediation in our MC 360 Precision Mold Course. But when we did that Facebook Live, we talked about carpet cleaning, and not oversaturating the carpet, because that can be a way that mold, that that pad will go mold. Can you talk about that, and then how can people safely shampoo their carpets?



### Jeff Bookout

You bet. The key goes all back to drying that carpet out within 48 hours. Now generally, if a professional company's doing it, they have the equipment to suck out the excess and moisture content and have it dried out within that 48 hours naturally. Me, I have a Rug Doctor. I bought one from Sam's. And I use it on my carpets every six months to a year. When I do it, I don't saturate. I do quick, not quick, but semi-quick passes over the carpet so I'm not saturating my carpet. Then when I am done, I actually get down on my hands and knees with a towel and do a quick wipe over on the top of the carpet. And it always dries out within that 48 hour time period. The other thing that you could do is get a fan or to the ceiling fan, make sure and turn heat on in there. In my house I actually have a couple dehumidifiers 'cause I live in Oklahoma. And I'll put that one of the dehumidifiers in that living room to make sure that it dries out quicker. So the key is make sure that it's dried the touch, especially after that first 24 hours. If it's not, get some dehumidifiers, get some fans, let's get that thing dried out.

### Beth O' Hara, FN

And I know there's a method called dry shampooing, and that's what I've used 'cause they use a lot less liquid. And then we're gonna talk about a solution here at the end that people can use for the carpets as well. But what do you think about carpet in general with mold and mold issues?

### Jeff Bookout

So if it's not currently a problem, it's a problem waiting to happen. So as an investigator, when I come to a house, sometimes I visibly see these heavy stainings, and it's not a suggestion, I'm telling you to remove the carpet in there. But even in those areas where I don't see any visible damage, it's countless times you pull up that carpet and there's visible mold growth on the subfloor. Because oh yeah, that's where I spilled a gallon of water that one time, or there's where we had my daughter's dogs over and the urine got into that and caused mold.

So it's amazing what you can't see that is hidden either on the backside into that pad, the subfloor or actually deep into those fibers of carpeting material. So when you're using a dry shampoo or or Chem-Dry, something like that, generally it doesn't get deep enough and get into the pad or deep into the carpet to be able to pull out excessive stuff that's hidden deep into the carpet. That's why I like hot water extraction the best. We just have to make sure that it's dried out within that 48 hours.



**Beth O' Hara, FN**

Oh that's a great tip. And then we'll talk about this solution people can use as well if people are able to replace it. And I'm thinking about in our house, we have some carpet here, and I'm particularly concerned about the carpet in the finished basement. What are some of the best flooring types for people to avoid mold?

**Jeff Bookout**

So my first two are the best. Number one stamper staying concrete. You can take that concrete, and they're so sophisticated with that today. They can make that concrete look just like a wood floor. It's beautiful, some of the results that I've seen. So stamper staying concrete is number one. For the same reason why, number two is ceramic tile. So those first two, you get those wet, all you have to do is dry it back out. Is rare that you ever have to pull up a ceramic tile. It does happen, but it's extremely rare. And obviously if you stamp or stain your concrete, all you have to do is dry it out. You don't have any stain, water molds not gonna grow. Everything on that, you're gonna have to remove and replace if it gets wet. So my next, in Kinzie's room, you'll see her room where she had carpet before, but now it's had three wood floors. So those final plank wood floors, if they do get wet, they're gonna have to come up. But at least they don't trap excess of mold spores, dust starting debris. I just have to clean the surfaces of them. So anything other than carpet.

**Beth O' Hara, FN**

Okay, so, 'cause I know a lot of people are so sensitive to things like VOCs, and were saying about some of the less toxic options.

**Jeff Bookout**

Yes. So now it's researching any planks or wood floors that don't or give off little or no VOCs.

**Beth O' Hara, FN**

Okay, great. Those are wonderful tips. What's this image?

**Jeff Bookout**

So that's gonna be visible water damage on a ceiling. And a lot of people will look at that and say, Jeff, that's just water damage. Well, I'm looking at a ceiling and I'm looking at 10% of the problem. The other 90 percent's on that other side where it's water stood insulation that has 15





times its weight moisture content before it even felt wet, then mold begins to grow. Then finally it shows itself on the other side with water staining. So anytime you see water staining, that means that it's been there for more than 48 hours. That material needs to be removed.

**Beth O' Hara, FN**

And how far out? Like some people just cut out the stained part, but I know you talk about going further out than that.

**Jeff Bookout**

Good general roll of thumb is two feet past invisible mold or water damage. Mold high feet can extend up to about six inches, but you can't see with the naked eye. So I always tell people go two foot past invisible staining.

**Beth O' Hara, FN**

Thank you.

**Jeff Bookout**

Yeah. And here's another area that people don't realize. This is a fire hazard too, but you've got all this excess of moisture from a dryer dumping into your attic. There's actually visible mold growth on a lot, the wood decking as well. So in these cases it's okay, I'm gonna remove every bit of insulation that is into this attic. I'm gonna treat this wood with 12% hydrogen peroxide, then I'm gonna put a sealant over that wood. And that's one of those things, how often are you in your attic, Beth? It's one of those things that's hidden and you don't generally see. But you're attic air, and we'll talk about this in a minute.

Attic air behind your walls, crawlspace, those airs contain about 10 times higher mold contaminants than your breathable air without a water intrusion. Now you add a water intrusion, your ad visible mold growth that this attic has, now those airs in your attic is communicating with your breathable air, you're getting sick and you don't know why. Same way with the crawlspace. What people miss a lot of times is the soil contamination. You can see in this photo where you can visibly see the soil's wet. There's an HVAC system down there. That HVAC system is pulling 5% of the air directly around it. This nasty crawlspace air is getting dumped into the rest of the house.





**Beth O' Hara, FN**

And I found that a lot of people don't know what a crawlspace is. And this is actually a pretty tall one.

**Jeff Bookout**

Yeah, really tall.

**Beth O' Hara, FN**

Can you talk about what that is, and then how that actually gets into people's homes? 'Cause they also don't realize the air exchange that's happening there.

**Jeff Bookout**

Yeah, so in this particular case, let's say this is the nicest HVAC system in the world that's sitting back in there. That means that it's about 95% contained. That means 5% of the air directly around it, every time it comes on gets sucked into that unit and now goes through the HVAC system. But even without an HVAC system down there, or an HVAC system in your house, there's dark effect, there's pipes, holes, you see all these pipes, there are water lines going up underneath the kitchen sink. Those aren't sealed around. And every time air goes up, imagine that green gas going up through those pipes, holes, nooks, crannies behind your wall cavities, now it's coming through the outlet. It is so easy for that crawlspace air to communicate with the air above it in so many ways. And most people have their HVAC systems in the main level of the house or the attic. So, but every time an HVAC system comes on, it creates a great amount of negative air pressure. It's a suction, a vacuum. It'll pull air from your attic, your crawlspace, air behind the walls, and now suck that into your breathable air. I don't want you to breathe that air.

**Beth O' Hara, FN**

And spores may not be getting through where the mycotoxins are so much smaller than the spores.

**Jeff Bookout**

Yep.



**Beth O' Hara, FN**

That this is where it may not show up on an ERMI or mold plate because those are spore testing. Is that right?

**Jeff Bookout**

You're exactly right.

**Beth O' Hara, FN**

So this is where we need to get somebody to go in and take a look in that crawlspace or put a mold plate in that crawlspace, a few mold plates in there, see what's going on.

**Jeff Bookout**

Yeah. Yeah, Jeff, the crawlspace is musty, but there's no visible mold. Okay. You know there's a problem. And if you have a crawlspace, more than likely you have a problem, period.

**Beth O' Hara, FN**

But they can be fixed. So there are lots of ways. Because we encapsulate that to seal it. So these things are fixable.

**Jeff Bookout**

All these things are fixable, exactly right. Now here's HVAC system that, you know, most people don't look inside their HVAC systems. The bottom right picture's actually mold growth that's actually on the air coils themselves. It's actually two different HVAC units. The one that's setting up on the left actually has water jumping out the bottom of it. There's just a big pull of water underneath that HVAC system and there's small growth on the wood all around it. So that one was pretty. But HVAC systems, yeah, especially in Texas, I got a call from a guy in Texas this morning, and his HVAC system was his problem. That usually in Texas, that's the first place that I look. Because you go up in the attic in this top left picture, that's mold growth just growing all over that. Outside of the unit, Beth, mold can't eat anything on that metal, but it's just growing on the outside.

**Beth O' Hara, FN**

Because of the humidity, right? The humidity's over so high. And if we've got, is it over 50%, then mold can grow just from that humidity in the air.



**Jeff Bookout**

Exactly right. And this other one, the one on the right, this mini split unit, and this is inside of the school, and you open up the mini split unit itself and there's mold growth just all over those spindle wills. How many people look there. I mean you can see the big water steam even on the top of that one top picture. So that multiple issues that were going on there, that HVAC systems are just a wonderful place for mold hide and people don't know it. So number one reason why people get sick from mold exposure in my experience is dirt floor crawlspaces. Number two is actually a swamp cooler. Same thing, you don't see this. But here's what a swamp cooler looks like. Generally a couple inches of standing water is always in the bottom of that. So mold bacteria are gonna start to grow into that standing water. Mold will actually go up the side of the filters that they put in the side of those, and then they dump that air inside the house. And the reason why it's called a swamp cooler is the word swamp, smells like a swamp because of all the mold in it.

**Beth O' Hara, FN**

And these are really popular out West and more in the South, is that right?

**Jeff Bookout**

Yeah. Even in Denver, I'm in Denver every other week working in a ton of swamp coolers in Denver.

**Beth O' Hara, FN**

Okay, okay. And these are also called evaporative coolers.

**Jeff Bookout**

Correct. So a little bit about some of the equipment when you're using it. This is a specific case that was in Oklahoma. VOC meter that it's an air sniper, right? It's looking for volatile organic compounds. That number really shouldn't be above one part per million. This number is at 1351. I've never seen it that high. I walked into the house and turned it on, and immediately it was at 60. And it's a sniper. Something get trapped in the end of that hose, so I was mad at my VOC meter. So I took it outside to clean it out and immediately it registered zero. It's not my meter that has the problem, it's the house. Right? A house was roughly 72% humidity. Then I finally get up into the attic, and pictures never describe how really bad it looks, but you can see a line down the middle of this wood, that is where the joys above are raining and coming down, and it's



raining in that attic. Just because there's no ventilation in it, the humidity was so high, and that's why the VOC meter was that high. Moisture meters. This is moisture meter and pinless mode. So I'm checking for moisture content behind a shower cavity. So I can't see that with the naked and eye, but it is maxing out my meter. So I know that there's gonna be excessive moisture behind those tiles, and there's gonna be a significant mold problem behind that master shower. Infrared cameras, everything has a heat signature pattern to it. This is a basement in Denver. You see the nice, red up top. Then on the green, then we have blue. When I pull all this stuff back and look at the bottom of that wall, all where that blue is, that's where water is actually standing because water's sitting up against the foundation. And that's things that you just can't see with the naked eye.

**Beth O' Hara, FN**

So that wasn't water inside the wall, that was water on the outside wall of the house.

**Jeff Bookout**

Well, water was standing up. Yep, drainage was allowing water to stand against the foundation. Now it's absorbing moisture into those cylinder block walls that's behind that sheetrock. Now that insulation is wet, now the bottom of that sheetrock was completely wet as well.

**Beth O' Hara, FN**

Now that scenario that gets missed a lot in these mold inspections.

**Jeff Bookout**

Oh yeah. And I always tell everybody, if you're hiring a mold inspector, I don't want a guy who just comes in and does air testing. Air testing is a tool and I love that tool, please use it. But I need at least infrared cameras and moisture meters to help them identify, and come in that house and find where these elephants are at. There's hygrometers that we use. It's 58% humidity in this one area that we're looking at. Here's a moisture meter in pin mode. There's a guy leaning down in the corner. And what he's doing is going up that wall two foot and cutting it out. Well, I don't know who told you to cut up two foot because you're moist all the way four and a half feet high. So I need to go two foot past that.



**Beth O' Hara, FN**

Okay. So you're finding that there's moisture in that wall that's damaged the dry wall all the way up that high.

**Jeff Bookout**

And when we took it out, there was small growth all over the backside of that sheetrock.

**Beth O' Hara, FN**

Jeff, all this is making so much sense because I've worked with so many people that they come in and they tell me, I've had comprehensive mold inspection. We did remediation, we got it all. And then they're still so sensitive, they're still so sick. We've worked together for six months, they're not getting anywhere. And with the methods that I use, with six months, people should be getting some improvements. And I'll often say to them, I think something was missed. And usually, because, you know, I've been through so much with it, they don't want to hear me. And I understand why, and it certainly makes sense. But if people haven't had this depth of an inspection, it's highly likely if they're still sensitive after doing six months of our methods, that there is still something there, and that's the missing piece. Because if you're still exposed to mold all the time, your limbic system can't calm down, the muscles can't calm down. And all the things that I'm trying to do can only take them so far. And these really sensitive people who come in, Jeff, and they can't take anything. They can't tolerate supplements. They're down to just a few foods. I've seen this time and time again. And then when they're finally ready to take a look at it, at this kind of depth that you're describing, we always find something.

**Jeff Bookout**

Yeah. And I address that three different ways. And most of the time when I started doing this, how long I've been doing this, 18 years, when I started doing this, my thought process when I go into this house, I'm looking for the elephant, right? There's the elephant in this house and need to find this elephant. I find an average of three elephants in every house I go into. So one, you probably missed an elephant. Number two, and I love analogy, so I'll use it, and misses outside of where I live, probably 20 miles from me. Did the mold inspection on the house. The doctor actually had them do picture dishes from old plates. And they weren't high, they were extremely high. Aspergillus penicillin in the thirties of each, in every room, right? So it was a significant problem. I go to do the inspection, I'm pretty good at what I do, there's nothing, I mean there's a water stain underneath a water softener system. And that was it. And we sit down at the table,



and my inspections for about 15 minutes, going over medical data, history of the house. Just talking, getting background information. No, I don't know of any past water problems, Jeff. Okay, well, when I talked to her on the phone, I imagined I was gonna meet her and she's gonna be 85, right? 'Cause I did envision of somebody when I talk to 'em on the phone. Jeff, I walk into the walls in my hair salon. I have nobles every morning for the last two years. I have to wear CPAP every night. The list goes on. I pull up to her house, there's a Corvette in the driveway. I like Corvette. So I'm like really? Who's visiting her, you know? So knock on the door and she's 35. Wow, this doesn't make sense, right? Go through the house, nothing's there. And I sat back down and said, "I went through your house, you are either hiding something from me or I'm flat out and missing something." And she ducks her head.

What are you lying about? Okay, Jeff, there was a leak in the attic from the HVAC system in between my living room wall and my kitchen wall. But they took that out last month. Who took it out? Jimmy down the street. Jimmy down the street took it out, not under proper containment. Threw all those mold spores in the air. She's sicker now than she was before they tore it out. All we had to do was treat the air, get those success on mold spores and mycotoxin back under control by treating the air. And she didn't have noose bleed the next morning, hadn't one since. She got off her CPAP within two weeks. Just immediate night and day change. All because we did the right steps.

**Beth O' Hara, FN**

No, that's a great example. And also a good example, sometimes there are a lot of steps, but sometimes it's a simpler solution.

**Jeff Bookout**

You're exactly right. So either we missed an elephant, we just didn't treat the air, or this house was so significantly impacted from a major intrusion that it's kinda like, I always... How do you know somebody smoked in your house, Beth, before you bought it?

**Beth O' Hara, FN**

You smell it.



### Jeff Bookout

You smell it. It gets into everything. But mycotoxins are like that too. Except a lot of you don't smell the mycotoxins. So it was this huge *Stachybotrys* issue that those mycotoxin's just deeply embedded into all these items, and there's just no way to recovering that house. It's rare that that can still happen. So usually it's one of those three things. And usually it's they missed an elephant.

### Beth O' Hara, FN

Yeah, yeah. Which is so common and understandable that a lot of people aren't gonna have this kind of level of detective experience and know what's gonna make people like us, all the canaries in the coal mine so sick. Or like your daughter. And I found that it's mold inspectors almost have to have had some personal experience with it to really understand how in depth they need to be looking.

### Jeff Bookout

Right. You need somebody good at their job, and they're not easy to find.

### Beth O' Hara, FN

This looks like a little Yorkie that's had a lot of messes on the floor.

### Jeff Bookout

Yeah, you're close. So that is not a dog, you're correct. That is not a dog, that is Yorkie. That is Sophie. So we all have issues. This is my own house. This is McKenzie's bedroom. Behind Kenzi's bedroom. So if you look at the picture on the right to the left of the Yorkie, all the way to the back of that wall, there's a tankless hot water heater in my garage. The picture on the left is the filter to that hot water tank, and it exploded. Flooded her room. Back then she had carpet, yanked the carpet out. So after that, probably two weeks later, I have this beautiful wood floor down there on her floor. Two weeks later, that same closet, the line that's behind the wall, if you look on this left picture, there is the red hot water heater line. At the corner, that's a 90 degree. And they used nickel as that 90 degree, then put two different metals as the clamps to hold it on. Water is the conduit because it's two different metals, it corroded out the other water line that is behind the wall and that line started leaking. Got underneath that brand new wood floor, had to replace it. Less than six months later, she had a leak in her shower, which is behind that picture, and water





got all up underneath that wood floor. So Kinzie has had three brand new floors. So it happens to us all. We all have issues. So it's a matter of finding...

### **Beth O' Hara, FN**

They keep popping up too. Our water filter, reverse osmosis water filter under the sink developed a leak. This was before I knew to put the plastic tray under all the sinks in case there's something leaked. Then it leaked down into the wood under the cabinet. And I knew to get that wood out right away, I knew not to let that sit. So we had to tear all that out, dry it out, and then put a new wood base down.

### **Jeff Bookout**

Yeah. So we're all gonna have problems. It's knowing the four steps to fixing them. And we'll go over those four steps in a minute. But we talked a little bit about your attic air, air behind the walls, communicating with your breathable air. And I threw these in sideways. And these are hard to see 'cause these actually came off videos. But this is my own house. Two HVAC systems in my attic. I went and fogged my attic, came downstairs, turned on my HVAC systems, and I should not see fog coming out anywhere. And this picture on the left, that's fog coming out my door jam going into my kitchen. A bass play isn't sealed. And every time I turn on that HVAC hot or cold, that is sucking attic air and throwing it into my kitchen. Same way with my can lights above. There's actually a bunch of fog coming out that specific can light, and I need to seal can light. Air behind the walls. This is infrared. Looking at this camera, sealed this blue, which is cold air coming out of that outlet cavity.

So we seal those up. So the air behind my walls, my attic air, crawlspace air does not communicate with my breathable air. So if some things, Beth, are just gonna be obviously anywhere, some are not. The thing, the key we have to look at is we have to identify where these problems are, find them and fix them. 'Cause if not, the problems are just gonna come back and these people are gonna be sick just like we're talking about them before. So when we go through property, we wanna look and find the elephants and red flags that are there, all contributors to your toxic load, and minimize those as much as we can. We want to minimize red flags and we want to get rid of the elephants or flee from the elephants. Here's a problem that I've run into. It's not as prevalent as it was before. But when we have mold damaged materials, there is no substitution for removing and replacing damaged materials. There's some caveats in



there, but there is not a dry fog, there is not a chemical to put on sheetrock to get rid of it. It physically has to come out. Now you can use the dry fog to clean up air afterwards, but there's not any substitution with removing and replacing damage materials or making those proper corrections. I can't remove a crawlspace, but I can make proper corrections to it to fix it. Wood. If it's not dry rock, I can treat and seal it. But if it's a sheetrock insulation, it's got to be removed. And if somebody's telling you, hey, we can do this, and just treat the air or treat that with something, that's not problem solving, that is making somebody worse. So four things.

**Beth O' Hara, FN**

Can you tell us why that you can't just spray it with something or treat it with something like the drywall or the wood and move on?

**Jeff Bookout**

Yeah, I love analogy. So the analogy I have for you when I think of that is the apartment complex that I walked into opened the bathroom door, it was Stachybotrys, three foot high by about four wide, all over the wall. And I looked at that, looked at Tim, who is the maintenance guy there, and he said, Jeff, that's dead. Okay. I know you don't realize dead mold spores or dead mold can still produce mycotoxins. I'm not even gonna get into that argument with you. I'd be happy to send into the lab and see what the lab says, which I did. But let's just look at it from a human standpoint of view. I'm renting out that apartment from you. I see it visibly on the wall. There's no way you can tell me that that's not a problem. Okay Jeff, I put bleach on it. Well, Clorox themselves will tell you they kill two different types of molds. I have hundred thousand species, a thousand of those indicative to your indoor air environment. They kill two. One of those is an athlete's foot fungus. Now I'm down to one. It is a legitimate type of aspergillus, but they'll tell you it will only kill it on hard non-poor surfaces.

**Beth O' Hara, FN**

Like tile or like ceramic.

**Jeff Bookout**

Yeah, yeah. And why didn't I just use soap and water to wipe it up with, if that's the case? But it does remove the pigmentation. It looks like it's gone. So they think the problem is actually gone. And if somebody treats something and said, well this killed it, this encapsulated it. No, there is no



substitution for removing and replacing damaged materials or making proper crushes. Nothing that you do to air or on it's gonna work.

### **Beth O' Hara, FN**

I've had people tell me that, well, I had a water jug leak on my wood floor, so then I sprayed it down with hydrogen peroxide when I saw mold growing and I don't see any mold anymore. And my response was, well you may not see it on the surface, but because that water sat there for a week before you caught it, now you have mold growing in and feeding on the wood itself. So all that wood needs to be cut out that was damaged. Otherwise it's still putting out the spores, putting out the mycotoxins.

### **Jeff Bookout**

Yes. So you've killed and treated what was on the top, but you didn't address what was below. Same way with Kinzie's room, that carpet that was all wet that I showed. The second time when she had the second leak, I was like, well I dried all this out. There's no way mold is underneath here. And I could smell it, Beth. And I'm like, you're kidding. So I popped everything up, and that's how I knew there was another leak. But you can get what's on the top, on the surface all you want, it looks magical. But if that wood floor was bowed, buckled, anything of the sort, it has to come out because you have got to treat what's on the backside of that. I had a guy that had a swimming pool inside of his house. Yeah, I know. But it leaked seven years ago. The waterfall leaked to it seven years ago. And he had water underneath his wood floor from seven years ago. It was a major mold issue underneath this wood floor.

### **Beth O' Hara, FN**

Wow. I'll never have something like a swimming pool inside a house.

### **Jeff Bookout**

Yeah, and I see it all. So basically Beth, there's four things that everybody needs to know. Number one, you have got to stop moisture intrusion, whether that's humidity above 50% or ongoing water leak. If we cannot stop moisture, we cannot stop the mold. Number two, removing damaged materials or making proper corrections. Again, there's no substitution for that. We have got to find those elephants, and if they didn't find 'em the first time, we need to go back and figure out where those elephants still exist in the house. Third step, treat the air to get those excessive mold spores back under control. And that's what we do at BioBalance. The GSE based



grape seed extract, lemon laim extract. So it's not a chemical that's gonna hurt you. But going in and treating that air. Then after you treat the air, do a good general cleaning of your horizontal surfaces to remove any dead mold spores that could still be there that could still be producing mycotoxins. So that way we've got everything in the air, we've removed any dead mold spores and we've removed the sources. A turnkey way to making sure that that house or that property is back under control. Then you know that four step well, we gotta detox that body to get those excessive mycotoxin back out of the system.

### **Beth O' Hara, FN**

So this is so important. I just wanna recap here. If there's any moisture intrusion, and that could be a leak, but that could also just be humidity. We've gotta get that humidity down ideally under 50%. We've gotta stop any kind of leaking, roof leaking, pipe leaking, water leaking from a drain, things like that. Gotta cut out the damaged materials and go out two feet beyond any kind of visible staining to make sure that you cut out all the high Because mold's kind of like a starfish. If you go out a little bit left in that material, it'll just keep growing. So you gotta make sure you get all of it. And then this third step, I find that people either miss this step or they hope that they can only do that step. But we have to treat the air to get rid of the mold spores.

And what you're talking about using to treat the air, we've used quite a bit and our clients have used it quite a bit. And this air treatment that we're talking about will help neutralize the spores, neutralize the mold, the mycotoxins. And you can do that as a maintenance thing as well. And we've had, I just wanna share a story here, Jeff, that we had some clients who, I was working with their 14-year-old daughter, and she was having anaphylaxis every time she ate, no matter how low histamine the food was. She would eat the freshest carrots, steamed, have anaphylaxis, she would eat a piece of broccoli, have anaphylaxis, didn't matter what it was.

She'd have fresh lettuce, anaphylaxis. And they had a mold inspection and they did some mold plates and did the ERMI, and they had huge amounts of mold underneath all of the floors. So for them, they were one of those rare cases where it was gonna cost more to remediate than to move. So they decided they were gonna move. And you can't just move the next day. And they weren't able to. They didn't have the funds to keep paying their mortgage and move into a hotel or something like that. So what they did was they started spraying and fogging that air with the BioBalance while they were getting ready to move. And the next day, Jeff, her anaphylaxis stopped and didn't return even though the mold was still there. So just wanted to share that



story that this just doesn't replace remediation. You absolutely have to remediate and do steps one and two, but it can buy you the time you need to move or the time you need to remediate. And we don't have time for it, but I've got 50 stories like that of people who were able to get their symptoms a little under control while they were getting that remediation handled.

### **Jeff Bookout**

Yeah. And obviously I own BioBalance, and I always tell everybody, if you're using it in those cases long as you know it's a bandaid and it's not the fix, because I hate, no substitutions. But yes, Jeff, you know I'm in apartment complex and I have three more months on my lease, I can't afford to fix the problems. What can I do? Treat the air. Yeah, I can get it night and day better than what it was immediately overnight. And let's talk about a couple of questions that we've seen in the past about, Jeff, when I treat the air I can disturb mold or mycotoxin and make the environment worse. I've done this for 18 years professionally. I've worked with countless doctors across the country. I had never seen that be the case.

And kind of when I look at things physically, if you're using a dry fog, Beth, and so go back to mold, you know how it defends itself or puts out mold spores and mycotoxins, it's like a dandelion out in the yard. So as soon as you kick it, blow disturb it, things it's gonna die, throws its mold spores out to regenerate somewhere else. But if you've seen the dry fog, and you see this dry fog, hold out your hand, you cannot feel that dry fog land on your hand. It is not disturbing that. And then you're knocking things out of the air and you're able to do a good general cleaning afterwards to get rid of any dead mold spores. So you're not disturbing anything or making that problem worse.

I've never seen that in 18 years of doing this professionally. Now if I was using some of these chemicals, biocide, germicide, fungicides, ozone in high doses, and let's talk about those a little bit too, now I can definitely see a reaction from those harsh chemicals. One, a reaction to the chemical itself, because a lot of those have a seven to 10 year half life. So that chemical is at in your house for the next seven to 10 years at half strength. But used in a chemical or even using something wet, something that could disturb that mold, then yes you can have that happen. But I certainly don't see that in a dry fog situation.



### **Beth O' Hara, FN**

And Jeff, we lost your slides here. Let's take just a second, get your slides back up. Let you know Jeff, that I'm very data-driven and I've probably driven you crazy with my questions. And I'm very research-driven, and I wanna know because of the population that we work with. I wanna know first of all that something really is effective. And I need to know ahead of time that it's not toxic for people because I'm making a recommendation to people that are so sensitive and so sick. And one of the things I've really appreciated about the BioBalance is that it's essential oil-based. It's not toxic for people.

Some people who can't tolerate the smell of essential oils may have to have somebody else fog, may have to be gone for several hours. But it's been incredibly rare for me to have anybody have any trouble with it. And we have people in our practice, Jeff, who can't drink water. And we have people on our practice who are down to chicken and rice, they can only eat two foods. So we have a really sensitive population. And I can only think of two people that struggled. So in my practice, that is an amazing statistic. 'Cause I would say about 30, 35, 40% of our practice can't even take And so, this has been extremely well tolerated. Benefect has not been well tolerated. Can you help me understand why?

### **Jeff Bookout**

Yeah. And I won't use name on products, but either you have the biocides, germicide or fungicides, or you have a tri salt based. So no matter if you're using the tri salt based, which is the least toxic, but it's still going throw inflammatory markers into your bicep, those tri salts are inflammatory for your body. So that's...

### **Beth O' Hara, FN**

What are tri salts?

### **Jeff Bookout**

Great question. And I don't know if I'm gonna educatedly answer this correctly. So the chemical that you're trying to use is salt-based. And when they're adding those three salts and throwing those into the air, then for whatever reason, they're having, and I've had this happen thousands of times, that they have an inflammatory response to those salts. Why? I honestly don't know. Now I can educatedly say, okay, biocides, germicide, fungicides, they're having a reaction to that chemical inside their body. But anytime you create what I call a chemical change, no matter





what process that you use it through, that chemical change, usually your supersensitive patients or your serious patients, your mass cell patients are going to have a reaction to that. That's why we stay away from that as much as humanly possible on the cleanup process using 12% hydrogen peroxide, instead of a biocides or germicide or fungicide. Why we use grape seed extract in a fog form instead of using ozone? Because anytime you create a chemical change, there's gonna be some type of byproduct. Usually that byproduct Beth, is ozone. Remihalos, PX fives, UV lights. A lot of your air purifiers that have an ionization feature, that ionization produces ozone.

**Beth O' Hara, FN**

Negative or a positive ionizer.

**Jeff Bookout**

Correct. So I always say if you can smell a side effect, it's not something that I want to use. There's a specific brand out there that's gotten slammed in the media recently. But I smell it, man, it actually smells good to me. I like the device personally, but I cannot recommend that device because it obviously creates a chemical change. So when I look at anything that I am going to use to clean up with, whether that's hydrogen peroxide to spray on, let's say your wood studs that had damage on them, then putting a sealant over it, even that sealant, I'm going to use a no VOC sealant. Just because I don't want that chemical out gassing of that odor that can cause people to have a reaction physically inside of the body.

**Beth O' Hara, FN**

Now Jeff, I have also heard, I don't have evidence for this, I don't have like a study that I can point to, but I have heard people talking about, that the biocides, the germicide, the fungicides and the ozone are actually seen as a threat to the molds, and they can produce even more mycotoxins as response to that. Is that something you see or can you talk to that?

**Jeff Bookout**

I don't have data on it either, but here's the two things that I see. If you're using biocides, germicides, fungicides, you're using that more than likely in a forced wet spray. So it is forceful. You stick your hand out and you're gonna feel it on your hand unlike a dry fog. Does that make sense?





**Beth O' Hara, FN**

Yeah.

**Jeff Bookout**

So I am throwing water or spraying water on a colonization of mold. It's gonna think it's gonna die and it is gonna throw mold spores and produce mycotoxin to defend cell. So that's one way I see physics-wise why using that could be a problem. Secondly is the like what we talked about before, the chemical aspect. How it affects the mold and mold things that chemical it's reacting to, I really don't know. But physics-wise, I would say at least in the body is gonna have a reaction to the chemical probably more than the mold will itself. But any time you do any type of what they call fogging with a biocides, germicide or fungicides, it is a ULV fog, which is a wet fog, which means that you have to forcibly put molecules, wet molecules in the air that you would heal in your hand if you stuck it out.

**Beth O' Hara, FN**

So that's a moisture source for the mold, which is gonna be a food source. Kind of like using bleach on mold and a porous material or using 3% hydrogen peroxide. You're really just watering the mold in the long run.

**Jeff Bookout**

Especially if you can't dry out within 48 hours, yes. Now bleach in particular can leave a phosphate residue behind, which is like a fertilizer for mold, mold loves that. So there are some chemicals that can lead those residues behind that can feed the mold.

**Beth O' Hara, FN**

Okay, that makes sense. So do you have some other solutions and options for people?

**Jeff Bookout**

Yes. So we use BioBalance. So [gsebasedbiobalancenow.com](http://gsebasedbiobalancenow.com). I always put kind of a maintenance program together for people. So we talked about the four steps. Treating the air to get those excessive mold spores back under control, that's the [havenfog@biobalancenow.com](mailto:havenfog@biobalancenow.com). That's what we use to treat the air. Now I treat my own house every year, Beth, no matter what. Excess of mold spores buildup, I have Kinzie over here, even though she's in apartment now, she still comes home quite a bit. So this house is gonna have the cleanest air I can. So how do I do that?



I'm gonna use the Haven Fog once a month. And I use the Haven Mist around the house once a month to help maintain what's into the air and what's into my belongings. Now there's other strategic. Go ahead.

### **Beth O' Hara, FN**

Well, I just wanna share with people, 'cause I know we're talking about some products now, one that, you're one of our supporters for the sponsor. And I just wanna really thank you for that 'cause you've helped make our summit possible. And two, I'm always skeptical first and very protective of our audience. And one of the things I've really appreciated about you, Jeff and your team, is that whenever I've called you and said, Jeff, I this is what's going on. I'm thinking they need this bigger package or they need to go do this. If they don't really need it, you tell me. And you don't let people spend money that they don't need to spend, and that is worth so much. And I just wanna tell you that I appreciate that, but also to let people know that increased my trust in you guys. And in addition, I've seen these before and after mold plates with just the spraying and the fogging of the BioBalance, and the differences that that made while people were getting the remediation handled.

### **Jeff Bookout**

Yeah, so great feedback. I appreciate that feedback because not everybody knows who they're talking to or the mold inspector that's coming into their house. They don't know their integrity or anything else. And I understand that and I get that. So for somebody else to say that, that is huge, because that's how I look at every job that I go into, every person that I talk to, I want to give them the best and right advice. It keeps me up at night when I can't find a problem in somebody's house. That's just how I'm built. And it's kinda like using the products, the BioBalance today. The only reason I went and bought those patents and the reason why we did is because it worked so well on our medically sensitive patients.

Hey, I want that part product and I want to get it out there to the right people. Money has never been a motivator for me, and that's easy to say, right? But all I care about at the end of the day is making sure that people have the right information to make them not ever need me again. I always say I'm the nicest guy nobody ever wants to talk to again. And I understand that and I know that going into it. But at the end of the day for me it's why I think I exist, is to help people get better. God's given me that talent to do that. And man, the more I can share it, the better that is. So getting great feedback on other people's experiences, other people's results, being



able to help walk people through it and people see that, at the end of the day, that's what this job is all about to me.

**Beth O' Hara, FN**

And you're available in both Arkansas and Colorado. But you have worked with so many. I'll let you clean that up in a second. You have also worked with so many of our clients remotely who were trying to navigate this process. You and your team and your business partner Brandon, and you've really worked with people when they brought the inspection report in. If they're in a different area and they can't get you in, you've helped them navigate this. That's been a game changer for people as well, because it's such a confusing area and it's so easy to be taken advantage of.

**Jeff Bookout**

It really is. So it's Oklahoma and Colorado, I physically go to. I live in Oklahoma then I drive to the Denver area every other week, but we do virtual inspections. And let's talk a little bit about virtual inspections for just a second. It is not boots on the ground, it's not me in there with equipment, it's not me in there with my nose or intuition. So when I first started doing virtual inspections, I was very leery about it, because I would rather and prefer somebody to physically be in that house to get the right data. But going and doing these personal inspections, and I told you about a guy yesterday, just looking at the photos, how did that mold inspector miss that in his crawlspace and how that mold inspector miss all that visible mold growth that was in these attic? And it took two minutes of my time looking at a photo. Let alone virtual inspections, we spend about an hour when we FaceTime or Zoom, and literally you walk me through that house and go around. It's amazing the difference I feel I'm able to make in those people's lives just in that hour time frame where I'm not even physically there.

**Beth O' Hara, FN**

And it's an affordable option for people as well, which I love for them. So if you can get an in-person inspector who's got Jeff's skills, if you get Jeff, if you're in his area or you can get somebody with that level of skills, that's ideal. But if you don't have anybody, then Jeff can jump on, Brandon can jump on with you and do these kinds of remote inspections. Can you walk us through some of the different options that you have for people? We started to talk about the Haven Mist, the Fog, and I know you've got the Haven Wipes and you have the carpet cleaner.



I have a question. And I know the Haven Mist is water-based. So what makes that okay when we're talking about these other water-based things?

### **Jeff Bookout**

Same thing. Go back to your 48-hour rule. And on the video there's really good looking guy showing you exactly how to use that Haven Mist. But when you're spraying that Haven Mist into the air, it's a real fine mist. And as long as it dries out within 48 hours, we don't have mold issues. So when we're doing the Haven Mist as maintaining and putting on belongings, you already know it's gonna dry out in about two hours. Now let's talk about carpet a little bit. There's Haven Clean and you vacuum out the carpet, and I think we talked about that earlier. Is getting either the equipment or running the fans, dehumidifiers, to make sure that that carpet dries out within that 48 hours. So yes, it is water-based, it's wet-based, but the answer to any wet-based product or anything wet that you do, or accident that you have, or leak that you have, if you dry it out within 48 hours, you will not have mold.

### **Beth O' Hara, FN**

So that's really helpful. And then can you talk about the Haven Wipes? These have been so helpful, and people need to do that deep clean. And they seem to be more effective than just using a wet rag. Why is that?

### **Jeff Bookout**

Well, two things. So one, yeah, the ease of use. I'm not having to spray everything down, then wipe it, it's already on a cloth ready for you to use it. I use it for two different ways. So once a year I do the dry fog on my own house. But for somebody else who just did the dry fog, doing a good general cleaning of your surfaces to get rid of any excess of molds spores, dead mold spores, or excess of dust debris is perfect for that. I also use them as a general maintenance tool. I use 'em to clean my countertops with all the time. So instead of using a Clorox wiper, something else that is more chemical-based, I'm using that handling around the house.

### **Beth O' Hara, FN**

So I wanna let everybody know that if they wanna look more into this, they can just go over to [masscell360.com/summit](https://masscell360.com/summit). We've got the links right there at the top to BioBalance. You can go straight to [BioBalancenow.com](https://BioBalancenow.com). There's lots of videos on there that show you how to use it, use the products. You have a great support team. They can use that website to reach out to you if



they need help. And then we've got a coupon code for everybody at 10% off over at [masscell260.com/summit](https://masscell260.com/summit). Thank you for this incredible amount of information. It's hard to find this kind of quality information. And I also wanna just thank you again for helping make this summit possible. It's a lot of production costs that go into making this, and we so greatly appreciate your support to help us put this out there for people.

### **Jeff Bookout**

Oh, at the end of the day, it's all about helping, Beth. And that's exactly what you do and that's exactly what we achieve to do. And the more people that we can reach and help and turn their lives around, that's why we do what we do.

### **Beth O' Hara, FN**

Thank you, Jeff. Your services are so needed and you've helped many, many, many of our clients. And I know that this is gonna help so many people watching this summit.

### **Jeff Bookout**

Thank you so much, Beth.