Unseen Drips and Total Toxic Burden: Bridging Medicine and Building Science Transcript

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Podcast Intro and Medical Disclaimer

You can't resolve the mold issue until you get rid of the moisture issue, and you can resolve to microtoxin issue till you got rid the bold issue. One kind of it gets the other.

And so that's always the approach that we take is that 3M approach inside of a structure. You've tried everything. You changed your diet, you've detoxed, and you even moved homes.

And yet you still feel sick. Headaches, brain fog, fatigue that no one can explain. What if it's not you? What is your environment? Welcome to Mold Microtoxins and More.

I'm John Bode. Each week I sit down with experts uncovering how mold, micro toxins, environmental exposures affect your health and what real recovery looks like.

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As always, if you think you have a medical emergency, call your doctor or 911 immediately. By listening to the Mold Pros podcast, you acknowledge that you understood this disclosure.

Imagine there's a slow drip from a sweating HVAC duct and you never see it. The air conditioner keeps running, the house smells a little musty, and someone in your family has been coughing for months.

So where do you begin? Is it with the person? The building? Or both? Today, we're going to bring the two conversations together.

Guest Introduction and Clinical Approach

We'll talk about the symptoms that deserve a closer look and what to do when you discover water damage and how to tell whether the problem in the home has actually been resolved.

Welcome to another episode of Mold Microtoxins and More. Here we explore how our homes, our workplaces, and other environmental exposures may affect health.

And we bring medical and building professionals into the same conversation. I'm your host, Jon Bode, co-founder of The Mould Pros. My special guest today is Dr.

Imran Khan, an internal medicine physician with training in functional medicine at Internal Healing and Wellness MD, serving the woodlands in Greater Houston area.

Dr Khan. Thank you for joining me. Thank you very much for having me, John. I appreciate the invite, but glad that glad we have the call or glad to have it on the podcast today.

It's kind of interesting. Actually happened to be in Houston today, turn diffusely. Didn't, didn't plan on it, uh, bit, found myself just on east side of town.

So, we're near, shoot. We should have done this together life, before we tear into it too much. Oh, I said maybe, can you share a little bit about your practice and your approach with the patients whose symptoms may sometimes not have an obvious explanation?

So I had the benefit, you know, taking the general curiosity from internal medicine as that framework where I was trained in. And I got, five, six years ago, interested in functional medicine, which helped kind of open up some of these concepts on microtoxins and mold and the whole environment, the world that's kind not really well explored in traditional medical training.

with internal medicine residency as well. So that kind of opened up an avenue to have a conversation with patients who will bring up that subject. When I've had exposure to mold, something happened to me, there's water and I don't feel well, what do I do?

Help. And that's generally kind a general distress call that I pick up from patients, who have this experience. That we look into this, we don't gaslight the patients.

We listen to their experiences. we understand that there can be situations where people's health can affected by exposures to water damage, mold. And then we assess them through our tests at our clinic to look for burdens and symptoms of, to at least quantify the symptoms and also measure some of the tests to help us kind of get a direction to say, yes we believe that they might be a mold factor at play here.

So our clinic doesn't necessarily ignore, we don't do any type of ignoring of symptoms. We listen to the patient and we are respectful in understanding that there are adverse health conditions that can happen with mold exposures.

Very good. With Houston, I live in South Florida, but the environments are very, very similar. Extremely humid here in Houston, a little warm. Of course you have all the storms that come with the hurricanes and that sort of thing.

So this place is like a perfect storm for having environmental exposures. We are actually, the reason why I'm in, Houston is we're actually on a commercial project.

That's a larger project that actually ironically had a mold issue due to HVAC related issues. I know that's one of the things that we'll talk about today.

It's pretty common. in this area as well as the entire of the south to have zero philic mold blooms or mold problems due to either increased humidity or just lack of proper HVAC systems.

When you talk with your patients, living in an environment just like this, what questions do you typically see or do frequently address with you patients that help you understand what their environmental exposures are in a climate like these, or help them understand their exposure could be?

It's a great question. So on a general kind of intake, let's say the patient's not coming in particularly with awareness of a water damage or mold, and there's more of just a generally visit.

It has been a common practice. I've added that into my intake questionnaires that I will often even ask, have you had any type of water damaged in the home?

So maybe the necessary link it to the fact that they're feeling anything or maybe make that link themselves. But to know that oh yeah last week or last year there was a pipe or there's a roof there some type of issue and maybe the thinking more file under repair and that's it.

So that part of the intake history to see about water exposures especially if it's inside the home.

Mold Exposure Clues and Symptom Patterns

I tried to ask that question as far as you know normally you think about occupation exposure related to people's work. I factor that in now that I'm living in the south in Houston that one of the home environmental exposures, what's the risk here of water damage and mold exposure?

So that is part of intake process. That makes complete sense. We always try to take that even one step further. When you start out on the inspection path, you're always trained about inspecting water damaged buildings.

And that's extremely important to look for areas where there's been pipe leaks and that sort of thing, or flashing leaks or roofing leaks. traditional water damage, what we find, ironically, most of our work actually isn't based on water damaged.

And so we always encourage individuals to think about it in terms of not water-damaged buildings, but more of moisture-affected buildings. So the EPA recommends that we maintain relative humidity between 30 and 50% to avoid xerophilic mold growth like xerofilic molds being penicillium or aspergillus, et cetera.

And so it's very common to actually have major mold issues and never had a water leak at all. Over, I would say over 80% of our work comes from just humidity blooms.

So it's it sometimes is more than what what kind of meets the eye. That's why a good assessment can kind help out with understanding what those root causes of moisture could be.

So when you when do you see a patient they come to your office and you start talking about environmental exposures or you're going through their symptoms, at what point do you say, okay, hey, maybe it's the house or maybe to work.

What kind of clues you into going down that path? Because some of these symptoms can be attributed to other things besides, obviously, environmental exposers, right?

So how do we kind to differentiate that? That is absolutely correct. So the symptoms for mold could be very wide, far ranging, not necessarily the same, could variable.

And the biggest kind of confusing factor for families is there could multiple individuals in the house and not all will have the presentation. Maybe one person will be have an extreme response and everyone else appears normal or closer to normal.

That's what makes it a little bit trickier. To be honest and fair, in medical community, there's a bit of an element of hear no evil, see no My first experience was when I was an undergraduate, a little bit of work on a project for mold to be measured in the lab.

We were looking at some of the mycotoxins. for a famous mold, like a Statue Botrus, Chitarra. And I remember then advanced, I did a little bit of work, you know, just more basic chemistry, basic science with that.

Fast forward to residency, remember talking with an infectious disease doctor and the question, for some reason, came about mold. It was just very abruptly said, oh, that's all been disproven, sick building syndrome, and that all,

yeah, it's gone.

I thought that was a bit odd because I spent about a year of that, an undergraduate, looking to them, well, there was something there, but all right. And then, but found interesting from that experience was that there is an undertone in medicine and a lot of patients will tell me that when they come in saying, look, I have these concerns.

It's there's a little element of dismissal. So that being said is Symptoms could be wide and varied so that sometimes doesn't always help you because it could Be a range the exposure part is what I'm looking for So it kind of another thing you touched on was that the mustiness I will always also ask about did you notice any outside of obvious water damage, which is an easy one But as far as mustyness I've even had some patients that would make a comment that you know I noticed when I moved into this new home that everything's like sweaty Like they would notice it on their, like a plunder to get the water, the condensation was present.

And in those situations, it was a very technical problem. I mean, that was more than I would expect any person to figure out, but it led down a pathway that eventually had that patient understand that there was mismatch in the way the HVAC was designed and the humidity wasn't being managed.

Some air was meeting, was mixing, something a little bit complicated with the design flaw. But a kind of a general one that most people can kind walk away from is either they see evidence of water damage or they can smell or sense the mustiness or the humidity is quite high.

Not everyone is going to look at the thermostat and look up the humid percentages, but I would encourage it. And the percentage range that you mentioned is kind is helpful.

A lot of people sometimes have that percentage rise. So if they're controlling the temperature in their homes, let's say they are going away for the daytime and maybe they let the temperatures go up.

You know, what's the humidity doing as well with that? So there's just the definite elements to look at there. But I generally would look those two elements, to ask.

And that helps open up the conversation to say, you know what, if there is an exposure here and you're having some symptoms that are hard to tack down, maybe it's helpful to then do a little bit of a cast a wider net and look a toxic burden assessment.

So that's like, for example, like when I like to use it, the total toxic burning. And I guess that's a pretty good job in my clinic for catching things, or at least helping us to start now narrowing down the direction of, hey, I'm seeing this signature here.

Now let's go backwards and say, where could this come from? You've cleaned, repainted, and replaced filters. And still, you're not getting better. Headache, fatigue, brain fog.

The doctors can't explain it, but your environment can. At The Mold Pros, we specialize in uncovering what's hidden in plain sight. Our environmental testing looks beyond surface mold, identifying bacteria, volatile organic compounds, and even micro toxins in the air that you breathe.

Then we correlate those results with your clinical data, showing how your space may be affecting your health. Next, We use our patented remediation process to safely remove toxins, restore balance and prevent them from returning.

It's more than just a cleanup. It is a science-based system designed to help your body heal by healing the environment first. If you're ready to breathe freely again, visit TheMoldPros.com and schedule your free consultation.

Because wellness doesn't start in the doctor's office, it starts where you live. Very good. Well, that again makes a lot of sense. The approach is data-driven approach, which is something that we believe wholeheartedly in.

backtrack a little bit on, again, when you go in, you know, a Spectre 101, first thing you tell us, olfactory.

Environmental Testing and Source Control

Use your nose when we go into a structure is to smell. You mentioned that musty odor that can come from microbial volatile organic compounds. So essentially, certain molds, as it's feeding on surfaces, will off-gas, right?

So it is absorbing nutrients off the substrate, and then if there's an input, there has got to be an output. And so it will create that musty odor. That's great.

There's actually testing for that. When we go in, if we do volatile-organic compound testing at home, we can actually test for microbial volatile organics compounds to see if they are molds that are producing those.

secondary metabolites. So that's a great place to start. We mirror the exact same thing as you're going through and you are doing that toxic burden with the patient.

A good assessment, which we can dig into a little bit later on, is actually going back and running the same parallel panels inside the home. So if that microtoxin report is showing that you have ocrotaxin A or gliotoxins, et cetera, then understanding where that exposure is coming from is critically important.

And so running a parallel testing inside home can really help narrowly define that. That's fantastic. Do you have patients that come to you and say all the time, this is, Hey, I think it's mold making me sick.

Or is that something you kind of have to tease out and go through a process of elimination or did he, did they have line of sight that, that maybe it was the environment that's causing issues.

That's also a great question. So the first part, you know, we're talking about was maybe the general kind of the uninitiated, so to speak, patient coming and saying, I have this suspicion or something's off.

There's another subgroup of patients that'll come in saying there's something wrong. I've been having I moved into a new apartment. Typically, the story goes like this.

congestion, brain fog, fatigue, frequent illnesses, upper respiratory concerns, a whole, whole range, you know, skin conditions, et cetera. And then usually that initiates, uh, cause it goes on and on.

People start sometimes figuring out that it's related to, Hey, when I'm home, it was when they go away for a trip or a vacation. It's a little better.

Or they might notice things like, let's say they're a student and maybe the grades are dropping. And if that progresses, that usually initiates some type of search wall.

They narrow down that, hey, I was fine until I moved into this place, this apartment, his home. Since I've moved here, something's right. And then they start just kind of investigating.

So a lot of people will do that and they'll come across eventually, not always, but eventually they may come cross an area that they weren't paying attention to.

But, you know, why is that area damp or why there's discoloration on the wall? Well, let's look behind the fridge and, see a surprise over there and then that initiates a usually a frenzied Google search or some type of online investigation which then has them look into the path of someone finding someone like myself like a functional medicine doctor.

So those are several of the cases I've seen probably more so are Where it's classically someone moving into an apartment, student, someone earlier in the phase of life, that's more common.

That's what I'm seeing. But of course it could happen at any phase. And what's interesting to me is you think that water damage mold is usually more of like the college area houses or the more simpler homes.

I've had cases where we leave in higher end. residential dwellings are also affected. So it could be as simple as, you know, poor constructions at the beginning or maybe a design flaw that you never know what you catch with this.

It's an interesting thing. I don't judge based on that, but that's based. On I, don' look at particular areas to say this is a higher risk of mold, I'm looking more on symptoms.

But when the patients that have found a source, they usually come in with that type of investigation path. Yeah, it's interesting that you said that, you know, there is some misconceptions.

The majority of our work is actually newer construction. Everybody thinks, oh, we have these old moldy homes and older homes actually breathe. And so they have more ventilation to them.

So most of my work has actually new construction, and we've done multi-million dollar model homes that have never been lived in and are extremely moldly.

It's not necessarily the age of the home. Another misconception that we hear about quite a bit is people think, well, I don't have a problem because I'm a really good housekeeper.

My house is really clean. I can have her problem. And those two things are not necessary connected. So it's how good a house keeper you are. It is how much moisture that you have in your home, right?

You can be spotless and spick and span and still wind up having a major issue. Yeah, there's some different, sometimes you have to kind of break through some of those stereotypes on what creates mold issues.

At the bottom, end of the day, it's going to be this moisture. Molds need three things to thrive. The complex carbon compound, oxygen, and moisture, the amount of moisture depends on the type of mold that it is, every house has all those things in it.

again, it kind of boils back to HVAC systems, oftentimes being one of the main culprits in the home. But when you have folks that Okay, so they find you, they've gone to Dr.

Google, the research, etc. Then they found you and you go back and have been your preliminary intake. What we oftentimes hear is, is the folks kind just want this kind Of like, yes, no thumbs up, thumbs down test, right?

So Is this it? One test, boom and be done. And it's just oftentimes not that simple, right? So, um, whether that's in the home or in person. So how do you, once they found you and then what's kind of that pathway on the testing look like, what do typically recommend for your patients to help get that, to make those data driven decisions?

So, you know, first thing, let's say we had identified that the suspicion there we do typically that our test to see if there's a micro environmentally source microtoxins, because there'd be food sources.

That's it. Separate question. And then there are the environmental ones, which we're focusing on. So we were seeing, micro toxins that are. Indication of, like the way I describe it usually is, you know, You can match the bullet to the gun.

So if the bullets of the mold that we're detecting in the test, then we can backpatch to it comes from this type of gun, and this other gun tends to hang out in, drywalls or homes versus corn feed or something like that.

That's kind of first direction we identify. There's an environmental damp building signature. Then from there, I usually, from my end, will recommend to say, please get some type of a mold-certified specter, someone who understands this.

Because the first thing I learned when I first started this was saying, get someone to fix it. And that can sometimes mean cutting a drywall and slapping new dry wall paint, and that's it, that not at all what I was referring to.

It's more of source control, so getting to the root cause. Just like we do root-cause medicine and functional medicine. As far as root cause, as far on the structural side, where did it come from?

What's happening? That requires someone that has a little bit of training obviously in your field of expertise. So I encourage people to have that. I have some suggestions that I would recommend, but I kind of let that to the patient to kind explore what they're comfortable with as for as contractors and goes down that route.

And what I usually like to kinda piggyback that once that process has started, I call that phase of it as like the source control. Identifying the sources is a part of that, Like the analogy from a medical point is if you're fighting a bad infection, like a sepsis or something, you are in the hospital, or you sick, it's helpful to see where is it coming from.

Because maybe there's an abscess somewhere hiding that we need to clean out or drain to get to the source of it. Similar analogy I like to think about when we're dealing with the mycotoxin environment.

To get the root cause, getting it fixed. and then initiating or discussing plans for detoxification. Now, if symptoms are severe and it's feasible, I would try to encourage people to kind of, you know, they can vacate the home or where they're getting exposed if it is possible.

Some people's situations, it it not reasonable or amenable. So how we kind of help people to mitigate the exposure is a start, but the overall first step is what I would call source control.

HVAC Systems, Humidity, and Indoor Air Quality

So get that situated on the environmental, the structural side. And sometimes I won't even start a detox until that part's initiated because I'm concerned about initiating, you know, pushing gradients down a detoxification pathway.

yet then there's more coming on board from the environmental. I don't want to cause, you know, physician do no harm. Don't wanna cause the worsening of symptoms first.

So that's kind of usually what my kind overall framework is, how I guide patients to get the process started. That again makes a lot of sense. One of the things that we always hear, one of questions we get asked is, is the house safe for us to stay in?

And as an IEP, we cannot answer that question because really that's a health question. So we also refer that back to the practitioner. Everybody has different exposure levels, so on and so forth.

There's medical histories. We have some. other conditions, which may exacerbate, et cetera. So our job as an assessor is to come in into a structure and really do several things.

Identify the what, the where, why, get into your point as to the root cause. That's critically important. And then the how is like, oh, so how do we resolve this issue?

And that again, once you understand what the route causes always starts with a moisture issue. Find out what that is. Then from a mold standpoint, we always call it moisture mold.

And then micro toxins come to the three M's, right? So you can't resolve the mold issue until you get rid of the moisture issue. And you. Resolve the micro toxin issue, until I get really bold issue one kind of it gets the other.

So that's always the approach that we take is that three approach inside of a structure. How do you answer that question? When a customer says, or a client, a patient says hey, is it okay for me to be here?

How did you make that determination? It's a tough one. So, you know, I look at it and usually I graded by severity of symptoms and how's it affecting their quality of life.

If I'm seeing that, hey, we see a little spot, everyone's fine, have a bit of a sniffles. I can manage with this. And there's usually in that time I say, try to maybe isolate or see what you can do, maybe get out of that room.

Do some, some mitigation techniques. So I'll usually we'll say on that side, if it's a more of a moderate direction, like having more severe symptoms, I would encourage people to take a, maybe if they can't wrap their mind about say vacating the house yet.

Take a break, go stay with a friend. Go kind of get some space from the housing and see kind observe what your symptoms are. Maybe you can get away for a week and just do a little bit of tests or get a hotel if that's maybe not able to do that.

That's kind in that mid range of severity of symptoms. I could think of one example there was, a bright young lady in a higher level education. Straight A student gets into this apartment and her grades are dropping.

She's having brain fog, severe, to the point where she can't remember even some basic words. I think the word was cup, which was telling me she was having word finding issues.

Then that's when Ashley would cross the line and they're actually talking to her mom and that was happening. Something's off here, obviously. So when they identify what's going on, in that situation, I'm like, no, this is not a negotiable.

You have to vacate and this one must go. So kind of I go by a symptom gradient. I also have the factor and I tell patients if it's cost prohibitive, understand I have factor real life issues.

Sometimes it is easy to, you're paying and you bought a home, we have a lease for a there's another element of getting out of a lease, the legal kind of impairment upon having to pay that.

So that's a factor that patients have to, a real life factor. I try to balance that as well, but if it's situation, there are some situations where it is a dire health concern that I will say, listen, I really think regardless, you got to get out here, medical advice.

That's kind a general framework of how I would put it. There could be some more detailed nuances, more patient specific, as an overall 30,000 foot view, that how would recommend.

I think there's a, uh, this is a great time to kind of dig into a little bit more about there are differences between modalities, right? So that histamine response that, that can come from just really any kind species of mold.

And then we have these chronic illnesses that could be associated with toxigenic or pathogenic molds. Right? There's different kinds of levels. Is there not?

Correct. There are different exposure levels and different responses. Some of that's based off of genetics, some of those based of the toxins, how people detox.

You know, there's a lot of factors at play, but you kind of complicate the way it looks from the outside perspective in. So that being said, different people may have different response, you might even have a situation where one person is able to function.

Let's say you're talking to someone working, a young parent, mom, father, they have their responsibilities at home, their responsibility at work, are they able to complete those responsibilities?

There's an element of that. The severity of the symptoms are impacting any of those, whether it's through a mast cell activation or direct mycotoxin or other processes, immune suppression, whatever else is the underlying

mechanism.

That gets very complicated very quickly. And then there's also differences of opinion. Some people have a little bit of people say this is a bit more or not more of this camp or in that camp.

So when I kind of see that situation where it's clinically not fully clear, I'll go based on other a more generic clinical reference point of how is it impacting your life?

So if you're having major problems in life, that's where I stop negotiating. It's time to, you know, to vacate to go. It can be confusing to families that I always want to kind of emphasize that point.

Not everyone in the family will have necessarily the exact same response. Yeah. And that always creates a challenge. Generally, not always, but generally it seems to be most frequently it's either the mother or the children that that may be exhibiting responses.

And it's the father, the male in the house is like, I got nothing. So this is all in your head. I'm fine. But in same house, we hear that time and time again, and I am sure you do in practice as well.

Well, often they'll hear the fourth M, which is money. They get concerned because they remediate that to do it properly is another M. Yeah, that's true.

No doubt. We've talked a little bit about HVACs and the role that they play. And I think it really deserves kind of a deeper dive. An HvAC system is essentially it's the lungs of the house, right?

So it stands for heating, ventilation and air conditioning. When it is working properly, not only does it cool or heat your home, but it also pulls that moisture out of And therefore not giving these xerophilic molds enough humidity or moisture to thrive.

But also it filters the air. If you have a good, you know, the EPA recommends typically a MERV 13 and MERF 16 HVAC filter. And they got to be changed, uh, frequently as, as recommended by the manufacturer, but that actually helps, improve your indoor air quality.

The project that we're on actually is very interesting. It started out with underperforming HVAC system, just older units that were at the end of their mechanical life and just weren't doing its job.

And so the facilities management company went back and replaced all the HvAC systems, but the hvac contractor put in too large a system. So the brand new systems.

And the relative humidity inside the structures were in 60, 70 percent range, which is more than enough to get mold growth. And so we have now these molds everywhere blooming.

It was because the system was short cycling or over cooling so fast, it didn't actually pull the moisture out of the air. So that's a common thing that can happen.

really important to make sure you maintain those HVAC systems really well and get the appropriate system that's in there. Because it can be, the HFACS systems can't be your best friend to maintain that indoor air quality and pull the moisture out of the air.

But also that ductwork, if it's not working well, acts as a conduit to spread contaminants all throughout the structure. If it was not pulling the moist around, it creates really just a perfect storm.

When patients report that, you know, with you, Hey, I feel better outside the home that I do inside the. We hear that that frequently. Do you actually encourage the HVAC system to get looked at first?

Is that one of the things that you do in your process? Or do you just have them go out and find an inspector who's

knowledgeable around the role of HBAC systems in the hall?

That's a good question. So generally, by mentioning the mold inspector, they will always look at the… Sometimes I get the reports and I got a copy of them.

They always have an assessment of the HVAC system, ducting, plenum, drainage, etc. I've learned a lot more about Hvac from this patient actually than all the things you were saying earlier about HPAC.

It's a wonderful luxury to have here in the South, anywhere, but it's also very complicated science. I mean, the core of it you're doing basically with thermodynamics.

Now, what was the average person going to be aware of when they're looking at HVAC?

DIY Sampling and Choosing the Right Assessment

What you nailed for sure, definitely like having the filters checked. And I grew up in North, so our systems were more in something called a basement.

So there would be the drainage would go straight down. There was a very short drainage line. That pan and straight to the drain that's in the subfloor there.

Here, there's a track that water can come down if there is a problem in that attic. So filtration change is definitely important. I think I would encourage patients to have that on a regular schedule.

And that gets people up there to look. Also, look and have an eyeball and inspect. Is there anything weird, anything, you know, what water spots pooling?

That's important also to looking into. Put that into kind of some of the discussion I hate this is an important component of avoiding this remains the most folks that will be very well aware of that I think this general guidance people should be take their investigation more closely now.

I wouldn't expect the average patient to be like what you were talking about, matching the BTU requirement of the HVAC unit to the square footage. There's a lot of science, a lotta engineering that goes in.

And kinda the take-home message I'm realizing, because several of my patients that you mentioned, like the new construction problem, have come in with new constructions properties and they're having mold or humidity problems, and it has precisely to do with the fact that what just said in more of a technical terms, the units are not matched for the size.

I don't know why that's happening. I have been noticing that a little bit more frequently, especially with the new constructions. So that all being said is I do not expect people to get an HVAC certification, but to take that unit upstairs in consideration and at least put your eyes on it every four to six months whenever the frequency is for your filtration changes.

And then as part of what I am doing, I mean, directing patients to go towards like mold-informed remediation companies, that's part of their investigation.

So I do expect that to be assessed. That HVAC system, there's a couple of mold points to add to that just to kind of pile on. If you're doing PCR, polymer chain reaction sampling, There's some pros and cons of that.

So if we want to understand, hey, do we have toxigenic fungal species? You have to get down to PCR to go down at the species level on your identification for your testing.

That HVAC filter is a great place to test. that home because it does a couple of things. One of the downsides of PCR testing is that you can get what's known as sampling bias by sampling a spot that's relatively clean, like

maybe a desktop, and that kind of not get you anything because Or the other side of that coin is sampling somewhere that never gets dusted.

And so then it becomes more of a core sample. You're actually pulling fungal contaminants that may have been there for years, right? And it's not really indicative of what's going on inside the home.

So if your patients sample from the HVAC filter, generally that gives them a look back. One is filters typically a 90 day filter. It's a better indication of recency of, what going inside this structure and two, Inhalation risk, so it's not what's settled.

It's what they're breathing in and so you can use that HVAC filters a great place for that big fan of smart thermostats as well. And so here in the South, let's make that system work for us.

Generally, and I've talked about this on the podcast before, I use it in my own home is that if you have a smart thermal set, you can generally have the setting for your humidity that will overheat or over cool whenever the moisture in air becomes above say 45% or 48%, whatever you want to set it at.

That way you're using that, that's system, the lungs of your house to actually, um, overheating over cool to pull that humidity down. So it's really just an integral part of the hall, but certainly an inspection needs to get looked at.

and evaluated properly. Setup always encourages folks to put little high grammars throughout the house to see where the humidity is and if the HVAC is, one, if your thermostat is calibrated correctly so you have good data, but also make sure you don't have little spots where you've got elevations of moisture throughout your home.

Is there a point where, when someone comes to you, and we've touched on this a little bit, you see a bit of old and they kind of freak out. So either in the windows, it could be some cladosporium, or it can be spotting on HVAC vents, maybe in a bathroom, the shower grout lines, generally that's clodosporum as well, people call it mildew.

Is your point, where you say, listen, I think this is beyond, You need to get a professional inspector to go out there and take a look and sample, Or do you have your patients do DIY sampling?

A lot of patients are interested in the DIY sampling. I think that's something that patients have interest for. They usually want to start with something of a simple home kit to validate their concerns or fears before they reach out for more of robust assessment.

So I they love that as a gateway to assess my concern about something. It's valid, it's more a mildew kind of concern. And I can be a little bit less cautious about it.

The DIY kits are very popular. And I love that suggestion you had about checking for the filter in HVAC. It's a great idea. I think it's something that a lot of patients could do themselves to be confident to do.

So typically, most of the time when they come in to me, they already have had done some type of DIY, some kind of investigation. Yeah. And we're actually working on a program to where someone can perform DIY sampling.

in comprehensive DIY sampling to understand not just if we have mold like the auger plates that you get at Home Depot or something like that, which really aren't a great assessment tool, to be real candid.

We've had podcasts that talk about that. But something that will say, okay, hey, do I have some of these toxigenic or pathogenic species that can create these chronic illness concerns that I have, or just because, and you, I'm sure you know this, that just, because we have toxicity mold species, doesn't mean they're actually producing those toxins.

And so this test will actually say, okay, do we, have stachybotrys short term? And then if so, is it actually, producing trichophacines? Or do, we has aspergillus fumigatus?

Is it producing, aflatoxins or what have you? I think empowering people. to have that control and as a good entry staff. And then once they say, Hey, this is the contaminants that I have.

Now we still got to go back to, okay, so why do you have them and how to get rid of them? That's where that inspection that will make sense. So I think that's, that important.

Money doesn't grow on trees. and, and so, you know, being able to pick and choose the right testing and being, um, Physically smart, certainly makes a lot of sense.

Recovery Timeline and Detox Considerations

Is there a particular test that you've historically recommended that your patients take or DIY testing that they frequently bring to you? No, there's not a particular one I could come to mind.

There's many very ones that various ones on the market. I haven't seen as far as a tickler trends. They have always seen this brand win versus the other.

And I don't think there is much of a guidance from the depression that I get from patients that just kind of really up to themselves to find one. So if there was one that's developed by someone, you know, the knowledge build knows, I think that'd be great.

It might even turn out to be a wonderful, you know, welcome home, welcoming gift when you're getting your first new home here. I got you a mold test kit for your new phone.

That might be actually a good suggestion for that. But yeah, I think in general, it's a kind of a wild, wild west for the DIY kits. So I don't have a particular one that I'm seeing from patients or one I've myself had a particularly stock and say I recommend this one particularly.

And that would be kind interesting. A great starting point for patients who initiate the, you know, the ravaged Google search, what's going on, I got mold.

I think that's a good first step for kind of organizing and structuring people's whole pathways. Let's check the source, my home, let's find someone who's kind understands the health concerns of it, so like a holistically minded, functionally minded clinician, and then starting that process from there.

Having those two points together would be a great foundation. for patients to start kind of an investigation at home because they always ask, right, I have this concern, now what can I do?

Obviously finding a mold kind-of informed remediation company is a great first start. Not everyone understands that, but yes, it's a first great start and then the other side is, you know, both of us are kind unique to find from the typical person who's just living their life and all of a sudden they see a spot and maybe their kids are sick.

You know for them to go from that point to finding the right people is that's kind of the the hope and the thought that I have is I think there's a lot of room work to be done in that space to get people in the Right direction and that test kit that you're describing I would be a wonderful part of that first step Yeah.

We, you know, I, we started the mold pros with the understanding that typically the inspection or restoration industry, in my opinion, does not do a very good job, uh, for, or doesn't serve people.

Well, they have environmental illness because the, much of the industry has always been focused on returning the building back to kind of this pre-loss condition, right?

So making sure that, as you mentioned earlier, Hey, it's, It's painted over. It looks good. and they really missed the boats on some of these advanced testings for contaminants that may not be readily apparent, right?

Or they're not really taking into consideration the health of the occupants. It's about getting the home looking pretty again, which on the grand scheme of things is, you know, not that big a deal.

I mean, everyone's a nice looking home, but it's really the help of occupant. So that's the reason why we started the company. And that kind of our passion.

We go that, that extra, extra mile to understand the heath related conditions. So when someone's gone down this path, they've done the inspection, the remediation, and they're on a protocol to go down that path.

The first thing is, as you mentioned earlier, you have to get rid of the exposure. You've got to make sure that you're not going back and getting re-exposed every time.

As great as your achievement modalities may be, if that's the case, then the road to wellness is going to be a tough one. So on our side, when we do a remediation project, we're going to look to that, you know, same thing.

We're gonna make data-driven decisions. So we'll have everyone, I'll encourage everyone to have the home retested, making sure it's at a normal fungal ecology.

The moisture issues have been resolved. Then your treatment modalities can start to really take hold. There's an expectation sometimes with patients that, okay, have a house treated on Tuesday.

We're good. But we got the data that shows it's fine. On Friday, I should be feeling better. That's, we see that and hear that frequently. And that's not the case, is it?

No, no, I mean you could have typical ranges. So I've had patients, you know, feel better to turn around maybe enough first like one to two months. I had some patients that go up to maybe five, six months, so in ranges, it varies a lot.

A lot of that has to do with kind of how one is your body detoxifies aggressively and do a detoxification. The other one, is kind what you were alluding to, for the people that can leave their home or they have a lot of surface area that holds on to like fabrics, clothing, carpet, upholstery.

These type of things can also act as a secondary reservoir where things are kind of re-inoculated to have you vacuuming or you're trying to do some There's some version of cleaning up, it could be problematic and it can slow down the rate of the detox.

I remember one case I think was the one on the higher end for the Detox level and we were serially tracking detox burden level. It was very slowly, coming down, but it was slower than most.

And what we ended up finding out was that, you know, the bulk of the water exposure was in the master bath. His master closet was right adjacent to that.

And he was very attached to the clothing he had. He didn't want to, it was sentimental value. A lot of, he liked his clothes and there's quite a bit in there.

But we, surmised that that was acting a bit like a reservoir because despite the extensive remediation when he didn't do the whole thing with the clothes, he even couldn't get rid of them.

And that I totally saw was a very slower detox. Do I directly measure the codes myself? No, but based on the location and what he was describing, it was my suspicion.

So Having that detoxification path is multifaceted and there are multiple aspects in all living environments and kind of surfaces are the same. Some people have more like less carpet, more carpet at Harvard, et cetera.

Uh, some people are more willing to get rid of their clothes, change their furniture. So those are all considerations

and it varies. Again, obviously cost is a factor for that.

And I respect when people say, look, I built this wardrobe up over time. I can't, you know, need this for work or school or whatnot. I hear them and I try to offer like, well, there's some other options you could do, maybe look into some type of surfactants or whatnot that could help.

But all of that put together just to highlight to the patient that it's a complicated process. Not always I get the house fixed. I take a couple of these supplements and then I'm better in five minutes.

It can be a process? Yeah, no doubt. As we wrap up, I think this has been hopefully really helpful for a lot of folks. What do you think people misunderstand most about mold and health?

I think the biggest kind of. confusion, it really hits a lot of people. It's like, why doesn't everyone equally get affected by it? So, you know, if you were to think about like I got the flu, mentally, everyone kind of gets a visual of what that feels like.

I know that the look is, the feel is how long it takes.

Key Takeaways, Telehealth, and Contact Information

it's predictable. Maybe not everyone gets it, but if do get it you kind know everyone has a concept of flu. A similar analogy doesnt necessarily exist with a mold illness because the symptom presentations varied you know, who it affects is varied.

Not everyone's bodies handle it the same. So it becomes a little bit more of a complicated process to deal with. That's part of the confusion. If I could take a take home message to the patients at large, if the audience of we're watching this, hey, look, just because the presentation in the family is different, doesn't mean it's that person's just imagining it or is anxiety.

It certainly can present differently. Something that's valid, it is confusing. Sure, clinically it will be more confusing, But for mold, if you're identifying those kind of drivers, there's the immunity, the water damage, something's wrong with your health, you move into a location you don't feel right, that should initiate a process that, should in your mind maybe have mold as far as what we would call a differential, but for the average person to think, could this be mold?

At least ask that question. And the fact that it's not a clear-cut picture makes it a little bit harder, totally appreciated. But to have a tool in your toolkit to get to your root cause of what's causing me to having a disturbance in my normal health since my change, my mood, by water, something that may have happened.

So that's kind of the main misconceptions. Not all symptoms are the same, not all presentations are same. And that, yes, makes a challenge, but it should also allow patients to realize it is a bit hard to cross out.

That question should be addressed. Very good. Do you, on your practice, and I know you're here in the greater Houston area, is your practices primarily necessary?

Do telehealth as well? Yeah, we incorporate telehealth. We use a HIPAA certified platform for video linking if we need to, or phone if people are more inclined for phone.

So that's an option to take, especially because, you know, Texas is a large state. so we're okay with comfortable telemedicine. we also welcome patients that come into the North Houston area, specifically Shenandoah, just off of 45, so very easy to get to for our Houston population as well.

If someone wants to learn more about your practice and your approach, your data-driven approach to health, how can they best reach you? So we have our main websites, internalhealingandwellnessmd.com.

We can reach us also through our website, through a form submission, a phone call. You're welcome to call us at any time. If you have answering services between the day and even nighttime, we help with the AI agents, the new addition.

So anytime you wish to call, even if it's at an odd hour of the night, you're welcome to give us a call and we'll be happy to help you out with getting an appointment.

That's fantastic. Dr. Khan, thanks for joining me and helping us look at the person and the place with the care that each deserve. Here's what I hope listeners take away from our conversation today is that symptoms deserve a careful medical evaluation.

A water leak, persistent odor or visible suspected growth deserves a carefully building investigation. For someone to be on the road to wellness, it really takes kind of this collaborative approach between a good environmental firm and a Good practitioner that is familiar with environmental illness.

And if they share this information, they shared the data, et cetera, I think that really helps folks get on the road to wellness and provides the best result as quickly as possible.

You know, what we're really passionate about is doing these complete moisture and environmental investigations, providing really clear quantitative data to the patient and to practitioner.

and using eco-friendly solutions to actually address contaminants in a way without putting more toxins to resolve toxic situations. So if anyone needs to contact the Mold Pros, you can reach us at themoldpros.com, T-H-E-M-O-L-D-B-R-S. COM, or email us info at themoldpos.

com. If this conversation has provided any help to you, or if you know someone who maybe would benefit from listening to it, to the conversation or has some health concerns, please forward it over.

Forward the episode, the link. We surely appreciate that. Until next time, I'm John Bodie. I am your host and take care of your health and your home. You've been listening to mold, mycotoxins and more with John Bodie.

If you're ready to take the next step towards a healthier home, follow the show and visit TheMoldPros.com for your free consultation. Because clean air is the first step to true healing.