Introduction to Mold and the Guests

Why is bleach a no-no when it comes to mold? If look at a bottle of Clorox or household bleach that you'd get at the store, it's usually about 4 to 6 % sodium hypochlorite, which is the active ingredient.

The rest of that's water. So you can literally grow mold on bleach. Bleach this to mold. It'll make it look good for little while. And then the mold just keeps growing.

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Hello, welcome back to the integrative health podcast with Dr.

Jenn. Today we're going to be talking about one of my favorite subjects, just because it's so apparent and we need to talk about it. We're going to be talking about mold.

So stay tuned for a great podcast. Today we're going to be talking to John Du Bois. He's a certified mold inspector, tester and remediator with the National Association of Mold Professionals, the ICRC Institute of Inspection.

Cleaning and restoring in the Professional Mold Institute. John has been a licensed builder for over 25 years, which is an important piece of the Mold Services Mold Pro offers.

John is also a member and IEP, which is Indoor Environmental Professionalism with International Society of Environmentally Acquired Illnesses, which is an international organization comprised of functional medicine practitioners and indoor environmental professionals working together to help environmentally caused.

chronic illnesses become widely known, prevented and treated. John is the founder and owner of MoldPro, a chemical-free mold remediation company based near Ann Arbor, Michigan.

MoldPro has been partnering with holistic and functional medicine practitioners all over the country for close to 15 years, working together for the mutual goal of restored health by those who they are serving.

all who have mold-related toxin illness. MoldPro offers inspections, independent lab testing, consulting, and non-toxic mold remediation services in Michigan and Ohio.

And that's how I got to know John. So welcome and thank you for helping so many of my patients. Thanks for having me. We've been honored to work with them and we do the best we can to get things cleaned up and get people.

Yes, yes. And the bio, you you might want to go back and listen to that again, because it is very important that when you are dealing with mold, you have someone that is considered an IEP, which I'm going to have you explain all that, John.

Like, why does it matter? What does that mean? So there's probably different levels. As far as people that remediate, there are people that you can get that will come out with pool bleach and just put spray pool bleach in an attic or basement and say, yep, everything's good.

Never good and never healthy for people. We are probably at the opposite end of that scale. We don't use any chemicals at all when we remediate. It is important to have somebody that knows at least what they're doing.

Some states license IEPs, other states… Michigan or Ohio at this point do not license. kind of wish they would, but at this point they don't.

Why Bleach Fails for Mold Cleanup

So it can kind of be like the Wild West as far as what's being done on remediation in homes. Yeah, and that could be kind of scary because when you are told that you have a mold illness or there might be mold in your house or you get an ERMI and it's positive, like you can waste so much money if you're going to someone that isn't remediating it properly because it isn't really regulated.

And we see this in the health and wellness world too. see this also. So you just, you have to do your due diligence. And you, I like cringed when you said they spray bleach on it.

Like. And why is bleach a no-no when it comes to mold? Well, if you look at a bottle of Clorox or household bleach that you'd get at the store, it's usually about 4 % 6 % sodium hypochloride, which is the active ingredient.

The rest of that's water. So you can literally grow mold on bleach. It'll bleach this to mold what a lawnmower is to grass. It'll make it look good for little while, and then the mold just keeps growing right.

I love that analogy. Yeah, because so many people are like, I just put bleach on it. I had some mold and I'm like, that's like mold food. And you actually gave the recommendation that if you do see mold, obviously investigate like why is it growing there?

But if it is just a really humid area and you are getting a little bit of mold growth, you said to use what vodka? We use vodka to wipe and clean. Yeah, and that is from the Surviving Mold Group.

We use vodka, hot water, usually Dawn dish soap, which is low chemical dish soap, and vinegar to wipe with and clean. And that has worked very well for us.

we don't use any chemicals at all. And chemicals aren't needed. And then as you know, a lot of people too, if they have a mold sensitivity, the chemical sensitivity almost goes hand in hand.

So for maybe to walk into a home and dump a bunch uh of chemicals on mold, all they're doing is usually just making the problem. Yeah, well, let's back up.

How do we actually ensure mold doesn't grow in our home or businesses in the first place? So mold takes three things to grow. So it needs a food source.

So in your standard stick-built home, 75 to 80 % of that home is going to be a food source. So all of your framing, your roof decking, your subfloors, doors, trim, paint, drywall, that all becomes a food source.

All you can really take out of that that's not a food source is going to be glass, vinyl, steel, copper, that sort of thing. So it needs a food source.

It needs a spore. The spore is everywhere. This time of year in late August, everything's growing outside.

How Mold Grows and Why Moisture Matters

So the spores are everywhere. and that's the mold seed. And then all it needs beyond that to grow is 50 % relative humidity or higher. Some people will say 60.

I usually take the conservative path and say at 50 % it can grow. So the easiest thing to do inside a home to prevent mold growth, the home in general is made of what it's made and the spores are part of nature.

So the best thing to do is just control moisture and humidity inside a home. Yeah, so you're going to have spores in your home no matter how clean your home is, right?

Like it's going to be there. So you just need to not have it grow. Exactly. The spores are everywhere and no

structure is immune from that. Yeah, so we see a lot of mold growth in showers, bathrooms, and then in the basement.

So that has to just do with the humidity of those areas? The humidity, so of course in a bathroom with tubs and showers and that sort of thing, you're going to have all kinds of moisture in there just from the nature of the showers and the baths.

Basements, basements in the upper Midwest here in the Michigan, Ohio area, they are going to have elevated levels of moisture almost no matter what. A dehumidifier is certainly recommended.

It's still probably the best way to keep a basement dry. If you can have a dehumidifier that runs to either a drain or a sump pump crock, so you don't have to go down and empty the pan of the dehumidifier, makes things easier for people as well too.

Yes, and this is what is so hard is sometimes people will go to a new home or buy a home and there's not dehumidifiers running. there's mold growing down there.

I mean, it's almost assumed that if you have a basement and you're not, you don't have a sub-pump or dehumidifier that there's going to be mold down there, right?

Yeah. it's almost a, I won't say it's a complete universal principle, but a home, a home in the upper Midwest, almost every home with a basement needs a dehumidifier.

It's very rare, a home not to need a dehumidifier. Sometimes a home will be a walkout where there's not as much below grade in that basement, but in general, just about every home needs a dehumidifier.

And roughly, usually it's St. Patrick's Day to Thanksgiving time is usually when that dehumidifier is needed. But the ones that are out today, the new ones are digital.

You can set them. I usually tell people to set the dehumidifier for 40%. Shoot for 40, most homes can't get that low in the summertime. Better shoot for 40 and wind up at 48 than shoot for 50 and wind up at 58, because the biology changes quite a bit in that span.

Yeah, wow, that's crazy. And I'm glad you said walkout basements because that is that can be common. So then you still need to have a dehumidifier there.

Okay. Well, what are, what are some signs that your home might have a mold issue going on? So any kind of leaks, especially like foundation leaks, anything that's coming in from the outside, if the grating's not right, if the gutters and downspouts aren't getting the moisture and the water away from the home, that would be a potential clue.

If there's been a lack of dehumidifier, that would be another clue to certainly look for in a basement. Any kind of leaks, anything coming from a tub or laundry facilities or sink, tub, showers, any of that, can give localized mold, not necessarily mold everywhere.

as far as a basement goes. In a first floor, clues to look for there are going to be mostly be plumbing leaks. If it's a single story home with the attic above, then you'd also just check the ceiling to make sure that there was not water stains coming through, would be indicators of a roof that is basically run as course it was done.

But those would be some of the easiest ones. The other thing to look for inside an attic is venting. Venting issues will almost always cause trouble in an attic.

Venting issues can either be a bathroom vent fan that's venting into an attic. that's not going all the way outside.

Basements, Bathrooms, and Dehumidifiers

Current codes would have that bathroom vent fan going all the way outside, but lot of older homes weren't built under that code. So you can have the warm, moist air just getting pumped into an attic, which is never good.

And then a lot of times, soft vents are either not there or got covered up with either insulation or venting material on the outside. Sometimes ridge vents aren't cut open wide enough at the top of the roof as well too.

But those would all be things that can… contribute to mold inside a home. Other things that can also contribute if someone has a basement, even with a dehumidifier, those days relatively dry if they have just a lot of boxes and just things that are down in that basement.

Mold loves cardboard. Stachybotrys, which is the black mold, loves cardboard. You never really want to put a cardboard box on a floor in a basement. ah It's almost an incubator for Stachybotrys mold.

So just homes that just have too much stuff in them, especially in the basements, can also be trouble. And what happens is those areas with boxes or whatever the things are, they will take on moisture and then it takes a long time for them to give that off.

that mold loves that extended amount of moisture for mold. That's an opportunity to grow, Right. So if you wanted to poison someone, you just take a bunch of cardboard boxes into their basement and unplug their dehumidifier.

And then bam, they got stacarbactis in there and. So it doesn't take long. It takes about 14 days to grow. And if there's enough moisture, it loves cardboard boxes.

Yeah. Oh, so, this, was crazy because this is when I had you come out to my home. We had, it was two years ago, there was like a freeze and one of our pipes froze because it was over Christmas and we were out of town for a few days and we could tell exactly when the leak was because our water bill went up really high.

So, you know, praise God there was a drain in. the basement that was keeping the water draining. So it stayed in the bathroom. It was our master bath and went down and we like literally came home and I was like, honey, like get someone over here to tear everything up.

There's mold growing because it takes like less than 24 hours. And everyone thought I was a little paranoid, which tends to happen. If you start talking about mold, people act like you're a weirdo or you're paranoid.

There was black mold, new black mold growing on the two by fours. Like that fast. And everyone just looked at me and they're like, wow. And I'm like, yeah.

And this was in December. So the humidity was not high. We had a sub pump. We had all the right things. We got all that pulled out so fast. I mean, so say someone like has a leak in there out of town, like you could be growing mold.

So sometimes I know people get those moisture indicators to put under a sink or a bathroom. Have you found those helpful? Oh, those are great. Those are really great.

Next to a sump pump crock. All they have is two electrodes at the bottom. So with water hits that basically connects the connects the electrical connection and then it'll sound like a smoke detector or fire alarm going off in your basement.

Those are great. I think you're going to get those now. They'll even communicate with the cell phone. Yeah, that's what I saw. So if you're like out of town or something, because that's like the interesting thing is like people will have rentals or they're out of town for a week and say their air conditioning goes off and then they're at what like 80 % if that happened in Tennessee over the summer, we'd be at like 80 % humidity.

And then how like how quick can mold grow in those conditions? And where would you see it? So penicillium aspergillus will grow, that is the most common mold we have on the planet.

It's also one of the quickest growing. So some people will say it'll grow as quick as 24 hours after a water event.

Signs of Mold in Homes and Attics

You go up a little bit from there up to 48 hours and you start to probably get maybe not quite universal agreement, but a lot of agreement that yeah, that mold will start to grow.

It's very prevalent. One of the reasons that penicillium aspergillus is so prevalent is because it grows so very quickly. Yeah, and that's ochratoxin A that it's producing, which is pretty common.

So we don't want to freak people out, but like you're just, we want you to have knowledge, right? Because mold can cause all sorts of chronic problems from migraines to kidney disease, right?

To cancer, to MS. So I mean, this is very important to make sure your environment is as non-toxic as you can get it. And, you know, sometimes schools have mold or work buildings and sometimes you can give them the knowledge and they'll fix it, but a lot of times not.

at least keep your home and where you're sleeping the best because most of the most worst cases I've seen has been like if it's… But we didn't talk about crawl space.

So in the crawl space underneath their bedroom or in the closet in their bedroom or the window sill. So can you… Those are the most like patients that come to mind where it was like right there where they were sleeping.

But can you discuss… crawl spaces and then like windows and window flashing because I've seen those cases a lot in patients. So for crawl spaces, crawl spaces are kind of like a forgotten area of a home.

A lot of times, much like an attic or a basement, because you can walk through them, it's easier to keep an eye on them. So crawl spaces, a couple of things that are relatively basic.

One is they're supposed to be, if the crawl space has never had plastic and it never had any sort of covering over the soil, it's always a good idea just to get the wood, whatever wood or cardboard or other things that are out of there.

Depending on the age of the home, you can find almost anything in a crawl space. So anything that will grow mold, which would be anything organic and porous, you'd want to just get that out of there.

So that can get raked out or just get it out one way or another. Things like stones and brick and block aren't that big a deal because they're not a food source for mold.

But it's still a good idea just to get as much of that out of there as possible. Cause you never want that wood even from when the home was built, just to be sitting in the crawl space taking on moisture.

So a crawl space can get very damp. So there should be at least if the home was being built today, it would have a six mil. plastic barrier on the floor, at least to the crawl.

Some people say ramp it up or wrap it up the walls about 12 inches. We actually like to take it all the way up to the sill plate of the home and staple it there.

That way the walls and the floor are completely covered and you're not going to allow much moisture in that way. That'll help. It's also in different states have different codes on this, but it's very good to have foundation vents in crawl spaces.

So fresh air can blow through and you just never want to trap moisture inside a crawl. And you'd be amazed at how many crawl spaces, either those vents that people don't use or they're permanently closed, or sprayed full of insulation, there's that.

A lot of crawl spaces also don't have a vapor barrier on the floor. Another thing that's also needed in crawl spaces is rim joist insulation, which would be right on top of that concrete wall.

If you don't have insulation there in the winter times, it will get very, very cold and you can get condensation. So any cold surface connect, like a dehumidifier, you could condensation buildup.

Other things that some people are moving towards more now as opposed to foundation vents is just running the HVAC through a crawl space. So then you're conditioning the air.

So your air conditioning will condition the air. Your furnace will condition that air. And you're not relying on nature, say, to just move air through and remove moisture.

Either one is probably fine. I just always hate to see a furnace that's pulling moisture or pulling air out of a crawl space unless that crawl space is very, very clean.

So of the two systems, I probably still air a little bit on the foundation vents. and just let the air blow through and then that way you don't have to worry about your furnace pulling anything through.

There's never great air in a crawl space probably almost no matter what unless it is pristinely clean. So would a basement be better or they have their pros and cons?

I think basements are better. do think basements are better just because you can walk through them. can look in a lot of homes, crawl spaces. I some people will throw the Christmas tree in the crawl space.

Other homes, they're still wet and so damp you really can't do anything with them. They're basically just useless spaces. So therefore, if there's nothing in there, nobody ever goes in.

Another thing too with a wet or damp basement, some people will just put a dehumidifier in there and just say, forget it. We're going to forget the venting and we're not going to put an HVAC system through there.

We'll just put a dehumidifier on there and just let it drain out to a drain someplace else and just let that manage the moisture in the crawl.

Crawl Spaces and HVAC-Related Mold

All right. Well, that brings me to another point, another like source of mold can be HVAC systems. And also with that, like I'll have patients where they'll have mold in their basement and they visibly see the mold.

And they're like, but it's just in my basement. And I'm like, you don't have air conditioning in central air? And they're like, yeah. And I'm like, it's throughout your house then.

I think… Talking about HVAC is so important when it comes to mold remediation. So the air conditioning coil that is inside a furnace, if the furnace is in the basement, then normally that air conditioning coil would be just above the furnace.

That's similar to a radiator and a car, but instead of it getting hot, it'll get cold. So as long as that's working during the warm and hot months of the year, there's condensation coming off of that.

You always want to make sure that that drain is working just fine so the moisture is being drained away. Some newer furnaces have a panel that can get either unscrewed or detached from the area.

So you can look right in on those air conditioning coils. If not, it's a good idea to have a panel cut there so that every once in a while, maybe once a year, every year or two, take that panel off and make sure that air conditioning coil, what it should look like is good clean aluminum.

There shouldn't be any signs of anything, but some of them look like a high school biology experiment that blew up inside the furnace. There's just stuff all over the place.

There's also insulation that's in there a lot of times. That insulation is kind of tacky, so it'll grab a lot of airborne dust and dirt, and then mold can grow on that as well too.

So it's a good idea to get that checked. It's a good idea to make sure that everything is draining properly. And then even any drain that comes out of a furnace, either out of the combustion chamber or coming out of the air conditioning coil, it's also a good idea to have traps so that when that water runs out, it will usually run to a floor drain or the sump pump crack.

But a trap, just a standard little trap, will help to stop the furnace from grabbing air out of some of those areas. like a floor drain or a sump pump crock and pulling it back in the house.

We've also seen where air conditioning systems are not set up properly or something's going wrong and they're not removing enough moisture out of the air.

And then in the summertime, then that winds up with a lot of extra humidity inside the home. But the essential air should help to assist a dehumidifier in getting moisture out of the home.

And then the other thing is it's a good idea to get your ducts cleaned usually every three to five years. If you add in a pet or kids or depending on where you live, if it's more forested or wooded or in a farming area, it's usually a good idea to take that down even maybe less than three years.

If somebody has a lot of health complications, probably not a bad idea to even get down to every 18 months to two years. And what about cleaning or changing those like air filters in your HVAC?

Like how frequently that should you do that and does that help? Those, it helps. And then there's all sorts of different levels of filters out now, even down to like a little two or $3 filter all the way up to Merv, I believe Merv 13, I believe it's now the highest.

It's a good idea to check them once a month. It's not a bad idea even to change them out relatively frequently. Just whatever has been in your duct work and whatever's in your duct work in your home, the more you change that out, the better you're gonna filter the air in your.

That's great. Now, what about all of the high tech like HVAC, like UV rays, like you know I'm talking about? Like, what do you think about that when it comes to mold?

would, I mean, obviously if you have a mold problem, an UV ray in your HVAC isn't going to fix the actual problem. But do you think those are helpful or not or pass on?

There's two schools of thought on those that go right on the duck work. One is that if UV light was so bright that it was going to do a lot constantly or with one pass of the air from the home passing over it, that UV light would have to be so bright it'd be harmful to humans.

The other school of thought is if it's a cold or like a Michigan, Ohio type of climate, the air is going to pass over that multiple times a day. So even if it's say only getting rid of or killing say 5 % of the contaminants in the air, but if the air from the home, let's say one one cubic foot of air.

that passes over that light five or six times a day, you're still getting rid of some contaminants. There's, can tell you on some of those too, in fact, I was talking to somebody about this this morning, there are some of those UV lights that go on the ductwork.

There's some of them where a company will make two different models. One is the California model that puts out no ozone, puts out no ozone. then they also make another model that will put out ozone.

So California with their California Air Restriction Board, wherever it is, the CARB rules, they don't allow any of that. What we get with the rest of the states will sometimes not have the ozone, but California's, sorry, California doesn't have the ozone.

The other states do have the ozone. Sorry, I stumbled on that a bit. That's the difference. So what we've had people do in our area is we've had them order the California, UV light and then that way there's no ozone being produced.

The other drawback to ozone is ozone will literally break down plastics and vinyls inside the home and even wiring back in the walls and you don't want to break down the insulation around the wires in the walls or switches and plugs.

And if the ozone is too caustic, it'll really start to break down plastics and vinyls that are inside the home and it starts releasing other VOCs from that.

Testing Methods: Air, Dust, and Plates

Yeah, yeah, I mean a little bit of ozone or targeted ozone therapy is good, but I don't I wouldn't be comfortable having it all the time in the air. It's not a great idea to have too much inside a home.

Right. Now here's the tricky part, testing. There are so many different views on testing and IEPs no more than someone random coming in to check a school or a business, right?

They're just doing like the plates and then saying everything's fine all the time. But this is a real thing. Microtoxins cause real illnesses. What is your preferred testing?

Maybe give your favorite two. Sure, to try to find mycotoxins in a home, so real time labs out of Texas is what we use. We take two medical grade cotton swabs, go right in the duct work, right near where the furnace filter is.

I usually take the filter out and test right there. And then those cotton swabs, we just get as much dust as we can get on those. They get sealed, they go back, they take a look at them.

They will give a fungal spore count, which is a test result from one of the swabs. The other test result, can then tell you the mycotoxins that they find on that swab in that furnace.

So the thinking of testing the furnace is that obviously all the air in the home is going to pass through that furnace over and over again. So it's going to give you a pretty good idea of exactly what's going on inside the home.

If you test right there, right next to the furnace and right next to the filter. that's, that's that and that's relatively new. And I believe that they're the only ones that are running that test right.

Yeah, but otherwise you could do a DOS test like the ERMI or something would be appropriate too also. Correct. and Hertzmi, I think it's good. I think it's good for the Ermi or the Hertzmi for people just to review roughly how that's supposed to be done.

It's only supposed to be about 20 square feet. So if you think about a door that's three foot wide inside your home, you're doing just about that amount of square footage of walls.

I think also think it's best to do one per floor to really try to isolate. OK, do we have a higher level in one, let's say a higher level in the basement than we have on the first or second floor?

Those are also very good as well too. You're supposed to stay away in general from getting too close to the floor, stay away from ceiling fans and that sort of thing as well too.

Probably almost any ceiling fan would probably give a, probably a bad result on a Hertz mirror. result meaning false

positive or false negative. Usually it would be too high because they would just collect all the dust.

Got it. Got it. Okay. Yeah. And what I thought was so interesting when I first, know, a decade ago, like I learned that dust actually like is wet and mold likes dust.

And I just think that's so weird because you don't think that. Mold loves dust and then really when you get down to it, dust a lot of times will have plant fragments in it.

It can have inside a home, can have skin cells and hair from people and pets. And that's actually pretty fertile ground for mold to grow on. And you're breathing that in, you know, like the dust, like, you know, when the sun rays, like, well, not a lot where I used to live in Ohio, but, you know, when the sun goes across the living room and you see this dust and yeah, so I have a lot of portable, I like the Jasper air filters, but, know, to help also.

And then… know, vacuuming, dusting, which could be better at that. That all is going to help too, because yeah, you don't want to be exposed to it. You don't want to give that mold a place to grow.

So what does it mean that when you get these air quality reports, you know, from these, you know, not IEPs, but these, you know, people they call in to test schools or businesses or even homes sometimes, why…

Can you explain what they see when it says what's in your home versus outside the environment? what they're on an air test, the comparison that people are looking to make there is the overall riding principle is that we as humans have no control over the outside air and what's in the outside air.

So that's just nature and nature is going to control the outside environment. So on an air test, what we're looking to have or what people are looking to have is numbers that are lower than the outside air.

Similar or lower, I believe would be the term. Those tests are good. will say though, one of the drawbacks is in a Northern climate like Michigan or Ohio, and it snows in the winter, there's usually nothing outside versus this time of year.

The levels outside are so high that probably almost any house is going to show a lower level inside than what it does outside. And what do you think about like plate tests?

Those are your least favorite? Those are, ah they've still got a place as far as finding out what's in our environment. I know that a lot of people are now running them at home.

They will get with a lab. We'll send them four or five plates. Those are always covered with a potato auger, which is basically sugar that's extracted from a potato.

And it will still tell you if something's growing. One thing that's nice about those is relatively inexpensive to compare say rooms inside a home. So you could almost, if you got a three or four bedroom home, you can almost put one in each room.

And then within a few days, you could say, okay, why do I have so much growing in that bedroom? And then this plate over here, it has nothing growing in it.

So they do have their place. I hope at some point in our world or in our country that there's a better way than what we have right now to test for mold period.

Cause I don't think anything we have is perfect.

Can You Build a Mold-Free Home?

Yeah, yeah, I agree. It's very hard to explain it. And it's not always just the spores, mycotoxins, it could be the VOCs, it could be behind you in the drywall and that's leaching through and causing you sick.

You might not even see the mold. I think that's what makes, well, and it's interesting because, you know, mold illness is an invisible disease, right?

Like patients. They, don't know why they feel so bad. And then mold is literally invisible and it can be very frustrating. I will ask you this. Do you think that you could make a mold free home?

Like, so say you had unlimited resources. Do you think that's possible? Cause I say no, cause you still need water going through there and you still need an HVAC, but there's like a doctor out there.

He told one of my patients that his building a mold free home and I'm like, that's not possible. So I was wondering your thoughts as a builder. It would, I think there's ways, I get that question a lot actually.

I think there's ways that you could certainly reduce your chances. Most people would probably, to go to say a zero mold, you'd have to almost have people like cleaning themselves and cleaning their clothes before they even entered the home.

Because mold can come in easily, you know, on clothes and hair can come in on a pet, you name it. To have a home that let's say grew no mold, you'd almost have to have it to me, you'd almost have to it made out of metal and glass almost completely.

Right, right. That would be tough in northern climates. It'd probably be very cold home because it'd be framed in metal and that cold would probably have a tendency to work its way through.

But even on a stick-built home, if people just keep an eye on their builder as homes are being built, that would help. There's certain materials that we can use that would be less mold resistant.

Even in finishing a basement, a lot of people will still finish a basement and they'll use wood framing. I'm a big fan of metal framing in basements just because you remove that food source.

ah Like people need to like come back in trades and learn how to plaster homes again. And I know it's more expensive, plaster is basically like cement ish.

So it's not mold food. You're correct. can get mold to grow on the paint or the primer and plaster, but the plaster itself is not really going to grow mold at all.

Yeah, that's why I love my old brick and mortar because it was, it was plaster because it was such an old home. And I'm like, it's the perfect place for me to see, you know, patients that are ill.

We, it was actually crazy, John. So we were looking at moving like a location like five years ago. And I went to show my front desk person who was dealing with some mold stuff so she could smell it right away.

And me too, I can smell it. And we walked in and we had just. went through it the week before, but we walked in and it just reeked like mold, the air conditioning like leaked and it fell through the ceiling.

And they're like, we can remediate it all. And I'm like, no, unless you get John and MoldPro, like you're not going to do it right. And there's still going to be mold and my patients who are sick would feel sick in there and I would not work in there.

But it's so crazy because a lot of these builders and a lot of these people that do remodels, they know nothing about mold. They are just painting over it.

They don't care. This is why, you know, like house flipping, like they have that opportunity when they tear everything down to remediate properly, but they don't.

It's so scary. The houses that get flipped, I would tell anybody to be very leery of those. And a lot of times you'd

reference earlier lipstick on a pig and that a lot of times that was that's what that is.

We've ran into a lot of those and it's really people are just painting over things. um And in new homes, even brand new homes, I can tell you, I think we've worked in six or seven homes this year that have not even been occupied yet.

Yeah, no one's here first night in the home. So there's really a lot of things. The whole mold proof or mold resistant home. is probably a discussion that could last for hours, but there are ways to at least help our chances.

to mitigate. Yeah. when you're buying a home out there, ask for a mold test. Now I didn't love like the kind that they did, but before we moved in, before we closed on our house, I wanted to make sure that the levels weren't extremely high.

And it was similar to, to the outside. And there were like some, hadn't been occupied for a little bit, but they had ran the air conditioning and stuff.

So it was fine, but that was something, it didn't smell like mold when we were in there.

Chemicals, Porous Materials, and Mold Exposure

But I still wanted to make sure and that's another thing like if you smell if it smells musty, so you're walking through a home or a building that is that's VOCs that's volatile organic compounds that that will make you sick.

So Yeah, it usually gets your attention because it reeks in general. Yeah, you're like, oh, it smells musty. And okay, so maybe they have like a bunch of plants or something.

But think of a rainforest, it's very humid. So if it's humid, then there will be mold growing. So just like this is very important for health. And I think this in 20 years, this will be normal to talk about.

But until then, you know, it's just not catching on in medicine. Now, here's the other problem, though. So say someone has mold and they try to get remediation and they're only offering chemical remediation.

We spoke about that bleach was bad. I mean, there has to be a different way. So why are chemicals so bad to spray on mold and what are the other options?

So again, back to a lot of people, especially I think women are affected by the chemicals almost more, but if people already have a mold sensitivity, chemical sensitivity is almost always hand in glove.

So it's rare for me to work, say, with someone who wears a cologne or perfume that has mold issues because that's even worse for them basically. That's one.

The other thing is no one really knows what compounds are formed when you take mold that's making its own MVOC, the mycotoxins, and then we dump a man-made chemical on top of it.

To my knowledge, nothing's ever been studied as far as what happens when we put those two chemicals together is another problem. And then a lot of these chemicals that people are dumping in homes, if you really look at the labels, will pull up the MSDS sheets.

They say that they can get rid of mold, but usually it'll say on a non-porous surface. Well, you can get rid of mold with Windex on a, a piece of glass or stainless steel.

Well, that's another issue. The other thing is nobody really knows how long it takes for those chemicals to break down or get to their half life or even be gone in a home.

So you can have somebody in there and they might not know how much you're supposed to use or what

concentrations are supposed to be used. So they could put a concentration way higher than what's supposed to be in there.

And then still then nobody knows. The second thing is what compounds occur when that chemical is joined with a mold. And then how long does it take for that chemical to go away or actually leave the home?

And that's what's a little bit scary too. So you could put a chemical into a home today and it could affect a child that's not even. Right. Yeah, it's scary.

And even with new homes, there's a lot of off-gassing and you have to be concerned. And I would say it affects women more because our estrogen or estradiol is metabolized through our liver.

And if our liver is so busy processing all these chemicals plus mycotoxins, uh it could be a big problem because mycotoxins alone I've seen in women just wreck their hormones.

And we fix. We fix that, we fix the mycotoxin, that burden, and then their hormones balance out. Fascinating. It's science though. So, okay, as a builder, you mentioned porous and unporous.

Can you please explain that in a little bit more detail and why it matters when you're cleaning mold? Sure, so porous in a home, all the wood framing, all the trim, all the drywall, all that is porous, which means that mold and really even water or anything else can get into that surface.

So that can be your dining room table and your kitchen cabinets, just about anything that's porous. So the main thing is to think almost just your framing lumber, the two by four, two by six, two by eight, any of that sort of thing is all gonna be porous.

All your roof deck, all your floors are all porous. Non-porous is really the list gets much shorter. So non-porous, then you're going to really look at metals.

So anything metal that goes into a home, uh anything glass, any plastic, those are going to be the main sources of non-porous. So you're going to be looking at windows like vinyl windows and that sort of thing.

A granite or marble kitchen countertop, quartz kitchen countertops would be considered non-porous. ah Cement is the other big one too. Yeah, the one thing that's a little funny about cement is so it is true that technically cement won't grow mold, but if it has enough dust or dirt collect on it, then it can actually start to grow mold.

And then in some situations, if there's a consistent flow of water from the outside, you can start to get it to grow mold very easily on the inside. That's even on concrete or cement that doesn't have any paint or primer on it.

So technically, concrete won't grow mold, but you can still see mold on it. Hybrid vice insulation is another example. It's non-porous mold can't grow on it because fiberglass in and of itself is just spun woven glass.

Glass won't grow mold, but you can get a lot of mold stuck in insulation as well too, especially if the home's in a rural area or farming area. It's easy to get a lot of mold in the insulation in an attic in a situation like Yeah, that's really interesting.

Now, what about clothes? So say someone, they were living in really bad mold. What about their clothes? What about their furniture? I know it kind of can depend on how severe it is, but what would they do in those cases?

So clothes, the main thing that most people in the medical mold field are gonna say is at a minimum wash those clothes in Borax. Which Borax, could be 20-mulitine Borax, which is still available, which is what's been used, I think, for over 100 years to wash clothes in our country.

Borax is a very good thing to wash clothes in. The more, the thicker that piece of clothing would get, let's say a t-shirt, you'd probably have better luck maybe of getting mold out of it, because it's very thin, versus a heavy

sweatshirt or a winter coat.

So the thicker and the more density there is to that piece of clothing, probably the harder is going to be to get rid of it or get the mold out of it.

Some people also say if there's quite a bit of mold, probably the best thing is just to get rid of those clothes. And I don't, I usually don't recommend to even donate them.

Non-Chemical Remediation and Choosing a Pro

Just get them in a dumpster and they're gone. To get rid of them. The same thing can be said for textiles of all types of bedding, towels, washcloths, all of that could get washed potentially.

But if someone's able to, it's also not a bad idea just to get rid of it completely. And then back to furnitures, almost back to the porous, non-porous conversation again, whereas let's say a dining room table that's wood could certainly have mold in it.

Whereas a dining room table that maybe is maybe steel and glass, you could wipe that and you'd like to think you'd get rid of the mold by just wiping it and getting it clean because it's not a food source for mold.

Yeah, everyone's going to be walking around their house now looking at everything differently, like porous, non-porous. I mean, it could be a little overwhelming, but this is just knowledge and you can, I've had, gosh, like hundreds of patients that have like literally just thrived and survived mold and healed from it.

So, no worries with that. So now we kind of covered chemical. What is the non-chemical removal of mold look like, especially in those hard places like the basement or the attic where it's on the actual wood beams.

Like, do you cut it out? Sometimes you cut it out. Sometimes can you do something else? So in an attic, we would normally dry ice blast. So dry ice is CO2.

It's what we exhale from our lungs. It's 140 degrees or so below zero. Our process is very similar to sand blasting. Instead of sand though, we're just using dry ice.

So our machines take the dry ice, turn it into a grit about like sand. We blast it at the wood at about 700 miles an hour. And it strips the mold away.

It also helps to abrade the root that's underneath there, which means to basically either get rid of the root or. damage it to a point that the plant can't regrow.

Sometimes someone will elect to have the roof just redone, have all the wood come off and start over again. That can still sometimes leave mold though on the trusses, especially on the top stringer of the trusses in an attic.

So that's a couple of different routes to head there. A lot of that would usually depend on uh a question of money as well as how much life is left in the roof.

If someone's roof is five years old, they usually say just blast it if the roof is in its final days. And a lot of times it's best just to take the, just take just take everything off and start over again.

In a basement situation, if it is say the underside of the first floor where it's the framing of the home that really, really can't or really shouldn't come out, we would do the same thing where we dry ice blast.

If it's on walls, non-supporting basement walls, let's say two by four walls, we're doing a job like this right now where the water's just come in with a drywall and wood-framed wall.

We usually don't fool around with that. We just cut it away. So the drywall goes away, the wood framing goes away,

and the insulation goes away. And then if there's mold, that has grown on the concrete, will happen sometimes, then we have ways of taking that mold off of there and getting that sealed back up again.

Yeah, and it could be really frustrating because sometimes it happened to us when we moved into our old home, the roof needed replaced. And in our entryway closet, there was mold that they had just painted over and it started bubbling.

And I was pregnant at the time and I was so mad. And we sealed it off and we got a new roof and we got it remediated. But I was like, why did they, you can't just cover that up.

Like it's affecting people's health. look for signs like bubbling paint. You know, you might, if you smell it, then it's really bad. Usually look under the sinks, you know, look for water stains on the ceiling.

So all of these can be early signs. And then if you see that and you're concerned, like how do you know what mold professional to go to? Like, how do you, what do you, what questions do you ask when you interview them and what signs to look for when they come over, give you an estimate?

So they should be able to answer some, hopefully they can answer some pretty basic questions. ah Some people though that I've heard will just, you know, all they know is hey, I buy this chemical and I spray it on the mold and that's about all they do.

They should be able to tell you why that mold is there, at least have a pretty good idea as to why it's there. So they should have a pretty good idea how a home is put together.

So they should also be able to tell you hey, if you have mold in your attic, it's more than likely due to, you know, one of these three reasons or a combination of these three reasons.

Same thing at a basement. If there's mold there, A, they should be able to find it, and B, they should be able to tell you why it's there or more than likely why it's there.

There's always reasons why mold grows. Mold's not just going to grow for no reason inside a home. Somebody that really knows what they're doing should be able to tell you why it's there and then tell you more than likely what happened to get it there.

They should also be telling you how to get rid of it, in my opinion, without using chemicals. And then they should also be able to tell you how to prevent it going forward, which is always going to be some sort of moisture control.

Yes, absolutely. Wow, that has been so helpful. And I want you guys to not be freaked out, but use this information and go in your home. If you think that there might be mold, reach out to John if you're local.

or someone else that can help you because this is a real problem. We think like 40 to 50 % of homes are water damaged. So we definitely need to, this can really impact your health.

mean, my kids had schools that had mold in it and it has really hurt their health. And we've had to do a lot to help that, but they will all get better.

And John, thank you for your important work that you do. And it is much needed to have someone as educated as you. Yeah, any anything else that you'd want to close with I do need you to tell everyone how they can find you.

So we are, we are just south of Ann Arbor. We cover down to Bowling Green, Ohio. We go deeper into Ohio to Cleveland and Cincinnati relatively frequently.

We go into the Northern areas of Indiana and close to Chicago. And then we go up to Frankenmuth, Michigan and out to Lansing as well. So our phone number is 734-439-8800.

And then you can also reach us. Our website is peaceofmindatmoldprollc.com, which will get you into our email and be able to send us an email. You can also look at our website.

We have a lot more information on our website as well too. We've done this uh for a long time and we do like to help people. It does give you a good feeling when you know, as you know well, when you can help somebody get feeling better, it's pretty gratifying work.

Yes, yeah, don't sleep on mold. Make sure you're paying attention to it. I completely. Thank you. Thank you so much, John, we appreciate it. Keep fighting the good fight.

Thank you. Thank you, Dr. Jentz. Thanks for the call. Thank you for tuning in to Dr. Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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