Introduction and podcast disclaimer

The seventh point is if you do get a concerning result, don't panic. That's when you reach out to those professionals, maybe get an inspector out, to find out the sources, why it's reoccurring and fix those problems.

Trying to do remediations without getting to the root cause of mold problems, which is generally moisture related. It's just wasting time and money. 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?

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Welcome to Mould Microtoxins and More. I'm your host, John Bodie, co-founder of the mold pros. Today we're going to do something a little bit different from our regular episodes.

Instead of having a health care provider or another environmental industry expert as a guest, we are going begin a series of episodes to discuss the different types of DYI mold tests that are available to consumers.

And we will start the series beginning with the HertzMe2 test. A mold testing method that's become incredibly popular in the mold illness community, especially among practitioners treating Chronic Inflammatory Response Syndrome, or SIRS for short.

But like any diagnostic tool, it has both its strengths and it some significant limitations. So we'll break down what this test is, how it works, we will break it down the pros, the cons, and also when it makes sense to use it.

So whether you're a homeowner, a patient, or a healthcare provider, this episode will help you make informed decisions about this testing options.

What HERTSMI-2 is and how it works

So, let's start with HERTSME2. What it stands for is, HERTsME 2 stands the health effects roster of type-specific formers of mycotoxins and inflammogens, second version.

That is a real mouthful. The test was developed by Dr. Richie Shoemaker, the physician who created the diagnostic criteria for Chronic Inflammatory Response Syndrome or SERS.

The tests analyzes dust samples from your home to detect DNA from five specific molds called the Big Five. Those Big 5 mold species are Aspergillus penicilloides, which is a xerophilic or dry-loving mold, that can thrive in environments that has higher humidity.

It doesn't need a lot of water to thrive. The second is another aspergillus species, it's Aspergilus versicolor, which is a xerophilic mold as well, and it produces some pretty potent mycotoxins.

the third mold on the list is Cotomium globesin, Which is hydrophilics or water-loving mold. that's commonly found in water damaged drywall and other water damage building materials.

The fourth species is Stachybotrys chartrum or what people oftentimes call black mold. It is also a hydrophilic mold similar to cotomium and it needs a lot of water to thrive.

So we're thinking water leaks, some pump failures, that sort of thing, storm damage, And the fifth is Willemia sedi, which is a very common outdoor mold.

It is also a dry loving or xerophilic mold, so the panel has five species, three are xerofilics or dry-loving molds, two are hydrophilics, or water loving molds.

The analytical method is MSQPCR, which stands for Mold-Specific Quantitative Polymerase Chain Reactions. That is a DNA technology similar to what's used in an EMA test or an ARMY test, if you're familiar with those.

But unlike an ERME test, the HERDS-B2 focuses only on those five. The ERMe test uses PCR and has 36 fungal species listed. What makes the Hertz B2 scoring methodology a little unique is that each mold is assigned a point total based upon the concentrations detected.

So these scores add up to a total Hertz-B2 score. And the ranges for those scores are put into three buckets. The first is below 10, which is considered generally safe for re-occupancy for service patients.

And then we have an above 15, which would indicate a significant problem, especially for sensitive individuals with SERS. And, then, we had this kind of gray area between 10 and 15 which requires additional investigation or assessment.

The sampling for HRSP-2, it's really pretty easy. It's simply a dust collection method. can collect it either with a vacuum canister or oftentimes sterile medical swabs are used, or even an electrostatic Swiffer comes in some of the kits from the labs.

So once you take your samples, you send it off to the lab. You get the results back usually within two weeks. If you need something quicker, I think most of labs will have an expedited service that you can pay more for to get results at a shorter amount of time.

So that's kind of overall what the Hertz B2 test is. Now let's tear into some of the strengths of a test and why it's so popular. First and foremost, I guess the number one strength is that it's really that expensive for a PCR test.

So you should pay less than $300 for the test, so it should be $100 or $150 less that a full army test so those that are on a tight budget, but you want the PCR sampling data, which is really sensitive type of sampling or analysis, it's a great price point for that.

The second strength of it is, really, what the test was designed for. It's designed or developed specifically for SIRS patients. So Dr. Shoemaker developed the scoring methodology based on over 1,000 ERMI tests correlated with patient outcomes.

So it's designed to specifically answer, is this building safe for someone recovering from SIRS? And according to Dr. Shoemaker, a HERTSME2 score below 10, those occupants had a 97% accuracy in predicting a safe reentry for SERS patients.

That's what the test is. It tells you, you know, if you're below that 10%, you have a high likelihood of recovery and going back into the home. The third strength for the test is since it's a dust collection, it can provide more of a historical view of what's occurred in the structure.

Bio aerosol or air sampling is simply a, you know, kind of snapshot in time, what is going on inside of the home. Whereas dust collections reflects, weeks, months, or maybe even years of exposure, depending upon where you collect that dust from.

And that dust actually acts like a time capsule of your indoor environment, capturing what's settled when mold spores released.

Strengths of HERTSMI-2 testing

And it can capture that even when you're outside of a sporulation cycle, because it kind of gives you that look back period. So that's something that all PCR dust sampling has as a strength.

I think the fourth strength of a hurts me too, is that it's really simple to interpret the data. Um, you know, an army test has 36 fungal species broken down into two categories.

And then you have to subtract category two from category one to get your total score. Well, it hurts. Me too. It gives you just one number to look at with clear benchmarks.

So you're looking for that total. Score ideally to be below a 10. You know on that army tests. Those are the pros or the strengths of the test. Now, let's dig into some of these cons or limitations of this test, and I think these are really important to understand.

Obviously, number one, it's a deep test in that its PCR gets down to the species level, but it is very limited. It only has five species, and certainly why the big five are important, they're not the only problematic molds that exist.

I'll give you an example. So, penicillium species can produce mycotoxins, you know, such as ochratoxin A, that's one of the most common mycotoxin found in humans with mold illness, but there isn't a penicellium specie on that panel.

Fusarium is lacking, trichoderma isn t on the panel, And also other penicillium species besides the two are not on that panel. One glaring omission is Aspergillus fumigatus.

And in my opinion, this is a major oversight of the test. Fumigatis is one of most common and dangerous Aspargilla species for human health, but it's not in the panel So there have been studies that show fumigotus can cause invasive aspergillosis in immunocompromised individuals.

In certain groups, that fumugotous can actually has a 20% mortality rate in certain populations. So that's a pretty significant mold, in my opinion. and it's estimated to affect about 4.8 million people worldwide with allergic brachial pulmonary aspergillosis, primarily in asthma or cystic fibrosis patients, and that can cause permanent airway damage.

And fumigotus can also produce microglycans, such as gliotoxins, which are an immunosuppressive mycotoxin. So you have the significant contamination through fumigatus that can pose serious health risks, especially for certain

individuals, you know, that are immunocompromised or asthmatic, et cetera.

And you can actually wind up with a very low Hertz B2 score because that species isn't on the list. It's not tested for. So a negative would be that the hurts me too could give you a false reassurance that there isn't a problem in your home when it's not looking for these other molds.

So that's that number one. Number two is the actual species listed on the panel. There's discussion around environmental professionals. Some have some serious concerns about three of the species on.

The panel Wallemia, for example, is primarily an outdoor mold. And elevated levels on your HERTSME2 test could actually just be a reflection of outdoor air filtration getting into the home and not necessarily will leave me a growth inside the hole.

But since there is an exterior baseline, it's really difficult to understand what's coming in through natural air exchange as part of the normal fungal ecology in your area versus what could be bold growth in the house.

Aspergillus penicilloides is a xerophilic mold, as we mentioned. It loves dry environments and it's pretty ubiquitous. Its found everywhere. Same thing.

Is it coming from outside the home or inside the house? And then you have aspergilus versicolor. Those spores, they kind of link up or chain together.

And so that test is going to measure the amount of DNA from an organism so One organism could be 10 spores or it could 100 spore. And so it's a common thought is that really on a hurts me too.

You're looking for two reliable indicators of water damage and that's going to be the cotomium and the saccabotrous molds. As we mentioned, those are hydrophilic molds that require a lot of.

Water in order to thrive, not just high humidity. 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, even microtoxins 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's 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. Another negative or con to the test is that it is a DNA test. And as with all DNA tests, it's going to tell you if mold DNA is present.

Limitations and blind spots of the test

it doesn' tell if that mold is viable or whether it means whether its alive or growing. So you could have a situation where there's dead mold from past problems that leave mold DNA in the dust for months or years.

And that high score doesn't really tell you if you have current problem or if it's just historical stuff that maybe got missed in their mediation process or, you know, the contamination issues since been resolved.

The EPA explicitly states that DNA tests measure the potential not definitive whether you have current mold

growth. So that's important to understand.

The fourth issue that can occur with, and this goes with any sort of dust collection sampling that hurts me to include it, is that the sampling methodology, how the samples taken can directly impact your results.

And it's really difficult to standardize that perfectly. I give you an example. So the amount of pressure you use whenever you're wiping the surface, the texture of the service being sampled.

If you are sampling from an area that hadn't been cleaned recently, those all create variability in that sample. Even so much as the surface, if you're sampling from a painted surface that can impact it, whether it's a high gloss paint versus a matte finish.

That can actually impact your sampling results. And if go to a sampling location that hadn't been cleaned regularly, we have a lot of people who would sample underneath the refrigerator.

Or maybe you sample from a bookshelf that's really high that, you know, doesn't get dusted frequently. Well, that can be problematic because it really introduces sampling bias.

Since these areas have settled mold spores that haven't been treated in a long time or cleaned in the long-time. So you really you're pulling up an accumulation of mold sports that have accumulated for years.

Not not what's truly ongoing inside the home. The fifth con for negative is that Sometimes folks will take a sample, a Hertz B2 sample to determine what's going on in their home.

And one sample doesn't really tell you the whole story. So a living room sample. Doesn't tell ya what is going your bedroom or your bathroom or maybe your basement.

It's surely not your HVAC system. Sometimes both problems are just localized. Treating one Hertz-B2 score as either a pass or a fail for your entire home is a mistake.

The sixth item that we would bring up is that it hurts me to test doesn't replace a professional inspection. So what you want to understand is, you know, we have the issue there.

So a HIRS-V2 test doesn't tell you what the moisture sources are. It certainly doesn' t do a visible inspection to find visible mold growth. Doesn't check inside your HVAC system.

I doesn t check the inside of walls. So, you know, I've seen over the years, homes that have a very low, hurts me to score, uh, they actually have visible mold growth in the bathroom or they may have water stains in this ceiling or have condensation problems.

Well, the test has missed it because the samples were either collected in a different location or it was, You know the mold, growth that we had was different from the five species that's listed on the hurts.

Me to test. The seventh issue or challenge with the HERTS-Me2 test is that it doesn't really detect mycotoxins. Even though the N in HERTs-me2 stands for mycotoxin, really all it's testing for is mold DNA only.

There is no mycoptoxin component of the testing analysis. And molds can produce varying mycotoxin amounts depending upon certain environmental conditions.

So if you're concerned with mycotoxins, there are other alternatives like an EMA test that actually can test for both the mold species using polymerase chain reaction, and will actually test from mycoptoxins to see if it's theirs.

If mycontoxine exposure is concerned, maybe the Hertz B2 is not for you. The other negative is actually tied to one of its strengths, that score. It's easy to understand what the score is.

As Dr. Shoemaker's studies have indicated, being below 10, not 100% are going to recover. And so these magic numbers, that below ten is safe and above 15 is dangerous, it comes from research and service patients who had already been diagnosed and treated.

And it doesn't cover or provide a lot of guidance for that tweener area, that 11, 12, 13, 14 bucket that oftentimes these results can fall into. So a tin may not be safe for an individual because that safe becomes highly individualized, you know, the reaction to the molens and the structure.

And number nine, there's limited peer review validation of the hurts me to test while it's based on research presented at conferences, really the peer view literature validating it.

The methodology is limited in mainstream journals. The primary validation comes from Dr. Shoemaker's own research and the clinical community that follow his protocols.

So that's the big, you know, the top nine. The last kind that I'll list is that it really shouldn't be used alone to determine the fungal ecology of a structure.

It should be used in combination with a professional visual inspection that includes a moisture assessment and includes an HVAC assessment, and also in conjunction with the patient's symptoms and a medical evaluation.

And then there's most likely should be additional testing that's required, whether it's intra cavity sampling, mycotoxin sampling direct microscopy sampling other types of sampling protocols.

So making a major decision based solely on the hurts me to could be a really risky proposition. Given all these pros and cons, there are times when it hurts.

Me to test makes sense. I would say that the best use cases for HerbSpring II, number one, is going to be as a post-remediation verification for a CSRS patient.

So after the remediation has been done and you're a service patient, going in and understanding whether the big five have been addressed is pretty important.

If you're going to do that, we have some recommendations on how that should be done. So you don't want to come in the day after the remediation and do a post-test.

You want wait for about two weeks to allow enough dust to re-accumulate. That way you have a valid sample. And where you sample, as we talked about, is pretty important.

We recommend if you a central heat and air system, Sample from your HVAC filter. Make sure that a new filter was installed right after the remediation, but sample from that HvAC Filter.

What this does is it not only gives you a good understanding of what the inhalation risk is of the occupants, But it can also eliminate some of that dust sampling bias that comes along with sampling in certain locations.

Generally, your return is going to pull air from all over the house and will capture a lot of So if you're working with a Sears knowledgeable practitioner and you've been diagnosed with SIRS, the HRSP-2 was specifically designed for that situation and help you make those use as a guideline for re-occupancy.

The second scenario is if you're budget conscious and your resources are very limited, but you still want that PCR data to kind of start with. As long as you understand you are getting limited information, it's a very narrow test, then you can use it for that.

But there are, in my opinion, some better alternatives. So let's cover some of that So big fan of polymerase chain reaction analysis. It's the most sensitive that's out there.

All PCR tests have some limitations, but if you're going to get a Hertz Me2, maybe spend a little bit extra money and get the ERMI panel. So it shouldn't cost you that much more.

Instead of only five species, you wind up getting a panel of 36 species. And you can actually get Hertz me to score if your looking for that information.

from your ERMI results. There are several calculators online that can help you out once you plug in your numbers and they'll get you that that hurts me to score.

Another great DIY option is that if you're concerned, as I mentioned, with microtoxin exposure, again, it's a little bit more money than a hurts-me-too, but get that environmental mold and microtoxin testing so it will have that PCR component It'll narrow down to usually just toxigenic or pathogenic species of molds.

And then it actually tests for the microtoxins themselves. If you have a clinical mycotoxin test you've done through your healthcare provider, you can kind of match those two things up.

When HERTSMI-2 makes sense to use

What's going on in the home, what's gone on the body. So that's it. That's a great DIY test to run. Thirdly, if you're going to. With the hurts me too.

The why is so important, and especially if you have a health concern. So we'd recommend getting a qualified indoor environmental professional to do a thorough inspection in the home from a moisture standpoint.

They can oftentimes Not only do a moisture assessment from the exterior of the home, interior of home. Inspect the attic, inspect the basement, inspected crawl spaces.

But also if they say, Hey, listen, there's some additional tests that we'd recommend to help identify really what's going on in your structure. They can do that.

That's what they're trained to do. And that's why you're paying them for. Um, and the fourth is kind of a combination of all those things. So. Get a good visual inspection, get a moisture assessment, and get that tardy inspection.

We believe that it's going to be multiple testing types that provide the best overall understanding of the fungal oncology of this structure. So it could be PCR as a portion of that.

Like I said, it creates analytical methods. Also it can be some intracavity samples. It can surface samples if we see suspected microbial growth. inside the structure.

So don't rely strictly on just one test to make a big decision on your health or on you home. Having said that, if you've said, okay, a Hertz B2 is the best test for me, I will give you eight actual points or items to get the The first point is do a visual inspection first.

So look for water stains, smell for musty odors, look from visible signs of mold and underneath sinks and bathrooms and wet areas. Look for signs a water damage and condensation.

If you find the obvious problem, fix those first, then go back and do your testing afterwards after everything's been been remediated. The second thing, understand your limitations.

The test is designed to tell you what's going on with these five fungal species. in the specific area that you've sampled. Nothing more. So just understand that.

And then when you decide to sample, make sure that have a good sampling strategy. Sample where you spend most of your time. That's going to be where the majority of exposure is.

As I mentioned, if you have an HVAC filter, that is a great place to simple for any kind of PCR sampling. And the fourth item, when you get your results, interpret those results in context.

So remember, a low score doesn't necessarily guarantee safety. And a high score, doesn' necessarily mean that you've cut an immediate crisis. So look at the specific molds that are elevated, not just the totals, and consider your symptoms and your individual sensitivities.

And then that leads us to the fifth point. Work with a professional. So get a certified mold inspector or remedier involved to help you with the data.

Get your healthcare provider involved, as long as they're knowledgeable about environmental illness and certainly chronic inflammatory response syndrome.

The sixth thing we see this happen is don't test too soon. Like I said, don' test right after your remediation. You need to wait for at least two weeks.

Let that dust accumulate. Otherwise you're going to get a false negative and think that you are resolved when you may not be. The seventh point is, if you do get a concerning result, don't panic.

That's when you reach out to those professionals, maybe get an inspector out, to find out the sources, why it's reoccurring, and fix those problems. Trying to do remediations without getting to the root cause of mold problems, which is generally moisture related, is just wasting time and money.

So we'd always recommend that you to that. And eighth and finally, if you get low results but have symptoms, remember a low score doesn't necessarily rule out an overall mold problem.

It just means that those five species are low. So it could be that you have issues with molds that aren't on the panel because it's so limited. Or it could be that you have species or problems with those five species and areas that didn't sample.

So that could an issue. Or could actually be you don't have a mold problem. And maybe if you still have ongoing health issues, it can be bacterially related or it be VOCs or multiple organic compounds.

Best practices and final takeaways

It also could also be your current situation. Your health concerns aren't related to the house that you're in now. It could be work or it could, it can be somewhere else.

So don't let us low score stop from, stop you from further investigations if your systems are persistent. so let's wrap up with a few essential points on hurts me to testing.

Really the bottom line, the Hertz B2 test, it is a useful tool for those that are under the care of a practitioner that is following Dr. Shoemaker's protocol strictly.

It's one piece of data puzzle. it's not always the definitive answer. It is cost-effective method for screening and it really designed for helping service patients understand should they reoccupy their home.

So those are the strengths. If it falls short, it fall short because it's limited. There's a lot of species missing. It doesn't test for mycotoxins. it doesn' replace a professional inspection to understand the why, the where, there could be problems.

And it could give you a false sense of security or raise flags kind of unnecessarily. So in my professional opinion, there are a couple other tests which may provide more information.

If you are able to spend a little bit more money, as we talked about, take a look at the army test. At least you get 36

species as opposed to the herdsby two, and you can still calculate the score yourself.

And then get yourself a professional inspector to help out with moisture mapping and that sort of thing. They have tools that you may not have, like infrared thermography, moisture meters, hygrometers, borescopes, to really do a thorough investigation that most homeowners simply can't do.

So those are some things that she can do, a HRMSME 2, it can provide some really good data, especially if you're a service patient, just understand that it has those limitations.

Most importantly, no single test tells you if your home is making you sick. That's where that good assessment comes in into place. Test appropriately, moisten your investigations, talk with your healthcare provider, and follow professional remediation protocols.

So, final thoughts. We understand that working with mold issues, it can really be overwhelming, especially when there's health issues going on. And there is a lot of conflicting information about what to do, what not to, do what the best testing options are, and all of them seem to offer simple answers.

It's just not always that simple. The Hertz B2 test is neither a magic bullet nor is it a scam. It's a legitimate tool with a specific application with real limit.

So use it wisely and in combination with other methodologies and always seek medical or guidance from your medical provider or your IEP. So whether you're a homeowner, a patient, or a healthcare provider, understanding what this test can do and what it can't do will help you make the best decision for indoor air quality in your health.

So I know that's a lot of information. Hopefully it's helpful. That's it for today's episode of Mold, Bicotoxins, and More. I hope the deep dive has given you a lotta information around HertzMeToo tests that helps you to make best decisions for you and your family and environment.

If you have questions about mold testing or indoor air quality or environmental illness, we'd love to hear from you. If you're a healthcare provider working with mold-sensitive patients, we're always happy to discuss how we can support your patient's needs.

So check us out at www.themoldpros.com or email us at info at themoldpos. com. And don't forget to subscribe to this podcast so you don' miss future episodes and make sure to leave us a review.

We'll continue exploring the science of mold, mycotoxins, and environmental health. Until next time, Breathe easy and stay healthy. Thank you. You've been listening to Mold Microtoxins 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.