
Biotoxic Mold illness and Proper remediation

Health Centers of the Future, LLC

Over a lifetime of seeing clients with a multitude of complex and often bewildering symptoms, I can honestly say that there are always toxic exposures that have played a role in their illness patterns. I call them the three amigos, the big boys: heavy metals, hidden infections and mold. These are not your average toxins. They can knock you down fast and can lead to major discomfort, neurodegenerative and autoimmune diseases, and unexplainable illnesses. Those of you who have heard my Cellular Healing TV podcast (or watched on YouTube) know one of my cornerstones of health is finding the root causes of health challenges (R:1 see article in your resource section). And for countless patients, they have been or are currently being exposed to many things, including mold spores, and many times unknowingly.

To be clear, I am not referring to a mold allergy. I am talking about biotoxic illness: biotoxins that are created from toxic mold spores. And these biotoxins make people very, very sick.

MOLD: MYTH OR REALITY?

Mold identification and remediation (removing mold safely) are very tricky subjects, and ones I have been researching for many years. When I lived in the Pittsburgh area, I was fortunate to meet a gentleman who is an expert in identifying mold damage. Dan Howard is the founder of Howard Testing and Inspections, LLC, which is Pittsburgh's premier mold and environmental firm.

Dan is nationally recognized as an instructor and lecturer. He's taught lectures for members for each of the three largest home inspection associations and has taught classes nationally and internationally. I interviewed Dan because he is a wealth of information regarding mold identification and remediation. Much of the information contained in this article is based on his informative interview, which you can watch on YouTube (Cellular Healing TV Episode 93).

When faced with the idea of having a mold problem in their home, I find some people get very uptight. Their knee jerk reaction is they don't see or smell any mold so, therefore, they must not have a mold problem. But many times, mold is hiding in undiscovered places. Also, many people use plug-ins that deodorize their home using a toxic chemical called formaldehyde, which can mask the musty smell of mold growth. So even if they do have mold growing, they can't smell it. Even worse, deodorizing plug-ins contain up to 6 different neurotoxins that can fry your brain cells, so never use any kind of home or car deodorizers (read more in the Detox Your Life article in the resources section).

WHERE TO START?

If you suspect a mold problem, where do you start in the process of mold identification? First rule is that you need to hire a company that does mold identification only and not mold remediation. That way you get a party that is not biased. Once identified, you need to find a company that understands proper remediation and problem solving.

IS MOLD ONLY PRESENT IN DAMP CLIMATES?

When we look at the floods caused by Hurricane Katrina, it is obvious how mold growth proliferated. Houses got flooded with water and to complicate matters, the water was contaminated with sewage, and that is perfect mold food. Also, other virulent pathogens were present in the sewage, causing a different set of molds than you would normally find in a wet place. A mold nightmare.

As Dan points out, some of the worst areas for mold are Texas and Florida because of the wet and humid climates. But what about condos, homes and apartments in drier weather areas? Or what about new homes? How could they possibly have mold? Dan had many clients over the years that moved into a new home, only to get sick shortly afterwards being forced to vacate within 1-2 weeks.

I LIVE IN A NEW HOME: AM I SAFE?

Ironically so, Erin Brockovich built a brand new home and got sick from chemical exposures. She exposed the whole chemical company and saved a lot of lives. Many of us would never think that building materials used in construction might contain very dangerous chemicals. When building a new home, it is best to search out companies that do not use toxic building materials.

One of my docs had a patient that built a home from scratch because she had been exposed to toxic mold in a previous home. But, unbeknownst to her, the air conditioning unit had faulty circulation, and there was toxic mold buildup in the air ducts that went unidentified.

Another consideration with new home construction is the wood. The builder must make sure they are using dry wood. Many times, builders will use wood carrying too much moisture from rain exposure, and when sealed, it mold forms.

HOW MOLD GROWS

Homes built right now are different from the construction of yesteryear. Today, we insulate our houses to make them airtight. We seal them up and there is no adequate air circulation. In fact, many experts say that we are over-insulating to better control the temperature.

And add to that all the other chemicals that are present in building materials, and we have a major off-gassing challenge for years. Off-gassing means that certain toxic gases coming from formaldehyde or other toxic chemicals are able to continue to permeate the inside air. We go home, close the door and are sitting ducks, living in this toxic soup of bad air and chemicals. Add to the building materials dry wall, and with a bit of moisture build up, dry wall becomes mold food.

And of course, there are our basements. You must continually check for leaks, humidity build up, and water accumulation. One thing we know for sure: if you have water in your basement, you have mold. Therefore, it is very important to have a humidity meter, especially if you live in an environment that is very humid, or you live in a place where it is cold. During the winter, or steamy summer months, because of a lack of air circulation humidity may be rising. If your humidity meter is above 45, you will likely have a mold problem.

AIR CONDITIONERS

There are other factors contributing to mold build up. Take air conditioners for instance. Dan said that if you change your air conditioner and buy an oversized one for extra cool down effects, this oversized unit runs a shorter time. He explained, "Water in the ductwork in the basement will condense just like the ice water on the 4th of July, and leaks through, and gets your drywall, walls and your ceilings in your basement...If the oversized unit is on the rooftop, it could be that it's just a humid day, and that's where it collects. Then you have a little bit of dirt because there's always dirt in ductwork, and bingo-bango, you have the perfect mold food... installers think they are doing you a favor by putting something in so you're never going to be hot. They just don't know they are putting you and your family at risk." Bottom line: too much condensation in the air- conditioning ducts can turn to mold.

NEW FURNACES and INSULATION:

Dan said that if you put in a new furnace and don't take care of venting a gas hot water tank correctly, you could have water vapor that doesn't leave, which can cause mold growth on the ceiling above the hot water tank. So when you put in a new furnace, you need to put in a smaller vent to accommodate the lower heat of the hot water. It's all about proper installation.

Also, if you stuff too much insulation in the attic so water vapor can't leave, you will have a mold problem. As you can see, this is a very complicated subject.

HOW DO WE KNOW WE HAVE MOLD?

Most folks think that if you have a mold problem, you will see it growing everywhere, but many times that is not the case. Also if you have been living in your home for a long time, you may not even notice a moldy or musty smell. Dan points out that the easiest and least expensive way to identify mold is with air samples, by testing for mold spores circulating in the air.

TOXIC MOLDS THAT ARE DANGEROUS

When most people think of mold, they think of what surrounds the caulking in their shower or kitchen sink. But there are many kinds of mold that are dangerous and toxic to the human body. Names like *Stachybotrys* and *Aspergillus* are but a few toxic black molds that can be lethal.

Stachybotrys is a virulent and very dangerous toxic black mold. The trichothecene mycotoxins produced by *Stachybotrys* are neurotoxic, meaning they can cross the blood brain barrier and kill brain neurons. With exposure, symptoms may include brain fog and mental confusion, extreme respiratory issues, circulatory problems, tremors, bleeding, vision challenges, immune system suppression and a myriad of other health challenges. And continued *Stachybotrys* exposure can prove lethal. In fact, with serious *Stachybotrys* infestations, houses and their contents had to be burnt to the ground because the mold spores were so dangerous.

Aspergillus is another toxic mold that is a big threat to our well-being. In Pittsburgh, they recently shut down one of the country's best transplant programs because *Aspergillus* was present in the intensive care unit for post surgery, and people were dying from the exposure. When you are on an immunosuppressant drug, *Aspergillus* grows in your lungs very easily. Exposure can cause multiple symptoms, including fever and chills, blood streaked sputum from the lungs (hemoptysis) and/ or severe bleeding from the lungs, shortness of breath, chest pain, joint pain, headaches, eye problems, nose bleeding and facial swelling.

One of Dan's customers had Multiple Sclerosis (MS) and he noticed that her condition was quickly deteriorating. It turned out that she was living in a house that was infested with a dangerous mold called *Chaetomium*. This mold can either trigger or aggravate MS!

TESTING

If your symptoms are such that your qualified health care professional suspects mold, what tests can be performed? Dan likes a test called ERM1, because it shows a great history of what's going on in the home, and because you're collecting the dust, it's not just what's in the air today. It's what you've been exposed to over the last couple years.

Testing for *Stachybotrys* is much more tricky. It hides behind walls and produces very few spores. But how do you see behind the walls? And which walls do you check? Dan says, "...One of the tools we can use is an infrared camera that....."

can sometimes tell us where there's an accumulation of moisture or high humidity and then we have a better chance of identifying *Stachybotrys*.... ”

A good solution is cutting the floor the height of the baseboard, and then you pull that behind, and that's usually a pretty good indicator of which wall you need to check. Just last week, Dan was checking a bathtub area. He said, “The builders had just closed it off with drywall. We got little tubes. With a 3/8-inch hole, we shoved the tube in and actually got a sample that was behind the wall. That test works really well.”

MOLD REMEDIATION

As a reminder, once you have identified the mold species, now you have to find a reputable company that can remediate without causing more harm and illness. One of my doc's clients had *Stachybotrys* growing in behind the kitchen walls of her rent-controlled apartment in Santa Monica, CA. She didn't smell or see anything until maintenance came to fix something in her kitchen. Unbeknownst to her, there was *Stachybotrys* behind her kitchen walls.

Unfortunately, the building owner did not hire a company to do proper remediation. After botching the job, she was hit with a mighty exposure. She returned to her apartment only to be exposed to a massive amount of unseen *Stachybotrys* spores. As she entered her apartment, she felt like her skin was on fire. She had to flee immediately, was forced to leave behind all of her possessions, and she suffered from debilitating health challenges for years.

The most important thing to remember is that the treatment must match the need and has to address the following: where the mold is located and why it is present in the first place. In other words, you have to have a company that can identify the root causes of why mold is growing in your home. It is not good enough to get rid of the mold, even if it is a safe removal. You must change the conditions in order for the mold not to grow back.

This is just like identifying the root causes of disease. I continually refer to what I call R1: removing the source of toxins (read R1 in your articles section). You have to remove the sources that have bio-accumulated in the body or you are never going to get well. And it is impossible to get well if you're living in a moldy home.

We have to be careful about what company we hire. Dan points out that there are companies that come to your home and do what he calls “spray and pray.” They are less expensive and very tempting to hire. They might use only one coat of a peroxide-based chemical. That chemical might do the trick in the short-term, but unfortunately, they are not addressing the underlying issues of why you have mold in the first place.

In addition, you must make sure you get deep enough because mold roots can get right into a cement block and then travel into the wood. If you douse it with Clorox on the outside, you have made the problem worse, because Clorox goes deep and feeds the mold roots. While you killed the mold on the outside, it will come back with a vengeance later.

I have also seen some folks come up with their own mold concoctions, but they end up creating chemical sensitivities in their body because their chemical concoctions were so toxic. You've been warned: don't try to remediate by yourself.

MUST CREATE GOOD CONTAINMENT

The reason why some people feel worse after mold remediation is because it wasn't done correctly from the beginning. You must have good containment. Proper containment starts by putting up plastic walls. Then tubes are inserted to draw air outside, creating a negative pressure, so the biotoxins don't end up in the HVAC (air conditioning unit) and throughout your entire home.

If you don't set up proper containment before you start to remediate mold, it is like blowing on a dandelion: the white fuzzies go everywhere. This is what happens when you remove mold. You do not want those mold spores landing on your furniture or circulating freely throughout your home.

The company you hire must follow certain steps. First step is containment, second step is negative air pressure, and third step is air scrubbing. It is best to interview the company you are about to hire to make sure they take these safety precautions.

Also, they should inspect your front and back yard. You might need a French drain (a gravel-filled trench that includes a perforated or slotted pipe). These drains are used to direct surface water or groundwater away from a specific area, such as a home's foundation. Dan says, "Some companies are using a sealed French drain system. They seal the top, and put an exhaust system into this so that the moisture and mold spores go outside, instead of going into the house..."

Remember, they are not just removing the mold, but should be evaluating your home and property to see where the problems originate. They should also look at your gutters and make sure the caulking around your home is not old and cracking.

A GOOD SOURCE FOR MOLD REMEDIATION

Green Home Solutions is a franchise system, and their training is very good. Their approach is to clean up the mold safely and figure out where it is coming from so the mold doesn't come back.

HOMES FILLED WITH TOXINS

The big challenge with many people who are not getting better is that they're in an environment that has too many toxins (read more in the Detox Your Life article in the resources section). And again, it can be a number of toxins that are present and causing widespread inflammation (R:4).

For instance, if you put in a new hardwood floor and it is not cured properly, it can off-gas formaldehyde. Also, there is a lot of formaldehyde in home insulation, and this chemical will continue to permeate your home for years. Then our toxic bucket fills up, and the body can no longer tolerate the overwhelming amounts of toxins, mold spores, or chemicals contained in the building materials in our homes.

If you leave your home and go on vacation and you feel better, that is a clue that your home needs to be evaluated. Or if you go to work and feel worse at the end of the day, that may be an indication that you are working in a sick building.

It is so easy to go into denial that it could be your home that is making you sick, but we have to open up to this possibility.

WHAT TO DO WHEN EXPOSED

But what if you are the only one that has symptoms? In a family of 5, if you are the only one affected, it can be very confusing. The sick family member can't figure out why they are the only one with symptoms. Or there may be one person working in the home and one person working outside the home, and the person affected is the one at home. Many times, no one makes that correlation. But here is the hidden problem. If you are among the 24% of the population who can't develop antigens against mold, you will be left with major symptoms.

The question is, how full is your bucket of chemical stressors? The problem is the sum of all your exposures, and many times it just takes one more toxin or stress factor to throw your body over the edge. I call this the perfect storm. And does that perfect

storm turn on certain genes? Absolutely. I believe that genes are triggered and turned on (R:5). And it translates into many confusing symptoms if you don't understand how to trace the root causes of disease.

Where do we start when we are exposed? I look to two products from Systemic Formulas, GCell and Bind. GCell raises intracellular glutathione, which is how your body naturally gets rid of toxins. GCell also down-regulates inflammation. Biotoxins from mold make their way into the liver, bind up to bile, and the bile's reabsorbed, and keeps recirculating throughout your body, day after day. Bind pulls the biotoxins out of the bile complex. Adding CytoDetox™ is going to be critical in binding those biotoxins.

Unfortunately, mold exposure is more widespread than we can ever imagine, and it may be making you and your family sick. But again, if you don't follow proper steps and procedures to rid your home of mold, the problem will get worse. Thank you Dan Howard, for providing us excellent information that I believe will save lives.