



MHC Mold Help Center

Mold Exposure

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ADVERSE HEALTH AFFECTS FROM MOLD

Story at-a-glance

- The vast majority of people suffering from chronic respiratory infections are not aware that their problem is related to mold exposure. And unfortunately, their physicians are also unaware, making appropriate treatment impossible.
- All molds have the potential to cause ill health, depending on their type, whether or not they produce toxins, how long you are exposed, and your overall health and resistance to infection.
- In addition to minor or major respiratory problems, molds can also cause a multitude of other problems, including skin rashes, gastrointestinal problems, genitourinary problems, immunosuppression, and hemorrhage.
- The most common places for indoor mold to take hold are bathrooms and kitchens, behind or under appliances, around windows, in basements, or in any other damp area.
- In addition to consulting a professional "mold remediator," a high-quality air purifier may help reduce your exposure to mold toxins.

Mold pollution is a key element of indoor air pollution that few people understand. Mold has been making the headlines more frequently over the last several years, largely as a result of Hurricane Katrina. And this year has brought enormous record-breaking floods in the U.S. not seen in more than a century, including the massive overflow of the Mississippi River, certain to activate serious mold infestations in certain areas of the country.

If you live in one of those water-stricken areas, you could already be "sleeping with the enemy."

Along with obvious places such as shower stalls and damp basements, there can be many hidden sources of mold in your home. Particularly, if you've had plumbing problems or leaks in your roof, mold may grow and release spores from places such as behind drywall, under carpet or carpet padding, or in wood.

But mold can find its way into some rather surprising places. One study found that even Christmas trees can breed [mold](#), quietly releasing millions of spores into the room and causing winter allergies and asthma attacks. The study found that indoor air quality dropped six-fold over the 14 days a Christmas tree typically decorates a room. Millions of mold spores may even be hiding in your pillows.

And, surprisingly, if you live in a dry climate you may be even MORE at risk—mold grows routinely in desert regions, and the desert naturally selects the most tenacious forms.

Mold Can Be Deadly

What many people don't realize is that mold can make you extremely sick, or even kill you. According to the Environmental Protection Agency (EPA), **all molds have the potential to cause ill health**. The type and severity of your symptoms depend, in part, on the types of mold present, the extent of your exposure, your age and general health, and your existing sensitivities or allergies.

At a 2003 environmental medicine symposium in Dallas, studies of more than 1,600 patients suffering health issues related to fungal exposure were presented. These patients experienced major medical problems, including the following:

- Muscle and joint pain
- Headache, anxiety, depression, memory loss, and visual disturbances
- Immune system disturbances and fatigue
- GI problems
- Shortness of breath

Yet, medical professionals are sometimes not up to speed on how extensive and devastating mold can be to human health, often missing important biological clues that you're being affected by mold. It is important to be aware of these potential problems because your physician may NOT be, and you need to take the wheel as your own health advocate.

Mold's Favorite Places in Your Home

Fungi grow by releasing reproductive cells (spores) into the air, just as plants reproduce by spreading seeds. The airborne spores are invisible to the naked eye, which is a major reason mold is such a problem. It is not uncommon to find hundreds or even thousands of mold spores per cubic foot of indoor air. Spores are extremely small (1-100 microns)—20 million spores would fit on a postage stamp.

Spores can survive harsh environmental conditions, *such as dryness*, that do not support normal mold growth. In fact, many spores can lie dormant for decades until favorable conditions allow them to spring back to life.

Molds can be found almost anywhere; they can grow on virtually any substance, provided moisture and oxygen are present. There are molds that can grow on wood, paper, carpet, tile, sheetrock, insulation, leather, fabrics, and foods. Molds survive by digesting whatever substrate they are growing on, which is a real problem when it happens to be your floorboards. There is no way to eliminate all mold and mold spores from your indoor environment; the only way to control indoor mold growth is to control moisture. The most common indoor places for mold to take hold are damp areas, such as:

NOTE: All Molds, especially the more toxic type like *Aspergillus Flavus*, *A. Niger* and *Aspergillus Versicolor* are Not Always Black like *Stachybotrys Chartarum*, *Chaetomium Globosum* etc. But have severe Health Affects and Produce Mycotoxin. "MOLD Poison".

- Bathrooms and kitchens, especially under sinks—particularly leaky ones.
- Behind or under appliances that hide slow plumbing leaks (refrigerators, dishwashers, washing machines, etc.)
- Roof leaks.
- Around windows where condensation collects.
- High humidity areas of your home, such as Basements and Crawl-Spaces.

Often, the first sign of a mold problem is a "musty" odor. You are probably familiar with the smell of mildew—mildew is simply a variety of mold. You could also notice bowed or buckled floorboards, discolored carpet, a new water stain on your wall, or black or white specks—all signs you could be developing a mold problem. But what type of life form is mold?

Types of Fungus Among Us

Mold is a type of fungus, as are [mushrooms](#) and yeast. There are between 100,000 and 400,000 types of fungi (estimates vary), and of these, scientists have identified more than 1,000 types of mold growing inside houses across America.² Molds are classified into three groups according to human responses:

- **Allergenic Molds:** These don't usually produce life-threatening effects and are most problematic if you are allergic or asthmatic. The challenge is in figuring out what you are sensitive to. Children are particularly susceptible to [mold allergies](#).
- **Pathogenic Molds:** These produce some sort of infection, which is of particular concern if your immune system is suppressed. They can cause hypersensitivity pneumonitis, an acute response resembling bacterial pneumonia. An example is *Aspergillus fumigatus*, which can grow in the lungs of immune-compromised individuals.
- **Toxigenic Molds (aka "toxic molds"):** These dangerous molds produce mycotoxins, which can have serious health effects on almost anyone. Possible reactions include immunosuppression and cancer. Mycotoxins are chemical toxins present within or on the surface of the mold spore, which you then unwittingly inhale, ingest, or touch. An example of this is aflatoxin, one of the most potent carcinogens known to mankind. Aflatoxin grows on peanuts and grains, and on some other foods.

The five most common indoor mold varieties are:³

- ***Alternaria*:** Commonly found in your nose, mouth, and upper respiratory tract; can cause allergic responses
- ***Aspergillus*:**⁴ Usually found in warm, extremely damp climates, and a common occupant of house dust; produces mycotoxins; can cause lung infections (aspergillosis⁵)
- ***Cladosporium*:** This very common outdoor fungus can find its way indoors to grow on textiles, wood and other damp, porous materials; triggers hay fever and asthma symptoms
- ***Penicillium*:** Very common species found on wallpaper, decaying fabrics, carpet, and fiberglass duct insulation; known for causing allergies and asthma; some species produce mycotoxins, one being the common antibiotic penicillin
- ***Stachybotrys*:**⁶ Extremely toxic "black mold" that produces mycotoxins that can cause serious breathing difficulties and bleeding of the lungs, among other health problems; thankfully, less common in homes than the other four, but not rare; found on wood or paper (cellulose products), but NOT on concrete, linoleum or tile

Mycotoxins: From Antibiotics to Biological Warfare Agents

Molds produce a number of powerful substances that can affect your health in beneficial or detrimental ways. It should come as no surprise that fungi produce potent biologically active compounds—after all, lysergic acid (the parent compound of LSD) is produced by a mushroom! And penicillin is a mycotoxin produced by the mold *Penicillium*, better known as an antibiotic.

Some mold compounds are volatile and released directly into the air, known as microbial volatile organic compounds (mVOCs).⁷ Fragments of the cell walls of molds (glucans) can also be inhaled and cause inflammatory respiratory reactions, including a flu-like illness called Organic Dust Toxic Syndrome (ODTS).

But the most serious danger comes from highly poisonous agents called mycotoxins.

More than 200 mycotoxins have been identified from common molds. Mycotoxins interfere with RNA synthesis and may cause DNA damage.⁸ The mycotoxins that have probably received the most attention by researchers are the trichothecenes, produced by *Stachybotrys chartarum* and *Aspergillus versicolor*. Mycotoxins, even in minute quantities, are lipid-soluble and readily absorbed by your intestinal lining, airways, and skin. Some are so poisonous that they have been studied and developed as biological warfare agents⁹ as far back as the 1940s. Aflatoxin and trichothecenes¹⁰ are prime examples.

Even spores that are no longer able to reproduce can still harm your health due to these mycotoxins—in other words, "dead" mold spores are every bit as dangerous as "live" ones. The spores do not produce the toxins—rather, it is thought that the toxins are produced when the spores are produced, by the mold colony. Scientists believe that mycotoxins are the organism's way of holding a competitive edge by defeating other organisms that are trying to thrive in the same environment—like humans, for example.

Adverse Health Effects from Mold

A lot of people end up treating the symptoms of mold exposure and never get to the root of the problem. Oftentimes, they don't even make the connection that mold is the cause of their problems... and neither does their physician. According to mycotoxin expert Dr. Harriet Ammann,¹¹ exposure to indoor molds can damage the systems of your body in the following ways:

Vascular: blood vessel fragility, hemorrhage from tissues or lungs	Digestive: diarrhea, vomiting, hemorrhage, liver damage, fibrosis, and necrosis
Respiratory: trouble breathing, bleeding from lungs	Neurological: tremors, loss of coordination, headaches, depression, ¹² multiple sclerosis
Skin: rashes, burning, sloughing, photosensitivity	Urinary: kidney toxicity
Reproductive: infertility, changes in reproductive cycles	Immune: Immunosuppression

One of the challenges of diagnosing a mold allergy is that reactions are so variable from one person to another. Some people start having memory problems, while others may experience sudden changes in disposition, such as agitation, anger, panic, or depression. Headaches are common but don't affect everyone exposed to mold.

Common symptoms are:

- Coughing and wheezing
- Sinus problems and post-nasal drip
- Itchy rashes
- Joint pain

If you would like more information about how to recognize a mold reaction and how to read your own body's "silent alarm system," I highly recommend listening to my [interview with Dr. Doris Rapp](#). Dr. Rapp is a mold expert and author of several books, including *Our Toxic World: A Wake Up Call*.¹³

What You Don't Know CAN Hurt You: The Billings Story

Kurt and Lee Ann Billings learned the hard way about the damaging health effects of mold—and the level of ignorance about mold's effects by medical professionals. Living in a home in the outer impact zone of Hurricane Katrina, they suffered a progressive array of symptoms for which their physicians had no solution. They later discovered that their illness was due to mold infestation in their home.

What started as tightness and burning in their chests and itchy eyes soon progressed into severely diminished lung capacity that did not resolve, despite moving out of their home. After extensive research and eventually recovering their health, they wrote the book *Mold: The War Within*¹⁴ in hopes of educating a poorly informed and disadvantaged public.

On page 11, they write:

"It appears, based on our experiences and research, that much of the medical community is stuck in a time warp when it comes to fungal illnesses—even in regard to the notably researched and highly publicized condition of fungal-induced sinusitis."

What they are referring to is research done by the Mayo Clinic in the 1990s that strongly suggests NEARLY ALL chronic sinusitis (inflammation of the membranes of your nose and sinus cavities) is caused by [fungi](#), but blamed on bacteria—then mistreated using antibiotics. The findings were published in 1999 in two peer-reviewed journals, *Journal of Allergy and Clinical Immunology* and *Mayo Clinic Proceedings*.¹⁵ Yet, the Billings report that most physicians are unaware of this study, or at least of its significance.

A 1999 Mayo Clinic press release stated:¹⁶

"Mayo Clinic researchers say they have found the cause of most chronic sinus infections—an immune system response to fungus."

The Mayo Clinic study suggests that 96 percent of the people who suffer from chronic sinusitis are "fungal sensitized," meaning they have immune responses triggered by inhaled fungal organisms.

According to Billings, 37 million people in the U.S. suffer from chronic sinusitis, and its incidence has been increasing over the past decade. Yet, most physicians continue to believe that fungi are an

uncommon cause of respiratory infections, accounting for less than 10 percent. Furthermore, in most cases, antibiotics are not effective for chronic sinusitis because they target bacteria, NOT fungi.

Antibiotics and steroids can actually worsen fungal-related infections by destroying your body's natural biological terrain, creating an internal incubation ground for fungi.

This points to an enormous number of chronic sinus infections that are being misdiagnosed and mistreated!

The bottom line in all of this is, if you have chronic sinusitis, you **MUST** approach it from the perspective of a fungal infection, not a bacterial infection, even if it means having to educate your healthcare provider. A good place to start is by sharing the Mayo Clinic study referenced above. *Mold: The War Within*¹⁷ is also a useful resource for you and your physician (you can read a review by NORMI here,¹⁸ the National Organization of Remediators and Mold Inspectors).

What to Do Once You've Established That Mold Is a Problem

Mold spores are very difficult to destroy, even with cleaning agents, such as hot water or bleach (which is itself toxic). The best way to reduce the problem is through smart preventive measures.

First and foremost you want to Identify and Repair or Remove the Source & Cause of Water or Moisture. Second contact the www.TheMoldHelpcenter.com who will help you locate and Speak to a Licensed Professional in your area to provide an Inspection, Mold Testing and Mold Assessment. With this information decisions can be made regarding next steps and removal.

"I've seen people try to stay in a moldy house when their child is very sick or they are very sick. They try to clean the place up. They take out the moldy carpet and decide to paint the moldy walls. But they can become so desperately ill that it is very hard to treat them in the future."

- **Get tested for Mycotoxins.** In addition to the mold in your Home, you need to make sure you get rid of any toxins in your body. When a mold breaks down, it disintegrates, and every little particle may contain mycotoxins that have the capability of making you very sick. One option is getting tested for Mycotoxins in your body.
- EMMATesting.com can provide you info.

****Please understand that no air filter in the world will take care of mold issues until you have the moisture water or humidity under control and the mold is properly cleaned and removed from your house.*

- **Professional remediation.** Any sizeable or verifiable Mold problem should be handled by a Licensed professional remediator. Unless proper precautions are taken, undertaking mold removal on your own can be almost as hazardous as doing nothing at all,¹⁹ because spores will be stirred up and sent airborne during the cleaning process without proper engineering control.
- This may not be cheap, but it's better than the alternative. If you catch the problem early, you can save yourself thousands of dollars in cleanup costs. (Trust me, as I made this mistake myself and wouldn't want to see anyone else go through it.) Make sure a remediator doesn't use chemicals you're sensitive to—a chemical allergy is the LAST thing you need while you are recovering from a mold poisoning! Dr. Mercola.
- Contact the .moldhelpcenter.com and speak to a Licensed Professional Today.
- **Call 1-855-247/MOLD (6653) or Complete the Contact Form provided.**

Warning! Be Careful How You Chose Your Remediator

There is no question that a high-quality [active air purifier](#) can help control mold issues but it will NOT remediate against them. You can use the best air filters and purifiers and they will never solve the problem if you continue to have water intrusion into you home that increases the humidity and feeds the growth of the mold.

You will need to stop the water at its source and carefully remove and clean the mold infested materials. While this may superficially seem an easy task, let me assure you that it isn't.

I recently had a leak in my basement that was improperly remediated for \$10K and the cause was not addressed so the problem worsened, which more than tripled the price to properly clean it up. That is part of the reason that prompted me to contact some of the leading experts in this area and learn how to do this properly.

So let me tell you from personal experience, you need to find a qualified expert and professional that is certified by one of the agencies below. I would also suggest getting several bids for the work.

You can find a contractor or professional listings on the following sites. Both the IICRC and NORMI are certifying organizations for mold remediation, but the IICRC certification is perhaps the most widely used:

- [IICRC](#) (Institute of Inspection, Cleaning and Restoration Certification)
- [ACAC](#) (American Council for Accredited Certification)—a certifying body that is third-party accredited.
- [The IAQA](#) (Indoor Air Quality Association)—a membership organization with no certification program (the ACAC handles this by agreement)
- [RIA](#) (Restoration Industry Association)
- [NORMI](#) (National Organization of Remediators and Mold Inspectors)

Keep in mind that a mere certification or listing may not be enough. Also evaluate the remediator's qualifications and insurance (liability as well as workman's comp). With the ACAC, there are a few different levels.

A Great Natural Treatment for Mold Allergy

If you have a mold allergy, there is a little-known treatment strategy that Dr. Rapp describes as "one of the best hidden secrets." It's called provocation neutralization.²⁰

Provocation neutralization (PN) offers allergy sufferers permanent relief with virtually no side effects, whether the allergy is to mold or something else. The success rate for this approach is very high, and you can receive the treatment at home.

Provocation refers to "provoking a change" and neutralization refers to "neutralizing the reaction caused by provocation." During provocation neutralization, a small amount of allergen is injected under your skin to produce a small bump called a "wheal" and then you are monitored for a reaction. If you have a positive reaction, such as fatigue or headache, or a growth in the size of the wheal, then the allergen is neutralized with diluted injections of the same allergen. If you are interested in pursuing PN, the American Academy of Environmental Medicine (AAEM)²¹ has a list of physicians who are trained in this technique.

There is also research suggesting [vitamin D could prevent mold allergies](#), so make sure your [vitamin D levels](#) are optimal.