

The Common Toxin that Can Be FAR More Damaging than Pesticides and Heavy Metals...

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By Dr. Mercola

Mold in your home, school or workplace can pose a number of serious health problems that you may not realize are related to mold exposure. This article is part of a series of articles I'm writing about this silent health threat. The focus of this particular article will be on some of the more serious medical conditions—*some deadly*—with which mold has been associated.

For an overview of mold—where you might find it, how to identify it, and how to get rid of it—refer to [this previous article](#).

Story at-a-glance

>> Mold in your home, school or workplace is a serious concern for your health, since up to 40 percent of American schools and 25 percent of homes have mold infestations.

>> Mycotoxins, or the toxins some molds produce, can cross into your brain from your nose and eyes; some of the more neurotoxic molds can cause central nervous system effects such as cognitive and behavioral changes, ataxia and convulsions.

>> Two of the better-known toxic molds include *Stachybotrys chartarum* ("black mold"), which can cause everything from headaches to cancer, and *Aspergillus*, which can cause severe lung infections, or progress to whole-body infections.

>> Mold is particularly dangerous for infants and children. There is evidence that some cases of SIDS may be related to toxic mold exposure.

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In a [previous interview with mold expert Dr. Jack Thrasher](#), he estimated that as many as 40 percent of American schools and 25 percent of homes have mold infestations, unbeknownst to the people occupying those buildings. It follows that adverse health effects of mold may be reaching pandemic levels.

Growing right along with mold are what are called "[gram negative](#)" and "[gram positive](#)" bacteria. Just like mold, they require moisture and organic material to thrive and are often found growing in the same places as mold, and the synergistic action between mold and bacteria further worsen inflammatory health conditions. Oftentimes, bacterial infections occur alongside fungal infections and make treatment more complicated.

Everyone is potentially at risk for toxic mold exposure, regardless of your geographic region, climate, socioeconomic status, race, age or gender. As with most other medical challenges, knowledge is your most powerful weapon.

Scientific research has been emerging that connects mold exposure with various health conditions for which the causes were previously unknown. For example, in 2010, [Fisk et al published a meta-analysis](#) showing a substantially significant association between residential dampness and mold with respiratory infections and bronchitis. Dr. Michael Gray has compiled a database of conditions reported in the literature of adverse health effects of fungi in man and other species. These include, but are not limited to, the following conditions—some common and some relatively esoteric:

Alimentary toxic aleukia (a lack of leukocytes arising from food poisoning)	Dendrochiotoxicosis (alimentary mycotoxicosis caused by Dendrochium toxicum fungus)	Kashin Beck disease (an bone and joint disease)	Usov's disease
Stachybotryotoxicosis	Cardiac beriberi	Ergotism (the effect of long-term poisoning by ergot fungus)	Balkan nephropathy (a form of kidney disorder)
Reye's syndrome (condition that causes swelling of your brain and liver)	Hepatocellular carcinoma (liver cancer)	Onyalai (a rare form of thrombocytopenia; abnormally low platelet count)	

Mold CAN Hurt You

Many common health problems may be associated with mold exposure, but *very few* people have connected the dots. This is why it is SO important for you to be aware of the seriousness of this problem and become familiar with what to look for.

From a toxicity point of view, some mycotoxins (toxic substances produced by mold) are actually far more toxic than heavy metals, in terms of concentration. Mycotoxins also tend to affect more biological systems in your body than do pesticides or heavy metals, partly because fungi have the ability to dodge your immune system by rapidly mutating, while at the same time producing chemicals that *suppress your immune system*.

If your immune system is stressed in any way, or if you are extremely sensitive and have allergy-like reactions to a variety of agents ([see Multiple Chemical Sensitivity syndrome or MCS](#)), then you may be even MORE sensitive to mold than the average person and have chronic symptoms directly related to mold in your environment. But even if you are generally healthy, mold can still pose a significant risk if you are caught off-guard.

Deadly Mycotoxins Can Cross Into Your Brain From Your Nose and Eyes

[Mycotoxins](#) are chemical toxins present within or on the surface of the mold spore, which you then unwittingly inhale, ingest, or touch. These mold toxins are extremely potent and often affect nearly every organ system in your body. Some effects resemble radiation sickness. Some are neurotoxic and produce central nervous system effects, including cognitive and behavioral changes, ataxia and convulsions. Approximately [70 percent](#) of the people with confirmed exposure to toxigenic molds exhibit significant neurotoxicity.

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.

One of the reasons mycotoxins are so toxic is they can cross directly into your brain. According to Dr. Thrasher, your olfactory neurons are in direct communication with your brain—there is no barrier. Anything you have inhaled or smelled, even if it doesn't have an odor, can go directly into your brain via these olfactory neurons. Mycotoxins have even been found to enter your brain via optic muscles and optic nerves. This lack of a blood-brain barrier has been confirmed in [scientific studies](#).

This creates the potential for mold-induced sinusitis to lead to *serious brain complications* if left untreated.

More than 200 mycotoxins have been identified from common molds. [Mycotoxins interfere with RNA synthesis and may cause DNA damage](#). Mycotoxins, even in minute quantities, are lipid-soluble and readily absorbed by your intestinal lining, airways and skin. 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.

The mycotoxins that have probably received the most attention by researchers are the trichothecenes, produced by *Stachybotrys chartarum* and *Aspergillus versicolor*, two of the molds I'd like to discuss due to their especially toxic effects.

Stachybotrys Chartarum: The Dreaded "Black Mold"

Stachybotrys chartarum (SC) is a greenish black mold that grows on material with high cellulose content, such as wood, straw, hay, wicker, cardboard, fiberboard, etc., particularly when these materials become water damaged. It needs a good deal of dampness to flourish. According to [Mold-Help.org](#), the toxic effects of *Stachybotrys chartarum* were first reported in the 1920s in Russia when horses and cattle that had eaten moldy hay began dying. The "Yellow Rain" attacks in Southeast Asia in the 1970s were associated with aerosolized trichothecenes, the type of mycotoxin produced by this highly toxic type of mold.

SC is typically dark in color and wet and slimy to the touch. It can also appear grayish or sooty, with a powdery appearance.

However, it's important to remember that molds cannot be identified visually—many molds are similar in appearance. *Cladosporium*, *Aspergillus*, *Alternaria* and *Drechslera* can be mistaken for *Stachybotrys*. The only definitive way to identify a species is by examination of the spores under a microscope, which is why professional testing is so important.

According to [Mold-Help.org](#):

"Most people are not aware that harmful molds come in a variety of colors—they can be white, or orange, or blue, for instance. The color of a mold generally has to do with the spores it produces, and has no bearing on whether it is dangerous or not. There are some white molds that grow on walls and other surfaces that can be just as bad as the harmful black molds."

Mycotoxin poisoning by *Stachybotrys* is referred to as stachybotryotoxicosis. In animal studies, trichothecenes are 40 times more toxic when inhaled than when ingested orally. But even if SC is present in your environment, you may not be at risk because it may not be currently releasing toxins.

Again, according to [Mold-Help.org](#):

"Laboratory studies indicate that molds such as *Stachybotrys* that have the ability to produce toxins **do not always do so**. Whether a mold produces a toxin while growing in a building may depend on what the mold is growing on, conditions such as temperature, food, pH, humidity or other unknown factors. When mycotoxins are present, they occur on spores and the small mold fragments that may be released into the air."

The spores from SC can survive temperatures up to 500 degrees F, as well as surviving caustic agents like bleach and acid. According to Dr. Michael Gray, spores from molds removed from 2 million year-old sedimentary rocks have grown when placed in a favorable media!

When these mycotoxins are present, they can suppress and even destroy your immune system, including your lymphoid tissue and bone marrow. Animals injected with SC toxins experience hemorrhaging from their brains and other organs, including their thymus, spleen, lungs, intestine, liver and kidney. Humans with chronic exposure to SC mycotoxins have reported the following health problems:

Cold and flu symptoms	Respiratory problems, such as asthma and nose bleeds	Memory loss	Muscle aches
Sore throat	Headaches	Dermatitis and rashes	Fatigue and generalized malaise
Hair loss	Cancer	Pulmonary hemorrhage, emphysema-like disease	Autoimmune disease

Aspergillosis: Mold that Can Take Up Residence In Your Lungs

Aspergilli are some of the most common environmental molds, frequently found in decaying plant matter, such as compost heaps. Inside, it's found in air conditioning and heating ducts, insulation, and even on some food and spices. Most strains of this common mold are not dangerous, but a few can cause serious illness when their spores are inhaled by people who have weakened immune systems, as is the case with asthma or underlying lung disease. Or, healthier individuals can be at risk from long-term exposure to mold quietly growing in water-damaged buildings.

Infections caused by *Aspergillus* are called [aspergillosis](#), which is actually a group of illnesses ranging from mild to severe lung infections, or even whole-body infections. The most serious type of aspergillosis is invasive aspergillosis, which is when the mold invades your blood vessels and the spreads to the rest of your body.

Aspergillus allergy can result in fever, productive cough and worsening asthma.

With aspergillosis, you can actually grow a "fungal ball" in your lungs, a tangled ball of fungal fiber called aspergilloma. Aspergilloma can lead to coughing up blood (hemoptysis), wheezing, shortness of breath, fatigue and weight loss. According to the [Mayo Clinic](#), if this type of fungal infection becomes very severe, it can spread to your brain, heart, kidneys or skin. You can also develop pneumonia. Invasive aspergillosis can cause:

Fever and chills	Hemoptysis (coughing up blood)	Pulmonary hemorrhage	Shortness of breath
Chest or joint pain	Nosebleeds	Facial swelling on one side	Skin lesions

Exposure to one known variety of *Aspergillus* (*A. niger*) can damage your hearing. Severe *Aspergillus* infections are generally treated with aggressive intravenous antifungal medications, and even surgery in some cases. You can obtain more information about aspergillosis [here](#).