

## The Mold Controversy

There are two schools of thought in the medical community:

One group believes that molds cause allergic responses only (i.e. asthma, fungal sinusitis) and the other group has “scientific” evidence showing that inhalation of mycotoxins causes adverse health effects and not just allergic responses.

» National Indoor Mold Society



### ***What is the purpose of National Indoor Toxic Mold Awareness Month?***

The purpose of National Indoor Toxic Mold Awareness Month is to inform, educate, and raise awareness about the adverse health effects due to exposure of indoor molds and mycotoxins.

### ***What are molds?***

Molds are a common name for fungi. Molds are microscopic organisms that produce enzymes to digest organic matter and mold spores to reproduce. These organisms are part of the fungi kingdom, a realm shared with mushrooms, yeast, and mildews. In nature, molds play a key role in the decomposition of leaves, wood, and other plant debris. Molds need moisture to grow.

### ***What are mycotoxins?***

Mycotoxins are toxic vapors produced by mold spores when they sporulate, or grow, and have serious health effects on humans and animals. Mycotoxins are so poisonous that they have been used as a biological war weapon. *Stachybotrys chartarum* is the most studied and well-known toxic mold. It is known to produce trichothecene mycotoxins. *Aspergillus* produces aflatoxin mycotoxins. Aflatoxins are among the most carcinogenic substances known.

### ***How do you get sick from mycotoxins?***

Mycotoxins enter the body through inhalation, ingestion, or contact with the skin, and can result in a multitude of symptoms including but not limited to: dermatitis, cough, rhinitis, nose bleeds, cold and flu-like symptoms, headache, general malaise and fever.

### ***How can exposure to indoor mold and mycotoxins affect my health?***

Mycotoxin exposure can lead to toxic injury that may include multiple illnesses, affecting the skin and the nervous, vascular, respiratory, digestive, reproductive, urinary, and immune systems; including the formation of cancers and can be life-threatening.

### ***Can mold grow inside the human body?***

Yes. Certain species of molds referred to as “body temperature molds” can live and grow inside the human body, causing recurring infections and numerous other health problems as well as death.

### ***Should I use bleach to clean mold?***

No. Bleach combined with certain mycotoxins and VOC's (Volatile Organic Compounds), can create neurotoxins and brain tumors. OSHA does not recommend using bleach in mold remediation. Ammonia dissolves some molds and neutralizes the mycotoxins. It is important to follow safety guidelines when using cleaners to remove molds. Consult the EPA website for proper personal safety equipment when removing mold. If mold growth is over 10 square feet, the recommendation is to contact a professional who is experienced in cleaning up mold; either a reputable, certified industrial hygienist (CIH) or a qualified mold remediation company.

## **Toxic Mold Fact Sheet**

The National Indoor Toxic Mold Awareness Month Planning Committee developed this Toxic Mold Fact Sheet to provide information about molds and mycotoxins. Currently, there are no Federal Government Standards for indoor air quality regarding molds and mycotoxins. This information is provided to inform the public on the preventable health and development problems that may be caused by exposure to toxic mold in their homes, schools, and communities.

### **Important Mold Facts:**

People are routinely exposed to more than 200 species of fungi indoors and outdoors. There are sixty species that produce the 180 trichothecene mycotoxins. Mycotoxins kill other things, like bacteria and viruses, so mold can continue to grow. The American Cancer Society lists aflatoxin mycotoxins as known human carcinogens. The FDA has enforced regulatory limits on aflatoxin concentrations in foods and feeds since 1965.

Mold spores, whether dead or alive, can cause adverse health effects. Molds also produce a large number of volatile organic compounds (VOCs). These chemicals are responsible for the musty odors produced by growing molds.

According to the U.S. Environmental Protection Agency (EPA):

- There is no practical way to eliminate all molds and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.
- Molds can be found almost anywhere; they can grow on virtually any substance, providing moisture is present. There are molds that can grow on wood, paper, carpet, and foods.
- Clean and dry any damp or wet building materials and furnishings within 24-48 hours to prevent mold growth.

### **Incidences:**

It is estimated that 500,000 deaths occur yearly in the United States due to exposure to indoor toxic mold.

According to an EPA study, an estimated 50% of our nation's schools have problems linked to poor indoor air quality.

### **Health Causes:**

Mycotoxin exposure can lead to toxic injury that may include multiple illnesses, affecting the skin and the nervous, vascular, respiratory, digestive, reproductive, urinary, and immune systems; including the formation of cancers and can be life-threatening.

### **Studies:**

In the mid-1990's, a study conducted from Cleveland, Ohio, involved infants who had died suddenly from unexplained pulmonary hemorrhage (bleeding of the lungs). Upon investigation, the researchers found that the infants resided in homes with high levels of *Stachybotrys atra*, linking *Stachybotrys atra* exposure to serious health effects and even death. A government study is now being conducted, with findings to be released in 2010.

A 1997 Mayo Clinic study found that 96% of recurring sinus infections are caused by fungus in the sinuses. When participants were treated with anti-fungal sinus sprays, recurrence of infection was considerably less, and in some cases, no recurring infections were noted.

Fifty percent of the 937 children tested in a large multicity asthma study sponsored by the National Institutes of Health showed sensitivity to mold, indicating the importance of mold as an asthma trigger among these children. Molds are thought to play a role in asthma in several ways. Molds produce many potentially allergenic compounds, and molds may play a role in asthma via release of irritants that increase potential for sensitization or release of toxins (mycotoxins) that affect immune response.

**DISCLAIMER:** The purpose of this fact sheet is to inform, not treat or offer legal counsel to the public about mold/mycotoxin health related issues. It is not intended to diagnose, treat, cure or prevent any disease or take the place of medical advice and treatment from your personal physician, nor is it intended to serve as legal counsel. Please consult your own doctor or other qualified health professional regarding the treatment of your medical problem and consult your attorney for legal counsel.