



**UPDATED: 08/2011**

## **TROPICAL STORM/HURRICANE INFORMATION SHEET**

### **FREQUENTLY ASKED QUESTIONS: INDOOR MOLD AND YOUR HEALTH**

These are some of the most common questions and concerns about indoor mold, how it affects human health, and ways in which you can prevent it.

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

Molds are types of fungi. They grow in the natural environment. Tiny particles of molds are found everywhere in indoor and outdoor air. In nature, molds help break down dead materials, and can be found growing on soil, foods, plants and other items. Molds are also very common in buildings and homes. Mold needs moisture to grow. Indoors, mold growth can be found where humidity levels are high, like basements and showers. Molds produce microscopic cells called "spores" that are spread easily through the air. Spores can also be spread by water and insects. Live spores act like seeds, forming new mold colonies when they find the right conditions.

#### **What makes mold grow?**

Mold only needs a few things to grow and multiply:

- Nutrients (food)
- A suitable place to grow
- Moisture

Many building materials (such as wood, sheetrock, etc.) provide food that can support mold growth. Even dust that has settled on these materials or furniture can be a food source for molds.

Molds can grow almost anywhere there is enough moisture or high humidity. Controlling moisture is the key to stopping indoor mold growth, because all molds require water to grow.

Moisture can come from:

- Flooding from the outside (storm water, overflowing lakes, streams, storm surge, etc.)
- Flooding from the indoor (overflow from sinks, tubs, toilets, air conditioner drain pans or sewerage systems)
- Condensation (caused by indoor humidity that is too high or surfaces that are too cold)
- Water leaks from outside the building (roof, walls, floors)
- Indoor plumbing leaks or broken water pipes
- Outdoor sprinkler spray hitting the walls, or indoor fire sprinklers
- Poor venting of kitchen and bathroom moisture (steam from shower or cooking)
- Humidifier use
- Drying wet clothes indoors, or not venting clothes dryers outdoors (including electric dryers)
- House plants (over watering, etc.)
- Moisture from our bodies (sweat, wet hair on pillows, breath)
- Warm, moist air from outdoors
- Liquid spills

#### **Should I be worried about mold in my home?**

Yes and no. On the one hand, there will always be mold in your home in the form of spores and pieces of mold cells. The presence of mold in the air is normal. On the other hand, one should not let mold grow and multiply indoors. When this happens, your level of exposure can increase, thereby increasing the risk of potential health problems. Building materials, household goods and furnishings may also be damaged. Mold needs to eat to survive, and it's perfectly happy eating your home if you allow it.

### **What health problems can be caused by mold?**

There are four kinds of health problems that come from exposure to mold:

- allergic illness
- irritant effects
- infection
- toxic effects

For people that are sensitive to molds, symptoms such as nasal and sinus irritation or congestion, dry hacking cough, wheezing, skin rashes or burning, watery or reddened eyes may occur. People with severe allergies to molds may have more serious reactions, such as hay-fever-like symptoms or shortness of breath. People with chronic illnesses or people with immune system problems may be more likely to get infections from certain molds, viruses and bacteria. Molds can also trigger asthma attacks in persons with asthma. Headaches, memory problems, mood swings, nosebleeds and body aches and pains are sometimes reported in mold complaints, but the causes of these physical symptoms are not yet understood. There is evidence of specific long-term toxic effects from eating foods with mold toxins. Unfortunately, very little is known regarding the actual health risks from breathing in or skin contact with mold toxins. Allergic disease is now considered the most likely health problem related to mold exposures. Research into the possible health effects related to mold exposure continues today.

### **How can I tell if there is mold in my home, or should I test my home for mold?**

Indoor mold growth can usually be seen or smelled. In most cases, if visible mold growth is present, sampling is not needed. There are no health- or exposure-based standards that you can use to evaluate a mold sampling result. The Florida Department of Health does not recommend mold testing or sampling to see if you have a mold problem, or to see what kind of mold might be growing. Sampling for mold in the air can be expensive and, if done, should only be done by experienced professionals. Investigate a mold problem; don't test.

Look for visible mold growth (it may look cottony, velvety, rough, or leathery and have different colors like white, gray, brown, black, yellow, or green). Mold often appears as a staining or fuzzy growth on furniture or building materials (walls, ceilings, or anything made of wood or paper). Look for signs of moisture or water damage (water leaks, standing water, water stains, condensation, etc.).

Check around air handling units (air conditioners, furnaces) for standing water. Routinely inspect the evaporator coils, liner surfaces, drain pans and drain lines. Search areas where you notice mold odors. If you can smell an earthy or musty odor, you may have a mold problem.

If mold-allergic people have some of the symptoms listed above when in your home, you may have a mold problem.

### **How can I be exposed to mold?**

Mold is virtually everywhere, floating in the air and on all surfaces. People are exposed to molds 24 hours a day, seven days a week, and 365 days a year. Exposures increase when indoor moldy materials become dried, damaged or disturbed, causing spores and other mold cells to be released into the air and then inhaled. Elevated exposure can also occur if people directly handle moldy materials or accidentally eat mold.

### **How much mold does it take to make me sick?**

It depends on the situation and the person. This question is difficult to answer in the same way it's hard to say how much sun causes a sunburn-the amount varies from person to person. What one person can tolerate with little or no effect may cause symptoms in another individual.

The long-term presence of indoor mold may eventually become unhealthy for anyone. Those with special health concerns should consult a medical doctor if they feel their health is affected by indoor mold. The following types of people may be affected sooner and more severely than others:

- Babies and children
- Elderly persons
- Individuals with chronic respiratory conditions or allergies or asthma
- Persons having weakened immune systems (for example, people with HIV or AIDS, chemotherapy patients, or organ transplant recipients)

### **Are some molds more hazardous than others?**

Some types of molds can produce chemicals called mycotoxins. These molds are common, and are sometimes referred to as toxic mold. There are very few reports that toxic molds inside homes can cause unique or rare health conditions. If you think you have a mold problem in your home, you do not need to find out what type of mold you may have. All molds should be treated the same when it comes to health risks and removal. All indoor mold growth should be removed promptly, no matter what type(s) of mold is present, or whether or not it can produce mycotoxins.

### **What is *Stachybotrys chartarum*?**

*Stachybotrys chartarum* (also known as *Stachybotrys atra*) is a greenish-black mold that can grow on materials such as drywall or sheetrock, ceiling tiles and wood when they become moist or water-damaged. Not all greenish-black molds are *Stachybotrys chartarum*. Some strains of *Stachybotrys chartarum* may produce mycotoxins. Whether a mold produces mycotoxins depends on what the mold is growing on and conditions such as temperature, pH, humidity or other factors. When mycotoxins are present, they occur in both living and dead mold spores, and may be present in materials that have become contaminated with molds. While *Stachybotrys* is growing, a wet slime layer covers its spores, preventing them from becoming airborne. When the mold dies and dries up, air currents or physical handling can cause spores to become airborne.

Currently, there is no test to determine whether *Stachybotrys* growth found in buildings is producing toxins. There is also no blood or urine test that can tell if an individual has been exposed to *Stachybotrys chartarum* spores or its toxins.

### **How can *Stachybotrys* affect my health?**

Typically, indoor air levels of *Stachybotrys* are low. As with other types of mold, at higher levels adverse health effects may occur. These include cold-like symptoms, rashes, sinus inflammation, eye irritation and aggravation of asthma. Some symptoms are more general - such as inability to concentrate or fatigue. Usually, symptoms disappear after the mold is removed.

### **How can I tell when *Stachybotrys chartarum* is present in my home?**

Many molds are black but are not *Stachybotrys*. For example, the black mold often found between bathroom tiles is not *Stachybotrys*. *Stachybotrys* can be identified only by specially trained professionals through a microscopic exam or by cultures. The Florida Department of Health does not recommend that people sample mold growth in their home. All indoor mold growth should be removed, regardless of type.

### **How can I prevent mold growth?**

Water is the key. Without it, mold growth cannot start, much less multiply and spread. The easiest way to prevent the mold from gaining a foothold is to control dampness. Keep your home clean and dry. When water stands for even 24 hours, common molds can take hold. Keeping humidity levels below 60% and venting moisture from showering and cooking to the outside are several ways to prevent the conditions that can lead to mold growth. Other ways include:

- Clean and dry up spills within 24 hours
- Dry out wet building materials and carpets within 24 hours
- Use an air conditioner or a dehumidifier to reduce the indoor humidity levels below 60%. If you have a central air conditioning system and need a dehumidifier to reduce relative humidity below 60%, you should have the air conditioning system examined for problems
- Do not carpet bathrooms or basements

**Note:** While most experts suggest a relative humidity of less than 60%, below 50% is best for controlling both mold growth and dust mites. Dust mites are microscopic animals related to spiders, ticks and other mites. Dust mites eat mold and dead human or animal skin scales (flakes) and leave allergenic proteins. Dust mites reduce allergen production at these lower humidity levels.

### **Who can I call if I suspect that I have a mold problem, or if I want more information on mold?**

For additional information about the health effects of mold exposure and information on the safe removal of mold, please call your County Health Department's Environmental Health Office, the Florida Department of Health, Radon and Indoor Toxics Program at 1-800-543-8279, or the U.S. Environmental Protection Agency's Indoor Air Quality Information Clearinghouse at 1-800-438-

4318. If you have a mold complaint about an apartment or hotel, call the Florida Department of Business and Professional Regulation at 850-487-1395.

### **What is the Florida Department of Health doing about mold?**

The Florida Department of Health Indoor Air program helps with mold issues through the following activities:

- Providing technical assistance and advice to the public, County Health Departments, School Districts and others
- Distributing current information and other resources on mold and moisture control

Please note that the Florida Department of Health does not provide mold testing or support to professional consultants.

### **What can the County Health Departments Do?**

County Health Department staff should be able to:

- Help you with the identification of mold problems and advise you on investigation techniques and clean-up methods
- Answer your questions about health effects and possible hazards of mold exposure
- Provide mold prevention advice into public message and disaster response plans
- Direct concerned people to the appropriate local resources or to the Florida Department of Health Indoor Air Program staff

### **Where can I obtain additional information on the Internet?**

U.S. Environmental Protection Agency (EPA)

<http://www.epa.gov/iaq/molds/>

U.S. Department of Health and Human Services

Centers for Disease Control and Prevention (CDC)

<http://www.cdc.gov/mold/default.htm>

Florida Cooperative Extension, University of Florida

[http://edis.ifas.ufl.edu/TOPIc\\_Moisture\\_Mold\\_and\\_Mildew](http://edis.ifas.ufl.edu/TOPIc_Moisture_Mold_and_Mildew)

### **For more information, please contact:**

Florida Department of Health  
Division of Environmental Health  
Bureau of Community Environmental Health, Radon and Indoor Toxics  
4052 Bald Cypress Way, Bin A08  
Tallahassee, FL 32311

1-850-245-4288 or Toll-Free 1-800-543-8279

<http://www.doh.state.fl.us/environment/community/indoor-air/mold.htm>