



## **Mold Information for the Public**

### **What is mold?**

Mold is found throughout all indoor and outdoor environments. Indoors, mold can damage property. Some molds produce chemicals called mycotoxins that may be harmful to your health. Visible mold should be removed from indoor spaces. Outdoors, mold plays an important role in helping to break down dead leaves, wood, and other perishable things found in nature.

Mold produces spores, very tiny particles that cannot be seen by the naked eye. Spores are the "seeds" of mold and are common in every home. They can grow into new mold when they land on a wet surface or on food.

### **How can you tell if you have a mold problem in your house?**

You can find a mold problem by using your eyes and your nose.

If you see:

- signs of moisture or water damage such as water leaks, standing water, water stains, discoloration on walls or other surfaces
- white, gray, brown, black, yellow, orange or green growths with a cottony, velvety, granular, or leathery texture

or smell:

- musty or earthy odors



you may have a mold problem.

To find some mold growths, you may need to look underneath flooring, behind furniture, near stored items, or may need to make an opening in a wall. *If you have not had an obvious water leak or high moisture problems in your home and you do not see mold growing in your home, you are not likely to have a mold problem.*

### **Are there different types of mold?**

There are more than 100,000 types of mold. Common indoor mold types are cladosporium, penicillium, alternaria, and aspergillus.

Black mold (also known as *Stachybotrys chartarum*, *Stachybotrys atra*, or SC) has received a lot of television and newspaper attention in recent years. SC is white, greenish-black, or black mold that grows on material with a high cellulose content that has been wet for several days. High cellulose materials include drywall, cardboard, wood, paper, and drop ceiling tiles. Under certain conditions, SC, like some other molds, can produce chemicals called mycotoxins that may be harmful to your health.

It is important to remember that not all black molds are SC and that SC does not always produce mycotoxins. While alive, SC is slimy and does not release many spores. Exposure is greatest when SC dries and spores or bits of the mold growth are released into the air.

### **Should you have mold testing done in your home?**

No, it is not recommended that you have mold testing done in your home. Tests are not useful in determining mold-related health risks and can be very expensive. Standards have not been established to determine what is or is not an acceptable level of mold. Because mold spores are everywhere, mold testing results can be very difficult to interpret and often do not help with mold removal efforts.

### **How can you clean up mold?**

Follow these steps to clean up mold:

1. Locate and fix the water leak or moisture problem.
2. Wear disposable rubber gloves, goggles that don't have ventilation holes, and a respirator available at your local hardware store (N-95 or HEPA cartridge types) to reduce your exposure to mold spores. If you have respiratory problems (like asthma or emphysema) or the area is large (over two square feet), check with your doctor before starting cleanup or have someone else do the cleanup.
3. Be sure the area is well ventilated. Open windows and doors and use fans to create a path of fresh air from the cleanup area through the closest door or window leading to the outdoors. Avoid blowing mold spores through the rest of the house.
4. When mold is growing on porous material (for example, ceiling tiles, leather, cloth, drywall, plaster, paneling, wood products, paper, carpet, or padding) remove the material, bag, and discard it. When removing drywall, cut at least 12 inches beyond the area of visible mold. Hard (non-porous) material such as glass, plastic, or metal does not need to be thrown out. It can be cleaned and disinfected.
5. Use **non-ammonia** soap or detergent in hot water to scrub non-porous areas. Use a stiff brush or cleaning pad on block walls or uneven surfaces.
6. Thoroughly rinse the area with hot water. Using a wet-dry vacuum is an easy way to pick up excess water. Remove the filter so that it doesn't get wet, creating a place for mold to grow.
7. Disinfect the area with a dilute solution of 1 part household bleach to 10 parts water. To avoid serious harm to the skin, eyes or lungs, **NEVER mix bleach with ammonia or other chemicals**. Do not use straight bleach – it will not be more effective. Avoid getting the bleach solution on areas you don't want to clean. Wear old clothing – bleach can ruin clothes.
8. Allow the area to completely dry. This can take two or three days. Raising the room temperature and running a dehumidifier in the area will help.
9. Vacuum your home thoroughly with a HEPA or filtered vacuum.
10. If you still have mold odors after cleaning and ventilating, it is possible the mold is hidden within walls or behind wall coverings. It is important that these sources are found and cleaned.
11. If you have mold damage caused by sewage or other contaminated water, call in a contractor who has experience in cleaning up this kind of building damage.
12. If you choose to hire a contractor to do cleanup, make sure the contractor has experience in cleaning up mold. Check the contractor's references. *The State of Michigan does not certify or license contractors for mold removal.*

## **Does exposure to mold affect your health?**

Exposure to mold does not usually result in health problems. The average healthy person's immune system usually provides enough protection from the harmful effects of mold. Most health problems caused by mold are from allergic reactions to it. For example, allergic reactions have occurred among farm workers handling large amounts of moldy hay. People with special health concerns (infants, children, and adults with respiratory conditions or impaired immune systems) may be more sensitive to mold allergy than the general population.

The most common health problems due to mold exposure are:

- runny nose
- sinus congestion
- eye irritation
- cough and congestion
- sore throat
- sneezing
- upper respiratory infections
- headaches
- worsening asthma
- fatigue

**These are common health problems that can be caused by many health conditions.  
See your doctor if you feel that exposure to mold is making you sick.**

## **How can you prevent exposure to mold?**

Exposure to mold can occur from:

- breathing in mold spores that have been released into the air
- eye contact with mold spores that have been released into the air
- eating food that has become contaminated with mold
- touching the eyes, nose, or mouth with mold-contaminated fingers

The best way you can prevent exposure to mold is to control moisture and prevent mold from growing. Here are some tips to prevent exposure:

- Throw out moldy food.
- Promptly attend to leaking pipes, flooded basements, roof leaks, and other ways that water can get into living spaces.
- Run exhaust fans in showers, baths, indoor pool areas, and cooking areas to allow moisture and steam to escape outdoors.
- Not all moisture problems are the result of leaks, condensation, or floods. Humidity levels above 60 percent for an extended time period can create conditions for mold growth. In humid months, try using an air conditioner or dehumidifier to keep the humidity in your home below 50 percent.
- Humidifiers increase the moisture in your home. If you use a humidifier, be sure that it is set properly to prevent excessive humidity.
- Be sure your clothes dryer is vented outdoors. If the humidity in your home is high, avoid drying clothing indoors on drying lines or racks.
- Clean bathrooms with mold-killing products. Be sure to read the product label first to see if there are any health precautions or recommendations for the product that you are using.

- Insulate water pipes and install chimney liners to limit condensation.
- Use storm windows to limit indoor window condensation.
- Cover crawlspaces with a vapor barrier (like plastic sheeting) and ventilate to prevent moisture build-up.
- Use area rugs that can be washed often. A vapor barrier may be necessary under carpet that is installed over concrete.
- Have your heating and cooling systems inspected and serviced regularly.

### **Are there laws in the State of Michigan related to mold issues?**

The State of Michigan does not have laws that require anyone to cleanup, remove, or report mold in any indoor environment. The State of Michigan does not have a program to address issues related to mold, other than to provide people basic information about mold clean-up. *The State of Michigan does not certify or license contractors for mold removal.*

However, laws do exist that cover certain situations that involve indoor mold. The following is a list government agencies that may be able to provide guidance if your house or apartment has indoor mold.

**Landlord and tenant relationships:** If you are renting an apartment or house, you have the right to expect certain minimum standards referred to as “warranties of habitability” that provide minimum standards of decent, safe, sanitary housing specified in the state or local housing code. For more information on landlord-tenant relationships go to:  
[http://www.tenant.net/Other\\_Areas/Michigan/index.html](http://www.tenant.net/Other_Areas/Michigan/index.html).

**Fraud in mold remediation companies:** If you believe you are a victim of fraudulent business practices from a company involved in mold remediation, contact:  
 Michigan Consumer Protection Division  
 P.O. Box 30213-7713  
 Lansing, MI 48909  
 (517) 373-1140  
 Toll-free (877) 765-8338

**Legal issues related to new home construction and mold:** If you have questions about laws regarding new housing construction and contractors actions related to mold, contact:

Michigan Department of Labor & Economic Growth  
 Bureau of Commercial Services/Enforcement Division  
 P.O. Box 30018  
 Lansing MI 48909  
 (517) 241-9202

### **For more information on mold:**

- Michigan Department of Community Health Toxics and Health hotline and website: 1-800-648-6942, [www.michigan.gov/mdch-toxics](http://www.michigan.gov/mdch-toxics)
- Your local public health department, find it at <http://www.malph.org/page.cfm/108/>
- Centers for Disease Control: <http://www.cdc.gov/mold/>
- National Center for Housing and the Environment: <http://www.stopmold.org/>