



## *New York State Department of Health* *Indoor Air Quality - Information about* *Mold*

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### ***What are Molds?***

Molds are microscopic organisms that live on plant or animal matter. They aid in the break down of dead material and recycle nutrients in the environment. Present virtually everywhere, they can be found growing on organic material such as soil, foods, and plant matter. In order to reproduce, molds produce spores, which spread through air, water, or by insects. These spores act like seeds and can form new mold growth if the conditions are right.

### ***Why do molds grow?***

Mold will grow and multiply under the right conditions, needing only sufficient *moisture* (e.g., in the form of very high humidity, condensation, or water from a leaking pipe, etc.), and *organic material* (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

### ***Can mold become a problem in my home?***

Mold growth may occur in your home if there is sufficient moisture because mold spores are everywhere. Be on the lookout for these common sources of moisture:

- Flooding
- Roof leaks
- Plumbing leaks, drainage problems
- Damp basements and crawl spaces
- Steam from the bathroom or kitchen
- Condensation resulting from poor or improper insulation or ventilation
- Humidifiers
- Wet clothes drying inside the home or a clothes dryer venting indoors
- Poor or improper ventilation of combustion appliances

Indications of a moisture problem may include discoloration of the ceiling or walls, warping of the floor, or condensation on the walls or windows. *The key to preventing mold growth is to control all moisture problems.*

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

Mold can be a concern in the home and should not be allowed to grow. Extensive mold contamination may cause health problems as well as damage to the home.

### ***Can mold make my family sick?***

Exposure to mold can cause health effects in some people. The most common effects are allergic responses from breathing mold spores. These allergic responses include hay fever or asthma and irritation of the eyes, nose, throat or lungs. We usually cannot say how much mold is too much as our reactions to allergens can vary greatly depending on individual sensitivity. Allergic responses can come from exposure to dead

as well as to living mold spores. Therefore, killing mold with bleach and or other disinfectants may not prevent allergic responses.

Less common effects of mold exposure include infections and toxic effects. Serious infections from living molds are relatively rare and occur mainly in people with severely suppressed immune systems. Many types of molds may produce toxins but only under certain growth conditions. Toxic effects have been reported from eating moldy grain, but evidence is weak that breathing mold spores in buildings causes toxic effects.

### ***What are common symptoms of mold exposure?***

Allergy and irritation are the most common symptoms of mold exposure. Although symptoms will vary, the most common symptoms seen in people exposed to mold indoors include:

- Nasal and sinus congestion
- Eye irritation, such as itchy, red, watery eyes
- Respiratory problems, such as wheezing and difficulty breathing
- Cough
- Throat irritation
- Skin irritation, such as a rash
- Headache

### ***Who is most at risk for health problems from mold exposure?***

Exposure to high amounts of mold is not healthy for anyone, so obvious mold growth in the home should be cleaned up. However, some individuals may be more susceptible to health problems from mold exposure. These include:

- Individuals with current respiratory sensitivities (*e.g.*, allergies, asthma, or emphysema)
- Individuals with a compromised immune system (*e.g.*, HIV/AIDS infection, organ transplant patients, or chemotherapy patients)

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

Any extensive indoor mold growth should be treated as a potential health concern and removed as soon as practical no matter what species of mold is present. Identify and correct the source of moisture so that mold will not grow back.

### ***How do I know if I have a mold problem?***

A mold problem can usually be seen or smelled. Mold growth may often appear as slightly furry, discolored, or slimy patches that increase in size as they grow. Molds also produce a musty odor that may be the first indication of a problem. The best way to find mold is to examine areas for visible signs of mold growth, water staining, or follow your nose to the source of the odor. If you can see or smell mold, you can assume you have a mold problem. Other clues include excess moisture and water damage. It may be necessary to look behind and underneath surfaces, such as carpets, wallpaper, cabinets, and walls.

There are some areas of the home that are always susceptible to mold growth and should be part of routine cleaning to keep them under control. They are seldom the cause of significant health effects. These are:

- The seal on the refrigerator door
- Shower curtains
- Window moldings
- Shower stalls and bathroom tiles
- Surfaces on and around air conditioners

***Should I have my home tested for mold?***

Sampling can be expensive. The results are also difficult to interpret partially because we have very limited information about what level of mold exposure is associated with health effects. In some cases, knowing the type of mold that is present can be helpful, but for most cases, sampling is unnecessary. Overall, the best practice regardless of the type or amount of mold is to promptly clean up any mold growth in your home and to correct the water problem that caused it.

**CLEANING UP MOLD: HOW TO GET RID OF IT**

1. The first step to mold cleanup is to control the moisture problem. The source of the water must be identified and corrected.
2. Porous materials with extensive mold growth should be discarded (e.g., drywall, carpeting, paper, and ceiling tiles).
3. All wet materials must be thoroughly dried. If that is not possible, they should be discarded.
4. Mold growing on hard surfaces (e.g. wood and concrete) can be cleaned. Small areas can be scrubbed with a cleaning rag wetted with dilute detergent. Rubber gloves and a dust mask are recommended for jobs other than routine cleaning. For a large mold problem or if you are highly sensitive to mold, an experienced professional should do the work.
5. In areas where it is impractical to eliminate the moisture source, a 10% bleach solution can be used to keep mold growth under control. In areas that can be kept dry, bleach is not necessary, as mold cannot grow in the absence of moisture. When using bleach, ensure that enough fresh air is available because bleach may cause eye, nose, or throat irritation.
6. Continue to monitor the area for new mold growth and signs of moisture. This may indicate the need for further repairs or material removal.

**Additional clean up guidance available at:**

**U.S. Environmental Protection Agency**

**Indoor Air - Mold**

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

**New York City Department of Health & Mental Hygiene - Bureau of Environmental & Occupational Disease Epidemiology**

*Guidelines on Assessment and Remediation of Fungi in Indoor Environments*

<http://www.nyc.gov/html/doh/html/epi/moldrpt1.html>

**References:**

**Center for Disease Control -**

**National Center for Environmental Health**

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

**Minnesota Department of Health**

**Environmental Health in Minnesota**

*Mold in Homes*

<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

**California Department of Health Services**

**Indoor Air Quality Info Sheet**

*Mold in My Home: What do I do?*

<http://www.cal-iaq.org/mold0107.htm>

**New York City Department of Health & Mental Hygiene -Bureau of Environmental & Occupational Disease Epidemiology**

*Facts about Mold*

<http://nyc.gov/html/doh/html/ei/eimold.html>

**Further questions can be directed to:**

**New York State Department of Health**

**Bureau of Toxic Substance Assessment**

**547 River Street, Flanigan Square**

**Troy, NY 12180**

**1-800-458-1158 (ext. 27800) or**

**(518) 402-7800**

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