

LOSS CONTROL DATA GUIDE

## Mold

Concern about indoor exposure to mold has been increasing as the public becomes aware that exposure to mold can cause a variety of health effects and symptoms, including allergic reactions.

Molds can be found almost anywhere; they can grow on virtually any organic substance, as long as moisture and oxygen are present. There are molds that can grow on wood, paper, carpet, foods, and insulation. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed. It is impossible to eliminate all mold and mold spores in the indoor environment. However, mold growth can be controlled indoors by controlling indoor moisture levels.

Many types of molds exist. All molds have the potential to cause health effects. Molds can produce allergens that can trigger allergic reactions or even asthma attacks in people allergic to mold. Others are known to produce potent toxins and/or irritants. Potential health concerns are an important reason to prevent mold growth and to remediate any existing indoor mold growth.

Since mold requires water to grow, it is important to prevent moisture problems in buildings. Moisture problems can have many causes, including uncontrolled humidity. Some moisture problems in buildings have been linked to changes in building construction practices during the 1970s, 80s, and 90s. Some of these changes have resulted in buildings that are tightly sealed, but may lack adequate ventilation, potentially leading to moisture buildup. Building materials, such as drywall, may not allow moisture to escape easily. Moisture problems may include roof leaks, landscaping or gutters that direct water into or under the building, and unvented combustion appliances.

When mold growth occurs in buildings, some building occupants, particularly those with allergies or respiratory problems, may report adverse health problems. Many people are allergic and develop severe respiratory illnesses related to mold exposure.

Allergic reactions can include asthma attacks, chronic sinusitis and various other respiratory problems. Children, the elderly, and people with immune system problems are particularly at risk. The key to mold control is moisture control. Solve moisture problems before they become mold problems!

### Mold prevention tips

- Fix leaky plumbing and leaks in the building envelope as soon as possible.
- Watch for condensation and wet spots. Fix source(s) of moisture problems as soon as possible.
- Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid).
- Keep heating, ventilation, and air conditioning (HVAC) drip pans clean, flowing properly, and unobstructed.
- Vent moisture-generating appliances, such as dryers, to the outside where possible.
- Maintain low indoor humidity, below 60% relative humidity (RH), ideally 30-50%, if possible.
- Perform regular building/HVAC inspections and maintenance as scheduled.
- Clean and dry wet or damp spots within 48 hours.
- Don't let foundations stay wet. Provide drainage and slope the ground away from the foundation.

### HVAC system

Do not run the HVAC system if you know or suspect that it is contaminated with mold. Regular inspection of your HVAC system is recommended to see if mold is present. If mold is identified you should remediate the problem before using the system.

### Hidden Mold

In some cases, indoor mold growth may not be obvious. It is possible that mold may be growing on hidden surfaces, such as the backside of dry wall, wallpaper, or paneling, the top of ceiling tiles, the underside of carpets and pads, etc. Possible locations of hidden mold can include pipe chases and utility tunnels (with leaking or condensing pipes), walls behind furniture (where condensation forms), condensate drain pans inside air handling units, porous thermal or acoustic liners inside ductwork, or roof materials above ceiling tiles (due to roof leaks or insufficient insulation).

Some building materials, such as dry wall with vinyl wallpaper over it or wood paneling, may act as vapor barriers, trapping moisture underneath their surfaces and thereby providing a moist environment where mold can grow. You may suspect hidden mold if a building smells moldy, but you cannot see the source, or if you know there has been water damage and building occupants are reporting health problems. Investigating hidden mold problems may be difficult and will require caution when the investigation involves disturbing potential sites of mold growth—make sure to use personal protective equipment (PPE). For example, removal of wallpaper can lead to a massive release of spores from mold growing on the underside of the paper. If you believe that you may have a hidden mold problem, you may want to consider hiring an experience professional. If you discover hidden mold, you should revise your remediation plan to account for the total area affected by mold growth.

### Safety tips while investigating and evaluating mold and moisture problems

- Do not touch mold or moldy items with bare hands.
- Do not get mold or mold spores in your eyes.
- Do not breathe in mold or mold spores.
- Consider using PPE when disturbing mold. The minimum PPE is an N-95 respirator, gloves, and eye protection.

### Mold remediation - key steps

- Consult health professional as appropriate throughout process.
- Select remediation manager.
- Assess size of mold problem and note type of mold-damaged materials.

- Communicate with building occupants throughout process.
- Identify source or cause of water or moisture problem.
- Plan remediation, adapt guidelines to fit situation, see <http://www.epa.gov/iaq/molds> for additional information.
- Select personal protective equipment (PPE) and containment equipment.
- Choose between outside expertise or in-house expertise. If using in-house staff select remediation personnel or team.
- Remediate.
- Fix water or moisture problem.
- Clean and dry moldy materials.
- Discard moldy items that can't be cleaned.
- Dry non-moldy items within 48 hours.
- Check for return of moisture and mold problem.
- If hidden mold is discovered, reevaluate plan.

### Get help

Outside contractors or professionals should be considered for mold remediation. Consult your Yellow Pages or the Internet to find a mold remediation company in your area. If you choose to use outside contractors or professionals, make sure they have experience cleaning up mold, check their references and have them follow the recommendations presented on the EPA website <http://www.epa.gov/iaq/molds>, the guidelines of the American Conference of Government Industrial Hygienists (ACGIH), and/or the guidelines from other professional organizations.<sup>1</sup>

<sup>1</sup>All information in this Data Guide is from the United States Environmental Protection Agency. This and further information may be found at the EPA's website (<http://www.epa.gov/iaq/molds/>.)

The loss prevention information and advice presented in this brochure are intended only to advise our insureds and their managers of a variety of methods and strategies based on generally accepted safe practices, for controlling potentially loss producing situations commonly occurring in business premises and/or operations. They are not intended to warrant that all potential hazards or conditions have been evaluated or can be controlled. They are not intended as an offer to write insurance coverage for such conditions or exposures, or to imply that Great American Insurance Company will write such coverage. The liability of Great American Insurance Company is limited to the specific terms, limits and conditions of the insurance policies issued.