

## Basic Mold Prevention<sup>1</sup>

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Mold is a form of fungi and a part of nature. Just as other plants produce seeds to reproduce themselves, mold produces tiny spores to reproduce itself. These spores are floating through outdoor and indoor air and water at almost all times.

Mold spores need three things in order to grow: moisture, nutrients, and warm temperatures. Warm and humid weather provides excellent conditions for mold to grow. This is why we have more mold problems in Florida than in cooler and drier states.

Mold can have harmful effects on human health. We can be exposed to mold either by touching it or by breathing air that contains mold spores. This exposure may cause allergic symptoms and health problems. Reactions differ from person to person, but can include sneezing, coughing, runny nose, sinus problems, nosebleeds, asthma, skin and/or eye irritation, headaches, difficulty concentrating, and even memory loss.

Mold is also destructive to buildings and property. When mold spores grow, they decompose and digest the surface that they are growing on. This results in damage to buildings and discoloration and deterioration of furniture, books, and other items.

### Basics of Mold Prevention

As we have explained, for mold to grow, the conditions must be right. First, the mold spores must find their way into the home. Then, in order to grow, the spores need moisture, food, and warm temperatures.

Mold spores are so small that they are invisible to the naked eye. They exist almost everywhere, in indoor and outdoor air. It is not really possible to eliminate mold spores. Instead, we can prevent indoor mold growth by controlling moisture in the air, eliminating nutrient sources, and controlling temperatures.

**Control moisture in the air.** Moisture control is the key to mold control. Mold spores cannot grow without water. Moisture in our houses comes from many sources. Outdoor moisture can come into our houses either as damp air or as water. It enters through doors, windows, and other openings, such as cracks. We also make moisture inside our house by breathing, cooking, dishwashing, showering, and doing laundry. To prevent mold, dry out any excess moisture and try to prevent moisture from entering the home.

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**Keep your house clean and eliminate nutrients.**

Many materials in homes provide a ready source of nutrients for mold. Mold can feed on natural fibers used in clothing and furnishings, paper products, glues, such as those sometimes used in book bindings, and materials in some grout. Some materials, such as ceramic tile, glossy paint, and glass, do not support mold growth when they are clean. However, the slightest amount of soil on their surfaces will supply the necessary nutrients for mold growth. Soap "scum" left on shower stalls and shower curtains can provide the required nutrients for mold growth. Smoke and cooking oils also can settle on walls and furnishings and provide a soil on which mold will grow. Walls, closets, basements, clothing, and other textiles where mold is likely to grow should be kept clean in order to discourage mold.

**Control the temperature in your home.** Mold thrives at temperatures between 77°F and 86°F. Hot summer weather encourages mold growth. Air conditioning will reduce the interior temperature of homes, but if the air is humid, the temperature may not be uniformly low enough to stop mold growth. Pay special attention to the areas inside cabinets and closets and behind draperies and furniture. These places are often warmer than the rest of the house. Humidity will be trapped in these areas unless there is a way for air to circulate in and out.

**Everyday Mold Prevention Tips**

As we have shown, the best way to prevent mold growth in your house is to keep your house *clean* and *dry*. Here are some more tips from experts to prevent mold growth:

- Clean your house regularly.
- Remove food stains from furniture as quickly as possible.
- Clean showers and tubs weekly (or more often) so that mildew cannot grow on soap scum and moisture.
- Use fans to circulate the air.
- Keep closet doors open so air will circulate.

- Check the temperature and humidity in your house regularly. Try to keep indoor humidity below 60% relative humidity (ideally, it should be at 30-50%). Use a moisture or humidity meter to measure the relative humidity level. You can buy a small and inexpensive one at your local hardware store.
- Watch for condensation and wet spots. Fix moisture problems as soon as possible.
- Fix leaky plumbing.
- Perform regular heating, ventilation, and air conditioning (HVAC) inspections and maintenance. Keep HVAC drip pans clean, flowing properly, and unobstructed.
- 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.

**For More Information**

For more information on mold and moisture control, refer to FCS 3256 (Moisture Control in Your Home, Part 1: The Basics) and FCS 3257 (Moisture Control in Your Home, Part 2: Room by Room Tips).

**References**

*Control mold growth!* (n.d.) Retrieved September 28, 2006, from [http://www.drgreene.com/21\\_1272.html](http://www.drgreene.com/21_1272.html)