

## Cleaning mold

If you do find mold in your home, don't panic! Use good common sense. Start with a simple detergent solution and then progress to household bleach if necessary (1/4 cup per gallon of water is enough). Always use safety equipment when cleaning, including:

- Eye goggles
- Natural rubber gloves (or synthetic plastic such as neoprene)
- Appropriate clothing (such as a long sleeve shirt, jumpsuit, etc)
- Respirators (N-95 recommended)

When applying detergents and bleaches, use hand application (wear gloves) or a simple spray device (e.g., a garden sprayer). Don't use pressure washers as they force water into places where water shouldn't be, and they also can have rubber components that may be damaged. Also, maintain adequate ventilation throughout the cleanup.

After cleaning, let everything dry thoroughly before rebuilding, covering, etc. If the mold is removed from wood, make sure the moisture content of the wood is 19% or below!

Although it is tempting to look for quick solutions to your mold problems, the following methods are not effective in cleaning:

- Ozone generators** – they don't generate enough ozone to kill the mold and can be dangerous to your health
- Odor "rocks"** placed on the floor to absorb the odors – they may deal with the odor, but not the mold
- "Air Ionizers"** – they have some effect, but they're not efficient
- Lye or other non-approved chemicals** – these can be caustic and dangerous to you



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Things to  
Know About:

Mold,  
Moisture,  
&  
Homes



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# Things to Know About: Mold, Moisture & Homes

## What is mold?

Molds are naturally-occurring microscopic fungi that are neither plants nor animals. They are important to our ecosystem because they decompose dead organic matter in the environment. Although the toxic species *Stachybotrys chartarum/atra* has gained notoriety lately, it is relatively rare when compared to the 100's of others that are non-toxic and important (e.g., *Cladosporium*, *Penicillium*, *Aspergillus*, and *Alternaria*). Also, it is important to note that molds are different from decay fungi and don't generally do any structural damage to wood (although they do indicate the presence of moisture).

## How do I recognize mold?

Molds are often recognized by their musty odor caused by microbial volatile organic compounds (MVOCs). They also can be identified by the spores they produce which are often much smaller than the diameter of a human hair. Finally, most molds are "black" or "tarry grey," but other colors such as green and yellow do exist.



*Molds can have many colors, as shown on this piece of fiberboard.*

## Where do I find mold?

Molds have been around for a long time and their spores are found everywhere (inside and outside your house). Really, there is no practical way of eliminating all mold spores. Molds get into homes by air infiltration through open doors, windows, heating and cooling systems, cracks, ventilation, etc. Spores also attach themselves to clothing, shoes, and pets.



*Let things dry before rebuilding. Remove wet sheetrock to allow underlying studs to dry.*

## How do molds affect people?

Although molds can affect all of us, they particularly affect the sensitive populations (e.g., people with allergies, suppressed immune systems, etc.). Typical reactions include:

### Severe:

- Fever
- Shortness of breath
- Respiratory reactions

### Mild:

- Nasal stuffiness
- Eye irritation
- Wheezing
- Skin irritation

## How do molds grow?

Like people, mold spores require food, water, air, and the right temperature conditions for growth. Their preferred foodstuff includes cellulose from wood and paper, carpeting, fabrics, etc. They also require water and the right temperature range (usually between 40 F and 100 F) to prosper. Remember, light is not required for growth and, in fact, ultraviolet radiation kills mold.



*Wood should have a moisture content of less than 19% to prevent mold growth. In if doubt, test the moisture content with a moisture meter, shown above.*

## Moisture control in housing

Mold growth can be greatly minimized by eliminating water. To eliminate water in your home, you should:

- Avoid water leakage and seepage by maintaining caulking and seals
- Eliminate unnecessary standing water
- Minimize putting water in the air (e.g., from your kitchen, clothes dryer, shower, etc.)
- Ventilate and use exhaust fans where appropriate
- Use dehumidifiers and air conditioners
- Not use kerosene and propane heaters indoors as they produce moisture
- Maintain "warm surfaces" on floors and other interior elements in hot and humid climates to avoid water condensation (e.g., consider maintaining your house temperature around 75 F)
- Move air (use a fan!!)
- Not put carpeting in direct contact with concrete unless vapor barriers are used
- Use mold inhibiting paints and primers (biocides, fungicides) where appropriate



*Cleaning supplies for removing mold include household detergent, bleach, buckets, sponges, etc. Don't forget to always use appropriate clothing and safety equipment!*