

Mold in your home: Cleaning options

Before you clean

Before cleaning mold in your home, first understand why it's there and **fix the problem causing the mold growth**. This will require a thorough inspection. Fungi (or mold) need a source of moisture, a source of organic matter, and proper temperature. Areas inside your home that have poor air movement and a source of moisture are likely areas for mold growth.

Once the source of the water intrusion and the food source have been found, they should be addressed to prevent future mold growth. If this is not done, mold may return. You must either eliminate or ventilate the source of water or moisture. Affected building materials, such as carpets or drywall, may need to be replaced.

If I see mold in my home, should it be tested?

Testing for mold is generally not necessary. If you can see and smell it, you have a mold problem. **However, it is recommended that you do have a thorough inspection to determine the cause of the mold growth.** DHFS recommends that you hire a consultant specializing in building assessments to evaluate your entire house. For a list of Home Performance Consultants, contact the Wisconsin Focus on Energy Program at 1-800-762-7077 or go to: <http://www.focusonenergy.com> and follow the links for *Your Home, Tools*, and *Find a Home Performance Consultant*. These specialists conduct indoor air quality (IAQ) investigations, and can determine when structural issues exist that may be causing mold problems (such as ice dams, moisture, and heating and cooling complaints). They can help you understand why mold is growing in your home and what actions you will need to take to prevent mold growth. There are also IAQ consultants and mold remediation contractors whose primary focus is mold. For lists of these, go to <http://www.dhfs.state.wi.us/eh>, follow the link for *Human Health Hazards* and then click on *Mold*.

How can I clean up mold in my home?

Occasionally, mold can be found in the bathroom, on a windowsill, shower curtain, or wall. This mold can be wiped off the surface with a damp cloth and cleaning agent (e.g. window or bathroom cleaner). Preventing mold growth requires controlling the moisture source. This may be as simple as using a dehumidifier or fixing a simple leak. For larger mold problems (about 10 square feet), follow the three (3) phases below: *(If you feel that the following guidelines are too vigorous, you should contact a mold contractor to complete the clean-up.)*

A. Preparation phase

Gather the following items:

- Plastic sheets to cover door openings, windows floors and vents (the plastic should be at least 4 mm in thickness)
- A breathing respirator (to cover mouth and nose) with HEPA cartridges (available at most home fix-it stores)
- 3 spray bottles/plant misters
- Paper towels or disposable rags
- Heavy duty plastic garbage bags

- General household cleaner (**only use cleaners without ammonia**) Household bleach (5% chlorine) Note that bleach is typically not necessary to clean up mold, unless a sewage release occurred. In this case, a dilute bleach solution can be used as a final rinse to help reduce both mold and bacteria.
- Latex (non-latex if you are allergic to latex) or rubber gloves and goggles
- A one-cup measuring container
- 3 buckets that will hold at least a gallon of water each
- Commercial grade HEPA-Vacuum. Do not use a home vacuum since it is not designed for this type of work. Contact your Local Health Department to find out where to rent a HEPA-Vacuum in your area.
- Dehumidifier. Do not use a fan since it can cause mold spores to be released.

B. Mixing phase

WARNING: Do not mix bleach with other household cleaners. Some household cleaners contain ammonia. If ammonia is mixed with chlorine bleach, a toxic gas can form, causing serious injury or death.

1. Mix general household cleaner and water in a bucket and transfer to a spray bottle (follow manufacturer's instructions).
2. If bleach use is desired due to a gray (laundry) or black (sewage) water release, prepare a bleach solution in a separate bucket. Using gloves and goggles, add one cup (8 ounces) bleach for every gallon of hot water. Bleach (the active ingredient is chlorine) can reduce mold and bacteria on treated surfaces.
3. Transfer the bleach solution into the 2nd spray bottle (use gloves and goggles).
4. Pour clean, warm, rinse water (no bleach or household cleaner added) into the 3rd spray bottle.

C. Application and cleaning phase

CAUTION: The bleach solution is irritating and harmful to the skin, eyes, and clothing. Avoid direct contact with the bleach by wearing rubber gloves, respirator and goggles during the entire mixing and cleaning process.

Before you begin:

- Seal off the room from the rest of the house with the plastic and tape.
- Keep children and animals out of the work area during the cleaning procedure.
- Do not eat, drink, chew gum/tobacco or smoke at any time during cleaning.
- Use a dehumidifier prior to, during, and after the clean-up to keep areas dry and prevent mold from reoccurring.

Clean-Up:

1. Spray and remove visible mold with general household cleaner solution. Start from the top and work down. Change towels frequently. Discard towels in plastic bag. Rinse the same area with clean water on a damp towel or lightly spray with warm rinse water in a spray bottle and wipe with a clean towel.
2. Repeat the above step until all visible mold is gone. Note: There may be some discoloration of the surface from both the mold and the cleaning solution. Take care to avoid damaging the surface by cleaning too hard.

3. If a bleach solution is to be used, wipe the affected area and let set for 15 minutes (for fungicides other than bleach, follow the manufacturer's instructions). Rinse the area with a damp towel using clean warm water or by lightly spraying with warm rinse water in a spray bottle and wiping with a clean towel.

Once Complete:

1. Once the surface is dry to the touch, HEPA Vacuum for at least 1 minute per square foot of affected area. Dead mold and spore bodies can still be highly allergenic to susceptible individuals, so thorough HEPA-vacuuming is necessary to remove all mold fragments. Place HEPA-vacuum bag into a garbage bag (follow manufacturers guidelines for using a HEPA-Vacuum).
2. Tightly tie the garbage bag and dispose of it as you would your everyday household garbage.
3. Flush wastewater down a toilet, utility sink, or floor drain.
4. Change out of your cleaning clothes. Wash your hands and face.
5. Wash your cleaning clothes separate from your family's laundry.
6. At this point, you can apply paint or other coating to the surface. You may wish to use a paint/coating that contains a mildewcide or fungicide to prevent future mold growth. Be sure to follow the manufacturer's instructions and recommendations when using any mildew resistant paint or paint additive. Remember, these are also pesticides, and may have adverse health effects on some individuals.

Note on Use of Ozone Air Cleaners

Do not use ozone air cleaners to kill mold. Ozone air cleaners generate ozone: a known respiratory irritant. The USEPA does not recommend using ozone generating air cleaners for treating indoor mold problems (<http://www.epa.gov/iaq/pubs/ozonegen.html>). If a contractor or a consultant recommends the use of an ozone generating air cleaner to treat a mold problem in your home, please file a complaint with the Wisconsin Department of Agriculture, Trade and Consumer Protection at 1-800-422-7128, or on the web at <http://datcp.state.wi.us> and click on ***File Consumer Complaint***. Be sure to include as much information as possible.

For more information on mold

- For health related questions, contact the Division of Public Health, Bureau of Environmental Health, PO Box 2659, Madison, WI 53701-2659, (608) 266-1120.
- For other environmental health resources, including contacting your local public health agency, visit: www.dhfs.state.wi.us/eh

