Mold Cleanup with Bleach

Directions for cleaning up mold after a flood

Before You Clean

Mold is a type of fungus that needs moisture, organic matter for food (like wood, paper, fabric, plants, etc.), oxygen, and a warm temperature to grown and thrive. After a home or building floods, the flood waters will have soaked carpeting, furniture, and building materials (drywall, wood studs, flooring, etc.), creating an ideal environment for mold growth.

These materials must be removed or completely dried out to prevent mold from growing, to prevent health impacts and structural damage to your home. Areas inside your home that have poor air movement and retain moisture are common places where mold grows. Remove moisture sources and repair damages promptly to avoid mold growth.

Testing for Mold

Testing for mold is generally not necessary. If you can **see and smell it**, you have a mold problem. In flood situations, mold growth may begin on the backside of wet drywall between building supports or under wet carpeting. It may not be visible, but you may notice a musty or moldy smell.

Disposing of wet, flood-damaged building materials, furnishings, and personal items are key to preventing mold problems. If ongoing mold problems occur, you should have a thorough inspection to determine the source of the mold growth. DHS recommends that you hire a consultant specializing in building assessments to evaluate your entire house.

Cleaning Up Mold

- Take items that were wet for two or more days outside. Items that are wet for two days have mold growing on them even if you can't see it.
- Take out things made of cloth, unless you can wash them in hot water. Also remove items that can't be cleaned easily like leather, paper, wood, and carpet.
- Use bleach to clean mold off hard things like floors, stoves, sinks, certain toys, countertops, flatware, plates, and tools.
- Never mix bleach with ammonia or other cleaners, it can create a toxic gas.
- Wear rubber boots, rubber gloves, goggles, and a respirator mask rated for protection from mold spores.
- Open windows and doors to get fresh air in while you use bleach.
- Mix no more than one cup of bleach in one gallon of water.
- Wash the item with the bleach and water.
- If the surface of the item is rough, scrub the surface with a stiff brush.
- Rinse the item with clean water.
- Dry the item or leave it out to dry.

Mold is often found in bathrooms on shower curtains, caulk, grout, windowsills, or walls. Mold on these surfaces can sometimes be wiped off with a damp cloth and a household cleaner. Preventing mold growth always requires controlling the moisture source. This may be as simple as using a dehumidifier, installing a fan that vents outside, or fixing a slow faucet leak.

For larger mold problems (about 10 square feet or more), follow these instructions:

1. Preparation Phase — Supplies

- Plastic sheets, at least 4 mm thick, to cover door openings, floors, and vents
- A breathing respirator that covers mouth and nose with HEPA cartridges
  - This type of respirator provides appropriate protection from mold spores for the person wearing it, but does not protect people nearby from viruses like Covid.
- Three spray bottles/plant misters
- Paper towels or disposable rags
- Heavy duty plastic garbage bags
- General household cleaner (**without** ammonia)
- Regular household bleach (between 1% to 5% chlorine). Bleach is typically not necessary to clean up mold—unless a sewage is present. In this case, both mold and bacteria can be reduced by using a bleach solution as a final disinfecting rinse.
- Latex or rubber gloves and goggles
- A one-cup measuring container
- Three 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.
- Dehumidifier

2. Mixing Phase

- **Spray bottle #1:** Mix general household cleaner and water in a bucket, then transfer to the spray bottle (follow manufacturer's instructions), and label the bottle. Remember not to mix bleach with household cleaners; if ammonia is mixed with bleach, a toxic gas can form.
- **Spray bottle #2:** Add 1 cup bleach to every gallon of tap water in a bucket, then transfer to the spray bottle, and label it. Bleach is necessary when water has come in contact with dirty laundry (gray water) or sewage (black water). Always use gloves and eye protection when handling bleach.
- **Spray Bottle #3:** Fill a spray bottle with clean, warm water for rinsing, and label it.

3. Application and Cleaning Phase

- The bleach solution is irritating and harmful to the skin, eyes, and clothing. Avoid direct contact with the bleach by wearing rubber gloves, a respirator, and goggles during the entire mixing and cleaning process.
- Prepare the work area:
  - Seal off the room from the rest of the house with the plastic sheet and tape.
  - Keep children and animals out of the work area.
  - Do not eat, drink, chew gum/tobacco, or smoke at any time during cleanup.
  - Use a dehumidifier before, during and after the cleanup to keep areas dry and prevent mold regrowth.
- Removing the mold.
  - To remove visible mold, spray the affected area with a general household cleaner (spray bottle #1). Start from the top and work down, changing towels frequently. Discard towels in a plastic bag. Rinse the same area with clean water on a damp towel or lightly spray with warm rinse water in a spray bottle (spray bottle

#3), and wipe with a clean towel. Repeat until all visible mold is gone.

- Spray a bleach solution (spray bottle #2) to remove mold and disinfect any surfaces touched by gray or black water, wipe the mold off the affected area, and let set for 15 minutes. Rinse the area with a damp towel using clean, warm water or by lightly spraying with warm rinse water in a spray bottle (spray bottle #3), and dry the area with a clean towel.

4. Cleaning Up the Work Area

- Once the surface is dry to the touch, use a HEPA vacuum to remove allergens. Place the HEPA vacuum bag into a garbage bag and dispose of it as you would normal garbage.
- Flush wastewater down a toilet, utility sink, or floor drain.
- Change out of your cleaning clothes and wash them separate from your other laundry.
- Wash hands and face.

At this point, you can apply paint or other coating to the surface. You may wish to use a paint or coating that contains a fungicide to prevent future mold growth. Be sure to follow the manufacturer's instructions and recommendations when using any mold-resistant paint or paint additive. Remember, these are also pesticides and may harm the health of certain people who are sensitive to chemicals.

Use of Ozone Air Cleaners

The U.S. Environmental Protection Agency (EPA) does not recommend using ozone-generating air cleaners for treating indoor mold problems. Ozone air cleaners generate ozone, which irritates your nose, throat and lungs. If a contractor recommends the use of an ozone-generating air cleaner to treat mold problems in your home, please file a complaint with the Wisconsin Department of Agriculture, Trade, and Consumer Protection at 1-800-422-7128.