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Mold after a Flood

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When the power goes off for several days in hot, humid climates, it is difficult to avoid a mold explosion. Molds produce spores that spread easily through the air and form new mold growths (colonies) under the right conditions: moisture, nutrients (nearly anything organic) and a place to grow. Mold growth is common after flooding or water damage.

Mold can damage materials and your health. The longer you allow mold to grow, the greater the risk and the harder the cleanup. **So as soon as it is safe to return home, begin cleanup and drying.**

Mold testing is not usually needed and is rarely useful to answer questions about health concerns. Some insurance companies and legal services may require sampling for documentation.

The best way to avoid mold hazards is to hire a reputable firm that is licensed and trained in dealing with water damage and mold remediation. But that may be difficult after a disaster. You may have to do the cleanup yourself. If so, follow the steps below.

After a flood

- **First take an inventory:** Compile a room-by-room inventory of missing or damaged goods, and include manufacturer's names, dates and places of purchases and prices. Take photographs to document the damages for insurance purposes.
- **Dry all wet materials as quickly as possible.** If possible, use air conditioning or heat with fans and dehumidifiers. If you have no power and can get access to a generator, run a dehumidifier indoors to help remove moisture from the air. New mold colonies can form in as little as 3 days if materials stay wet. Wood and other materials that look dry can still be wet enough to support regrowth.
- **Remove wet carpeting right away.** It's best to discard it. If the carpet is salvaged, clean, disinfect and dry it quickly. Never reuse flooded padding.
- **Cut away wet wallboard and remove all damp insulation** right away—even if wallboard appears to be dry. Wet insulation will stay wet far too long, leading to the growth of hidden unhealthy mold and decay fungi inside the walls.
- **Clean items with nonphosphate detergents** (any phosphate residue is mold food). If you disinfect, follow the directions carefully and never mix bleach with ammonia or acids (vinegar). Disinfectants can kill molds, but they do not prevent regrowth.
- **Do all you can to speed the drying of subfloors, slabs and wall framing** *before* replacing insulation, wallboard and flooring. Use air conditioning, heaters, fans or, better yet, a dehumidifier. Contractors that specialize in water damage restoration have special equipment (dehumidifying blowers) that can provide the fastest drying.
- **Test the moisture content of studs and sheathing** (using a moisture meter) if possible before replacing insulation. Wood products specialists recommend that wood have no more than 14 percent moisture by weight before you close the wall.

- **DO NOT use vinyl wallpaper.** It will prevent further drying on the inside.

Mold cleanup guidelines

1. Minimize your exposure during cleanup.

People are exposed to mold by breathing spores or fragments. You can also be exposed through skin contact. Wear gloves and a mask or a respirator to filter mold spores (N-95 or better). If you are sensitive to mold, wear splash goggles to help protect your eyes. Wear long sleeves, long pants and sturdy shoes.

2. Isolate the work area and ventilate it to outdoors.

Disturbing mold colonies can cause a massive release of spores, so seal off the contaminated area from the rest of the house. If the power is on, use a fan to send air to the outdoors. If you have no power, ventilate the area if the outside humidity level is not above 60 percent.

3. Remove and discard moldy materials.

Porous moldy or sewage-contaminated materials should be removed, bagged and thrown away. This includes gypsum wallboard, insulation, plaster, carpet/carpet pad, ceiling tiles, processed wood products and paper. To minimize the spread of spores, cover moldy material with plastic to contain spores before removal.

Items that can be cleaned in a washing machine likely can be saved, depending on how long the mold has been growing on the items. Extended periods of mold or mildew growth may stain them.

Upholstered fabric furniture should be discarded if it has been in a flood. If it has only surface mold on it, you might be able to clean it outdoors by letting the mold dry in the sun and then cleaning it with a HEPA-filtered vacuum.

4. Clean all surfaces.

Surface mold on non-porous materials such as hard plastic, concrete, glass, metal and solid wood can usually be cleaned. Cleaning must remove, not just kill, the mold because dead spores can still cause health problems.

After cleaning, you may choose to use a disinfectant to kill any mold missed by the cleaning. In the case of sewage contamination, you must disinfect. Use 1 cup bleach to 1 gal of water solution. Do not use it in the air system. Milder, less corrosive disinfectants include alcohols, disinfecting cleaners and hydrogen peroxide. Always handle bleach with caution. Never mix it with ammonia; test on a small area before treatment.

You may wish to consult a specialist if you are unsure about how to clean an item, or if the item is expensive or of sentimental value. Phone books often have listings of specialists in furniture repair, restoration, painting, art restoration and conservation, carpet and rug cleaning, water damage, and fire or water restoration. Look for specialists who are affiliated with professional organizations. Be sure to ask for and check references.

Remain on mold alert

Continue looking for signs of moisture or new mold growth. If mold returns, repeat the cleaning and consider using speed drying equipment and moisture meters.

Regrowth may signal that the material was not dry enough or should be removed. Rebuilding and refurnishing should wait until all affected materials have dried completely.

Adapted from "Avoiding Mold Hazards in Your Flooded Home," by Claudette Hanks Reichel, Professor and Extension Housing Specialist, Louisiana State University Ag Center.