

# Information About Clean Up After a Flood Event

**This information has been compiled from a variety of sources including the American Red Cross, FEMA and other with experience in mitigating hurricanes and flood disasters.**



## Helpful Information About Clean Up Following a Flood

- Do a form of triage: Decide what can be saved and what can't. If in doubt, throw it out.
- Strip the house of all furnishings impacted by flood waters. Cover salvageable items with plastic and leave outdoors to dry.
- If the carpet got very wet, it has to go, since carpets harbor mold. Saturated carpet is heavy, so remove in 6-foot sections, roll them up with the pad and take it to the dump or put it out with the trash. (High quality oriental or wool rugs may be able to be saved; try not to fold it and get it to a cleaner as soon as possible.)
- Throw away anything porous that got wet: bedding, books and papers, upholstered furniture, kitchen utensils.
- Remove linens and clothing to a dry place; they may be able to be laundered and restored. Non-porous dishes can be cleaned after the water is declared safe to drink and the sewer lines are clear.
- If your refrigerator wasn't underwater, and you think you can salvage it, unplug it and throw everything inside it away. Take out all removable parts. If there is one, empty the defrost water disposal pan. Wash all parts thoroughly with hot water and rinse with disinfectant made from 1 teaspoon chlorine bleach to each gallon of water. With a solution of hot water and baking soda (or 1 cup vinegar or household ammonia to 1 gallon of warm water) wash the interior, including doors and gaskets. Leave the door open for the appliance to ventilate it. **WARNING:** Do not mix ammonia and bleach as it can release poisonous gas.
- If you have mud: Shovel out as much as you can, being careful to wear protective clothing such as rubber boots and gloves. Then, if you have running water, hose down the floors, washing mud out the doors. Don't allow the water to sit on the floor for long; use a wet vac or squeegee mop to remove it promptly.
- Any food including canned food that has been touched by flood water must be considered contaminated and discarded.
- Remove limbs, debris and trash.
- Start the interior drying-out process. There are several ways to do this, some of which will have to wait until it's safe to turn on the electricity.
- Open up closet and cabinet doors. As cabinets dry, you should be able to remove swollen drawers.

- Use fans to move the air. Do not use central air conditioning until ducts have been inspected and cleaned. If ducts run through the slab or were flooded they may contain debris and bacteria, which will just be blown into your home.
- Run dehumidifiers and window air conditioning units.
- Use desiccants (materials that absorb moisture) in closets or other enclosed areas. These include chemical dehumidifying packets used to dry out boats, cat litter made of clay, or calcium chloride pellets used to melt ice in the winter. Hang the pellets in a pillow case in the closet and place a pan beneath to catch dripping water.
- Start removing waterlogged surface materials. Wallboard acts like a sponge; even several inches of water can be soaked upward in what is called a wicking effect. Wallboard will have to go. Plaster survives a flood better than wallboard, but takes a very long time to dry. If plaster separates from the wall laths (studs) as it dries, it will have to be replaced. Wood swells and distorts with moisture intake, but generally regains its shape as it dries.
- Even if walls and ceilings look undamaged, open them at various places to check for mold and mildew. If you see either, drywall must come out.
- Remove, bag and throw away all insulation in the walls. This will have to be replaced.
- Clean all non-porous surfaces with a disinfectant. Ceramic tile is nonporous, so it can be cleaned as usual, although the grout, which is porous, may require special effort. Nonporous materials such as Corian countertops or stainless steel also can be cleaned.
- Vacuum floors if possible with a vacuum that has a HEPA filter. Do not use your regular vacuum unless you can cover the exhaust with a filter or direct the exhaust outside; you may simply blow bacteria around your house.

## **MOLD REMOVAL**

- The rule of thumb is that anything that stays wet for 48 hours has potential mold growth. And anything porous - sheetrock, ceiling tiles, insulation - will host mold. So if you had any standing water for more than two days, you should remove all porous materials.
- Always wear protective clothing when dealing with mold; respirators, preferably made of neoprene, are recommended.
- It is recommended that you use the following mixture to clean all moldy surfaces to keep mold from spreading as you remove porous surfaces: In a garden pump sprayer, mix 3/4-gallon bleach and 1/4-gallon TSP (trisodium phosphate, a common ingredient used in pressure-washing, available in paint and hardware stores) with 1-1/2 gallons water. Spray infested surface so that it is wet to the touch. The kill time is 10 minutes MINIMUM. Scrub infected area if necessary.

- Allow drying to the touch. Repeat procedure. Others recommend a mixture of one part chlorine bleach to nine parts water, but the chlorine smell will linger. Acceptable as well are phenolic or alcohol-based germicides available at janitorial supply stores.
- Remove and discard all porous materials (that is, anything that will absorb water): wallboard, ceiling tiles, insulation, carpet, etc.
- Remove Sheetrock in the following manner: Make a horizontal cut parallel to the floor at least 3 feet above the level of flood water contamination; if the water was 1 foot high in the house, go up to 4 feet of sheetrock and cut it out. If flood waters were 4 feet or above, the entire wall needs to be removed.
- Disinfect studs and other exposed structural wood with a good germicide and then seal them with a fungicidal encapsulant, such as Kilz. Be prepared to remove flooring, since most ceramic tile is installed on top of drywall or greenboard. Spaces between floors and subfloors can harbor mold and bacteria.
- Allow exposed walls to dry thoroughly before starting restoration. This will take at least a week or more. Moisture meters can test for wood moisture.
- While wood frame homes will survive flooding, those fully impacted by flood waters may not be good candidates for repair. On a square-foot basis, new construction is cheaper than remodeling.

**SOURCES: The Red Cross; Federal Emergency Management Agency; interviews with contractors, structural engineers, industrial hygienists, insurance adjusters, residents who have previously mitigated after hurricanes and floods. [Click here](#) for the Red Cross and FEMA publication, "Repairing Your Flooded Home."**