

RETURNING AFTER A FLOOD

WATCH FOR THESE DANGERS

Never assume a water-damaged house or building is safe. Even after the water is gone, hazards can cause injury, illness, or even death. Do not allow children while a flood-damaged home is being cleaned, inspected, or repaired.

- **Electrical hazards:** Do not enter a flooded or wet building if the power is on. If any electrical circuits get wet, turn off the power at the main breaker or fuse box. Leave it off until a licensed electrician can inspect and repair the equipment. Have a local building inspector approve the repairs.
- **Structural damage:** Do not enter a building if the framing or foundation is damaged. Leave immediately if you see shifting or hear unusual noises, which could signal a building collapse.
- **Hazardous materials:** Dangerous materials may be brought in or spilled during a flood. Pesticides, fuel oil, gasoline, chemicals, asbestos, lead-based paint, and more could cause health problems during clean-up.
- **Animal- and insect-related hazards:** Look carefully before entering a building. Displaced animals such as dogs, cats, rodents, snakes, and insects (wasps, fire ants, mosquitos) could be found inside a flooded building.
- **Injuries:** Falling objects, broken or damaged materials, and slippery surfaces may cause injuries such as broken bones and cuts. Lift heavy objects carefully with your legs to prevent muscle strain or back injury.
- **Biological hazards:** Bacteria, viruses, fungi (mold and mildew), and other microorganisms can cause illness when inhaled, ingested, or touched. Mold and mildew can continue to grow after floodwater recedes.
 - **Bacteria, viruses, and other microorganisms:** You may develop a digestive illness if you accidentally get floodwater or dirt in your mouth.
 - **Mold and mildew (fungi):** Items that stay wet for more than 24 hours will likely grow mold. Mold colonies look fuzzy or patchy and could be white, green, brown, or black. Mold particles can cause coughing, sneezing, eye irritation, asthma symptoms, or other respiratory illness. Symptoms may be greater for those with allergies or asthma, people with compromised immune systems, and the very old/young.

STAY SAFE WHILE YOU WORK

- **Wear:**
 - Hard hat and safety goggles
 - Leather work gloves (prevent cuts)
 - Rubber gloves (prevent exposure to chemicals)
 - Facemask, dust mask, or respirator. Look for a mask with NIOSH approval and an N95 rating.
- **Stay alert.** Take breaks and drink fluids.
- **Protect yourself.** Prevent sickness by wearing rubber gloves. Do not eat or drink inside the house. Wash your hands frequently with soap and water.
- **Careful when lifting.** Avoid lifting more than 50 pounds per person to prevent back injuries.
- **Wet down mold** with a soapy solution from a spray bottle before touching, moving, or cleaning moldy materials. This prevents mold from getting into the air. Do this even if the material is already wet.
- **Get help.** Call your local health department or fire department if there is a chemical odor or spilled container of hazardous material.
- **Be prepared.** Seek medical help if you get a cut or puncture that is exposed to the floodwater. Have an up-to-date tetanus immunization and "booster" every 10 years.

Information is courtesy of the North Carolina Department of Health and Human Services Division of Public Health Occupational and Environmental Epidemiology Branch, http://epi.publichealth.nc.gov/oee/a_z/mold.html



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BEFORE MOVING BACK IN

- **Get the mess out.** All floodwater, dirt, and debris must be cleared out. The building must be completely dry.
- **Remove mold and mildew.** Any materials or furnishings that soaked up water must be removed. Moldy or mildewed building materials should be cleaned and dried or removed and replaced.
- **Check out the floors.** Carpet, padding, and plywood or particleboard sub-flooring must be thrown away. It cannot be dried and disinfected properly. Flooring and sub-flooring must be completely cleaned, dried, and disinfected. Make sure no moisture is trapped in or on the sub-floor. Clean and dry out crawl spaces.
- **Dry out walls.** Wet walls should be stripped to the studs and remain open so the wall can dry completely. Insulation should be removed. Any area inside a wall cavity with visible mold should be opened, cleaned, decontaminated, and dried. Exterior walls should be evaluated. Plaster, brick, and concrete block walls can likely be cleaned, disinfected, and completely dried.
- **Check heating ventilation and air conditioning systems (HVAC).** The insides of heating and air conditioning systems can hide mold and make people sick. Interior components (furnace, air conditioner cooling coils and fans) need to be inspected, cleaned, and decontaminated by professionals. Vents and diffusers should be removed, cleaned, disinfected, and reinstalled. Replace lined air ducts and duct boards. Bare sheet metal ductwork can be taken apart, cleaned, washed, disinfected, dried, and put back together.
- **Salvage what you can.** Personal property or furnishings that are wet 24 hours after floodwater recedes will have mold. Clothing and linens can be washed with chlorine bleach and detergent or sent to a dry cleaner. Upholstered furniture, mattresses, and particleboard furniture should be thrown away.
- **Remove contaminants.** Contact local waste disposal services for proper disposal of chemicals or hazardous materials.
- **Make sure building is dry before rebuilding or repairing.** Mold will continue to grow on replacement materials if the studs, sub-floor, or other materials are not completely dry. Test the structure with a moisture meter before replacing the damaged parts of your home.

CLEAN AND DRY THE RIGHT WAY

- Nonporous materials (that don't soak up water) and furnishings and other surfaces should be thoroughly cleaned, disinfected, and allowed to dry completely.
- First, scrub all surfaces with detergent and water. Rinse well. Scrubbing removed mold, mold spores, and dirt.
- Disinfect everything. Liquid chlorine bleach should be used to disinfect and kill any remaining mold and mildew. Let the bleach solution remain on the surface at least 15 minutes before rinsing and drying.
- After cleaning and disinfecting, completely dry each item or mold and mildew will return. To speed drying, keep fresh air circulating.

MORE INFORMATION

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