

STEP SIX: CLEANING UP – AFTER A FLOOD



If you are insured, contact your insurance company. It may save you a great deal of wasted effort to consult a flood restoration specialist to judge what is worth saving and what isn't.

The basic steps to cleaning up after a flood are: remove standing water; remove mud; tear out any walls that need it; clean up; and disinfect. More details on this procedure follow:

- **Remove standing water slowly.** It's important to get the water out of your home when floodwaters have gone down outside, but you must do so gradually to prevent the walls from cracking or buckling. Drain the water in stages, about a third of the volume of water per day.
- **Get rid of mud and hose down the house.** The mud left behind by floodwaters contains most of the health hazards you will face. It is important to get rid of this mud as soon as possible – it's a lot easier to do before the mud dries out.

Shovel out as much mud as possible. Make sure the electricity is turned off, then hose down any dirt sticking to walls or furnishings. Don't forget to hose out light sockets, electrical boxes, and heating and air conditioning ducts. Remove any remaining water with a mop, squeegee or, if you have an outside source of power, a wet/dry shop vacuum.

- **Remove all soaked and dirty materials, hose them off and put them in a safe, dry place until later.** This includes furniture, carpets, clothing, appliances, bedding and dishes – everything that has been exposed to floodwaters.
- **Disinfect all surfaces in the home, whether or not they were soaked by floodwaters.** This includes walls, ceilings, floors and any contents that remain in the home. Use disinfecting or sanitizing products at full strength, or a mixture of one part liquid chlorine bleach to four parts water. After cleaning, rinse all areas thoroughly.



- **You will have to make difficult decisions about what to keep and what to throw out.** (see box in this section). Household goods that have been contaminated by sewage, or that have been wet for a long time, will have to be bagged, tagged and discarded according to local regulations. Take pictures or video of damaged items that must be thrown away. Get rid of garbage and food immediately. Don't let garbage build up.

KEEP OR DISCARD?

You will have to use your judgment, depending on the severity of the flood. As a general rule, throw out anything that has been contaminated by sewage or soaked for a long time.

Keep

- Frames of good quality wood furniture
- Washable clothes
- Valuable papers
- Appliances

Discard

- Mattresses and pillows
- Foam rubber
- Carpets and carpet padding
- Furniture coverings and cushions
- Stuffed animals and baby toys
- Food, cosmetics and medicines (see *STEP FOUR*)
- Particleboard furniture and less expensive items

DRYING

- **Dry out the house and its contents quickly and thoroughly** in order to prevent the growth of moulds and bacteria.
 - **Increase ventilation and decrease humidity:** Open doors and windows to allow moist air to escape. You may want to use dehumidifiers if you have an outside source of power, or if indoor electricity has been safely restored.
 - **Heat your home, if appropriate.** Again, if you have a safe source of power, consider using electric heaters to speed the drying process. Use a natural gas or propane furnace only after it has been checked by a qualified technician. But do not heat the home above the outdoor temperature until all the water has been removed.

CAUTIONS:

- If you are using electrical equipment to clean up in wet or damp locations, use a ground fault circuit interrupter to prevent electric shock.
- **NEVER** use a natural gas oven, range, barbeque, hibachi or portable propane heater to heat your home. These devices use up the oxygen you need to breathe and give off deadly carbon monoxide, which can kill you.
- **Remove flood-soaked insulation in walls.** Do this as soon as possible. Wet insulation holds moisture, encourages the growth of moulds and bacteria and keeps other building materials from drying out properly. Remove insulation at least 50 cm (20 inches) above the high-water line.

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Batt and blown-in insulation cannot be reused. If rigid foam insulation can be removed without breaking, it can be disinfected by wiping with a chlorine solution, then rinsed. Once it is completely dry, it can be reinstalled. If it breaks when being removed, it will have to be taken out, discarded and replaced, so you can reach the wall behind to disinfect it.

Clean the surface of all walls and ceilings, even those above the flood line. They will have been exposed to high humidity levels, which encourage the growth of mould.

- **Dry out and disinfect interior walls.**

- **Plaster walls:** Drain any water by removing the baseboard trim and drilling holes about 5 cm (2 inches) above the floor.
- **Wallboard:** Flood-soaked sections must be removed and thrown away. Remove materials at least 50 cm (20 inches) above the high-water line.
- **Panelled walls:** Pry out the bottom corner of the panelling and prop it away from the wall studs.

Wipe all interior cavities with a disinfecting solution of one part liquid chlorine bleach to four parts water. Allow to dry thoroughly, checking often for mould. If you see or smell mould, wipe the area with the disinfecting solution again. Ensure that cavities are completely dry – this may take weeks – before closing them.

- **Dry out and disinfect floors.** Check for wet floor insulation. If you find any, remove it, then disinfect and dry the floor framing in the same way as the walls (see above). Replace flooring that has been deeply penetrated by floodwater or sewage.

- **Wooden floors:** Soaked floors may buckle, and hardwood floors are more vulnerable to buckling than softwood floors. Too much heat during the drying process may make buckling worse, so let floors dry at a normal temperature. This may take days or even weeks. A wood flooring professional may be helpful to determine the best course of action for preserving your wood flooring.
- **Linoleum, vinyl and tile floors:** These coverings can slow down the drying of the sub-floor below. When water gets underneath linoleum, it can cause odours and warp the wood subfloor. If water has seeped underneath, remove the linoleum. Ask your flooring dealer to suggest a solvent to loosen the linoleum cement without damaging the flooring. Let the floor dry thoroughly before replacing the linoleum.

- **Furniture and cabinets:** Remove flood-damaged furniture to a dry, shady area and allow it to dry slowly. If the furniture is made of solid wood, the damage can usually be fixed, but veneered furniture may be beyond repair.

Remove all doors, drawers, slides and other working parts. Do not force open swollen doors and drawers. Remove the back, cutting it out if necessary, and push out the drawers. Clean drawers and store them away from heat to allow slow drying. If mould forms, wipe the wood with a cloth soaked in a mixture of boric acid and hot water (see package for amounts).

Use a cloth dampened with ammonia or essence of peppermint to remove white spots or scum on furniture exposed to high humidity.

Upholstered furniture, unless it is very valuable or antique, is probably not worth saving. If it is, have it cleaned and disinfected by a professional (listed under Antique Repair & Restoration in the Yellow Pages).

- **Rugs and carpets:** Area rugs, carpets and padding that have been soaked with sewage or floodwaters should be discarded. Those that were exposed to floodwaters for only a brief time may be salvageable. Consult a professional cleaner.
- **Mattresses and bedding:** Discard mattresses, bedding and pillows soaked by floodwaters.
- **Leather goods:** It is best to have leather goods professionally cleaned. As a temporary measure, wash off any mud and dry them slowly away from heat or sunlight. Wipe suitcases, shoes and purses with a damp cloth, then with a dry cloth. Stuff purses and shoes with newspaper to retain their shape. Leave suitcases open. When leather goods are dry, clean with saddle soap.
- **Locks and hinges:** Locks, especially iron ones, should be taken apart, wiped with kerosene and oiled. If locks cannot be removed, squirt machine oil through a bolt opening or keyhole and work the knob to distribute the oil. Hinges should also be thoroughly cleaned and oiled.
- **Clothing:** Do not use your clothes washer until you are sure the water is clean and the sewer line is working. Before using, run the washer through one full cycle with hot water and disinfectant. Hose or shake off muddy items before washing. Cottons and linens soiled with red or yellow clay need to be cleaned carefully. Remove loose dirt, rinse and then wash in warm, soapy water. Do not use hot water, or the stains will set. Wash several times if necessary.

To remove mildew stains, wash the stain with soap and water. Rinse well and dry. If the stain remains, soak the item in a solution of 125 ml (1/2 cup) of household chlorine bleach and 3 litres (3 quarts) of warm water. Never use chlorine on wool or silk – it will dissolve them. Instead, use pine oil disinfectant or sprinkle salt on the stain and then squeeze lemon juice on it.

If you have any questions about cleaning clothing, contact a professional cleaning service (listed under Cleaners in the Yellow Pages).

- **Cooking utensils:** Wash and sterilize dishes and utensils. Soak in boiling water for at least two minutes, or use a sterilizing solution of one part chlorine bleach to four parts water; then rinse dishes and utensils thoroughly, if you are sure household water is clean. Then let them air-dry.

Before using the dishwasher, clean and disinfect it, using water that has been declared safe for drinking. Use the hot water setting to wash pots, pans, dishes and utensils. If you have an energy saving setting, do not use it.

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- **Books, photographs and papers:** Books may be salvaged by slow, careful drying. Do not squeeze. Fan open and air-dry, using fans, or freeze (see below). You may wish to consult a restorer (listed under Photographers in the Yellow Pages) or a conservator (contact information listed below).

To restore damaged computer records, rinse the computer disks in clear water and place them in a plastic bag in the refrigerator. Later, send them to a specialist for restoration (listed in the Yellow Pages under Computer Service, Repair & Cleaning).

Most contemporary photographs, negatives and slides can be air dried, face up. Remove from mounts or plastic sleeves. If stuck together, do not force apart. If they were frozen, thaw and then air-dry them.

To salvage important documents, sharp freeze them immediately. (Look in the Yellow Pages under Warehouses – Cold Storage.) Later, allow them to thaw and lift off each page as it thaws.

Once valuable papers and records are dry, photocopy them because substances in the floodwaters may cause them to deteriorate.

For advice on salvaging books, photographs or paintings damaged by flooding, contact the Canadian Conservation Institute, 1030 Innes Road, Ottawa, Ontario K1A 0M5. Telephone: (613) 998-3721.

- **Appliances:** Do not operate any electrical appliance, heating equipment or other device until it has been thoroughly cleaned, dried and inspected by a qualified technician. Motor windings must be thoroughly dried, and other motor components cleaned before use. You cannot practically change the insulation in most newer appliances or hot water tanks, however, if you decide the cost may be worth it, have an experienced service person replace wet insulation in insulated appliances such as refrigerators, freezers, dishwashers and microwaves. Thoroughly clean and disinfect appliances used in food preparation such as toasters, food processors and kettles.
- **Refrigerators and freezers:** To remove odours from your refrigerator or freezer, wash the inside with a solution of baking soda and water, or use 250 ml (1 cup) of vinegar or household ammonia to 4 litres (1 gallon) water. Place an open box of baking soda or a piece of charcoal in the refrigerator to absorb odour.

CAUTION: When cleaning or discarding a refrigerator or freezer, be sure the doors or locks are removed or secured to prevent a child from being trapped inside.

- **Yards:** As you get rid of things from your house, avoid turning your yard into a dump. Record damaged belongings and determine which ones you need to keep for the insurance adjuster. Promptly remove any food or garbage that might attract animals or insects. If there are concerns about proper disposal of specific, or large amounts of debris, contact your local authority.
- **Hazardous materials:** Dispose of hazardous materials such as solvents, garden chemicals and home cleaning products that have been soaked or that show signs of water damage. Contact your local authority or appropriate provincial ministry to find out how to dispose of hazardous materials properly. Wear rubber gloves, goggles and protective clothing when handling hazardous materials.
- **Lawns:** Lawns usually survive being underwater for up to four days. You may have to replace the lawn if it is covered by mud thicker than 2.5 cm (1 inch) or has been exposed to erosion.
- **Insect control:** Floods can create ideal conditions for mosquitoes to breed. To reduce the problem, drain or remove standing water, clean ditches, empty barrels, old tires and cans, and make sure gutters and downspouts are clean and can drain properly.

MOULDS

Moulds are a type of fungus that thrives in warm, moist conditions. They can aggravate allergies and asthma, and cause other serious health problems. Act quickly and persistently to get rid of moulds. The secret is to clean and dry all surfaces as soon as possible. Wipe the affected area with a solution of one part liquid chlorine bleach to four parts water, and dry it thoroughly.

Protect yourself by wearing rubber gloves and a face mask while cleaning, and wash your hands after with soap and warm water.