



How To Dry Out Your Home

This packet is meant to provide basic information to people who have experienced flooding and water damage to their home.

Floodwaters Affect A House In 3 Ways:

1. The water damages materials. Wallboard will disintegrate if it stays wet too long; wood can swell, warp, or rot; electrical parts can short out, malfunction, and cause fires or shock.
2. Mud, silt, and unknown contaminants in the water not only get everything dirty; they are also unhealthy.
3. Dampness promotes the growth of mildew, a mold or fungus that can grow on everything.

The following steps work on all three of these problems. It is very important to do these steps in order.

Lower The Humidity:

Everything will dry more quickly and clean more easily if you can reduce the humidity in the house. There are many ways to lower the humidity and stop the rot and mildew. But you'll have to delay using some methods if you have no electricity.

- **Open up the house.** If the humidity outside is lower than it is indoors, and if the weather permits, open all the doors and windows to exchange the moist indoor air for drier outdoor air. Your body will tell you if the humidity is lower outdoors. If the sun is out, it should be drier outside. If you have a thermometer with a humidity gauge, you can monitor the indoor and outdoor humidity.
- On the other hand, when temperatures drop at night, an open house is warmer and will draw moisture indoors. At night, and at other times when the humidity is higher outdoors, close up the house.
- **Open closet and cabinet doors.** Remove drawers to let air circulate. Drawers may stick because of swelling. Don't try to force them. Help them dry by opening up the back of the cabinet so air can get into it. You will probably be able to remove the drawers as the cabinet dries out.
- **Use fans.** Fans help move the air and dry out your home. Do not use central air conditioning or the furnace blower if the ducts were under water. They will blow out dirty air that might contain contaminants from the sediment left in the ductwork. Clean or hose out the ducts first.
- **Run dehumidifiers.** Dehumidifiers and window air conditioners will reduce the moisture, especially in closed-up areas.

- **Use desiccants.** Desiccants (materials that absorb moisture) are very useful in drying closets or other closed areas where air cannot move through. Desiccants like those listed below are usually available at hardware, grocery, or drug stores.
 - Chemical dehumidifier packs used for drying boats and damp closets.
 - Cat litter made of clay.
 - Calcium chloride pellets (used to melt ice in the winter). Hang pellets in a pillowcase, nylon stocking, or other porous bag. Put a bucket underneath to catch dripping water. Close the closet or area being dried. Be careful. Calcium chloride can burn your skin. It will also make the air salty, so do not use this product near computers or other delicate equipment.
- **Call a contractor.** There are contractors who specialize in drying out flooded buildings. They have large fans and dehumidifiers that can dry out a house in a few days. Look in the yellow pages under Fire and Water Damage Restoration or under Dehumidifying. Be careful about contractors who inflate prices after a disaster and about out-of-town contractors who request payment in advance.

Be patient. Drying your house could take several weeks. Until your house is reasonably dry, damage caused by mildew and decay will continue. The musty odor will stay forever if the house is not dried out well.

Sort Contents and Discard Debris

You have three types of contents. They should go to three different places:

- Items you want to save
- Items to be thrown out
- Garbage

Things You Want to Save

Move things you want to save to a safe, dry place, such as the second story or outside. The longer they sit in water, the more damaged they become. Don't leave wood furniture in the sun because it will warp as it dries. To save an area rug, lay a sheet or some other material on top of it before you roll it up so the colors will not bleed. Clean it promptly.

Things You Don't Want to Save

Put things you don't want to save outside to dry until the adjuster comes to confirm your losses. Take pictures or videotapes and list each item for the record.

Garbage

Get rid of food and anything else that could spoil or go bad immediately. Do not let garbage build up. Garbage piles will cause yet another health hazard by attracting animals and insects. If your insurance adjuster has not come, tell your agent or adjuster that you need to get rid of potential health hazards. That person will tell you how to make sure that your losses are covered. Then throw the stuff out, preferably in sealed plastic garbage bags.

Do not take chances with frozen food if the electricity went off unless the food is still thoroughly frozen and contains ice crystals. As a rule, food will remain frozen for up to 3 days in a closed freezer without power. Do not refreeze thawed food. However, you can cook raw meat that was partially thawed and then freeze it.

Dispose of discarded items properly. Do not burn or bury them. There will usually be more frequent garbage pickups after a flood. Your local newspapers or local TV and radio stations will have announcements about trash pickup schedules and drop-off sites.

How Floodwaters Affect Your Home

Once contents and debris have been cleared, the next step is to get the water out of the ceilings and walls. How you drain and dry your ceilings and walls depends on what they are made of.

Wallboard

Most ceilings and walls are covered with wallboard, especially in newer homes. Wallboard acts like a sponge, drawing water up above the flood level. It becomes very fragile if it stays wet for long and will fall apart when bumped. When the wallboard finally dries, there will still be mud and contaminants dried inside.

Wallboard that has been soaked by floodwater can be a permanent health hazard. Therefore, this booklet recommends that you throw out flooded wallboard. On the other hand, if the wallboard was soaked by clean rainwater, it can be dried in place with plenty of fresh air moving through the area.

Plaster

Plaster will survive a flood better than wallboard. You should not need to replace it, but it will take a very long time to dry.

Sometimes the plaster will separate from its wood laths as it dries. Then the wall will have to be removed and replaced.

Insulation

There are three main types of insulation, and each reacts differently to floodwaters. Styrofoam survives best; it may only need to be hosed off.

Fiberglass batts should be thrown out if they are muddy. If soaked by clean rainwater, remove them so the rest of the wall can dry. They can be put back in the wall, but it will take a very long time for them to dry.

Cellulose (loose or blown-in treated paper) insulation holds water for a long time. It can also lose its anti-fungal and fire retardant abilities. Therefore, flooded cellulose insulation should be replaced.

Wood

If it is allowed to dry naturally, wood will usually regain its original shape. Different layers of laminated wood, such as plywood, may dry at different rates, and that may cause the layers to separate.

Some contaminants will stay in the wood after it dries, but not as much as stays in flooded wallboard. Wood studs and sills will be covered by new wallboard and painted, so they are well removed from human contact. Therefore, wet wood studs and sills do not need to be replaced if they are allowed to dry properly.

Drain the Ceilings and Walls

Ceilings

Check for sagging ceilings. Drain them carefully. If the floodwaters went above your ceiling, you should replace it if it is made of wallboard. A plaster ceiling will dry eventually, but if it has too many cracks or

sags, you will have to tear it down and replace it. Remove any wet insulation in the ceiling to allow the joists to dry.

Walls

Remove water trapped within your walls. To check for water, take off the baseboard. Stick an awl or knife into the wall about 2 inches above the floor (just above the 2 x 4 wood sill plate). If water drips out, cut or drill a hole large enough to allow water to drain freely. (Use a hand or cordless drill or saw to avoid shock.) If you are going to replace the wallboard anyway, you don't have to be neat: use a hammer to knock out a hole.

If your walls are plaster, a knife won't penetrate them. Drill a hole above the sill plate to drain the water. (Use a hand or cordless drill to avoid shock.) Do not use a hammer or chisel on plaster because the plaster could shatter.

In a newer home, you may have metal sill plates. A metal sill acts as a gutter at the bottom of the wall cavity. Drill a hole at floor level to drain the water, using a hand or cordless drill.

Repeat the process to drain all the wall cavities. Depending on the spacing between studs in your walls, make a hole every 16 inches or every 24 inches. Watch out for the wiring, which is usually at the same height as your electrical outlets. If there is wet insulation, you will have to remove the wallboard in order to take out all the insulation.

Dry the Ceilings and Walls

Flood-soaked wallboard should be removed and thrown away. Plaster and paneling can often be saved, but you still need to get air circulating in the wall cavities to dry the studs and sills. Different approaches are used for different materials.

Wallboard

If dirty floodwaters soaked the wallboard at least 4 feet above the floor, take down all the wallboard and replace it. If the water was less than 4 feet deep, remove the lower 4 feet of wallboard. You can fill the gap with new 4 ft. x 8 ft. Wallboard sheets installed sideways. If you have Styrofoam insulation ---or no insulation---and the wallboard was soaked with clean rainwater, you can dry the walls without removing the wallboard by using the technique explained below for plaster walls. But you will need to remove wet insulation if it is not Styrofoam.

Plaster Walls

If the plaster or wallboard is clean and in good shape, you can drill or cut ventilating holes in each wall cavity. Place holes low enough so they will be covered by the baseboard after the wall dries out. Open up the wall on both sides of interior walls. For exterior walls, drill or cut holes only on the inside of the house. However, if there is wet insulation, you will have to remove the plaster or wallboard in order to take out all the insulation.

Concrete Block

The cavities in a concrete block wall will drain on their own. The water will not damage the concrete like it will wood or wallboard.

Wall Covering

Vinyl wall covering seals the wall and keeps it from drying out. Wallpaper paste is also a favorite home for mold and mildew. For these reasons, you should remove all wall covering that got wet and throw it out. (If vinyl wall covering is loose on the bottom, you may be able to save it by pulling it off the wall up to the flood level. Clean and reapply it after everything dries).

Paneling

Carefully pry the bottom of each panel away from the wall Use something to hold the bottom away from the sill so the cavities can drain and dry out. You can nail them back into shape after they and the studs dry out. However, if there is wet insulation, you will have to remove the paneling in order to take out all the insulation.

Dry the Floor

Air needs to move around flooded floors so they can dry out. This usually means that you must remove the floor covering. Because floodwaters contain mud and dirt, most soaked floor coverings should be thrown away. Keep a piece of all discarded floor covering so the adjuster can tell its value.

Air needs to circulate below the floor to dry it out. If the crawl space of your house is flooded, pump it out. Remove any plastic sheets, vapor barriers, or insulation from underneath the floor. (Be sure to replace them when the floor and foundation are completely dry.)

If a house with a basement was flooded over the first floor, remove finished basement ceilings, or cut or drill holes between all the joists to allow circulation. Don't cut or drill near electric lines or pipes.

You have now reached the stage where your home should be protected from further damage. Outside holes have been patched, the utilities have been turned off, and the drying process has started. It may take days or weeks, depending on the humidity, for all the wood and walls to dry out. Patience now will prevent you having to do everything over again.

Allegheny County Health Department
Housing and Community Environment Program
3190 Sassafras Way
Pittsburgh, PA 15201-1443
412-350-4046 (or 412-687-ACHD 24-hours a day)