



# Damp Indoor Environments Health Symptoms and Clean-Up

## Should I live in my home if it has a flooded basement?

Aside from safety issues, standing water in your basement will promote a damp indoor environment. Damp indoor environments favor house dust mites and microbial growth and also support cockroach and rodent infestation. Moisture may also initiate chemical emissions from building materials and furnishings. Health symptoms associated with or may be associated with exposure to damp indoor environments include upper respiratory (nose and throat) tract symptoms, cough, wheeze, shortness of breath, lower respiratory illness in otherwise healthy children, asthma symptoms in sensitized individuals and possibly asthma development.

## What should I do once the water is gone?

### 1. Dry your home

Be patient. The drying process could take several weeks, and growth of microorganisms will continue as long as humidity is high. If the house is not dried properly, a musty odor, signifying growth of microorganisms can remain long after the flood.

### 2. Remove wet materials

It can be difficult to throw away items in a home, particularly those with sentimental value. However, keeping certain items soaked by water may be unhealthy. Some materials tend to absorb and keep water more than others. In general, materials that are wet and cannot be thoroughly cleaned and dried within 24-48 hours should be discarded, as they can remain a source of microbial growth.

In addition, fiberboard, fibrous insulation and disposable filters should be replaced, if they are present in your heating and air conditioning system and have contacted water. (If a filter was designed to be cleaned with water and was in contact with clean rainwater only, ensure it is thoroughly cleaned before reinstalling).

Upholstered furniture, fabric, paper goods, clothing, bedding and furniture made from pressed wood that have gotten wet are very difficult to thoroughly decontaminate. They will also support the growth of mold and mildew unless they are dried very quickly. In most situations, the safest course of action is to discard these items.

Rugs and wall-to-wall carpeting must be removed from the floors that were flooded. Rugs may be salvaged if the excess water is removed from them, and they are then washed (if they are small enough) or professionally cleaned (for very large rugs). The rugs should be dried immediately to prevent mold from growing on them. Carpeting (and the underlying padding) that has been flooded should be removed and thrown away because it is very difficult to get the carpet completely clean and dry. This is especially important if the carpeting has been exposed to sewage contamination, or if the flood water deposits a layer of mud on it.

Concrete or tile floors and concrete block walls must be washed with soap and water to remove as much of the flood residue (muck) as possible. Then, rinse these surfaces with a solution that contains 1 cup of bleach to a gallon of water. Soak up the excess water. Then, place fans in the room and open the windows so the surfaces can dry.

Wallboard and wooden baseboards and paneling that have gotten wet must be removed and discarded. The water they have absorbed could speed the growth of mold and other harmful microorganisms, and it causes the material to become structurally unsound.

Wash non-porous materials such as dishes, toys, tools and other household goods in hot, soapy water. Rinse them in a solution of 1 cup of household bleach to one gallon of water. Allow the objects to air dry.

It's very important to get the flooded area as dry as possible as quickly as possible. Open the windows and use the largest fans available to push the humid air from the formerly flooded area.

### **How can I avoid dangers from the use of cleaners or disinfectants?**

The cleanup process involves thorough washing and disinfecting of the walls, floors, closets, shelves and contents of the house. In most cases, common household cleaning products and disinfectants are used for this task. The Federal Emergency Management Agency also suggests the use of disinfectants and sanitizers on the ductwork for the heating and air conditioning system, if it has been flooded. Disinfectants and sanitizers contain toxic substances. The ability of chemicals in other household products used for cleaning to cause health effects varies greatly, from those with no known health effect to those highly toxic. Read and follow label instructions carefully, and provide fresh air by opening windows and doors. If it is safe for you to use electricity and the home is dry, use fans both during and after the use of disinfecting, cleaning and sanitizing products.

Be careful about mixing household cleaners and disinfectants together. Check labels for cautions on this. Mixing certain types of products can produce toxic fumes and result in injury, and even death.

### **How do I avoid carbon monoxide poisoning?**

Carbon monoxide (CO) is a colorless, odorless gas that can be lethal at high levels. Carbon monoxide levels can build up rapidly if certain types of combustion devices (for example, gasoline-powered generators, camp stoves and lanterns, or charcoal-burning devices) are used indoors. Do not use combustion devices designed for outdoor use indoors.

**For additional information contact the Ohio Department of Health at 1-614-466-1390 or contact your local health department.**

**Local Health Department Contact Information:**