

Preparing for a Water Emergency

We can rarely predict when an emergency will strike. Situations such as an earthquake, winter storm, or broken water lines may deny families and entire communities of water and electricity for days, or even weeks. *Always* listen to and follow cautions and guidelines distributed by local hospitals, health departments and emergency preparedness centers. However, by taking some simple precautions prior to these situations, undue anxiety can be minimized.

An ample supply of clean, safe water is a *top* priority. A healthy, active adult should drink at least two quarts of water each day. Nursing mothers, children and the ill need additional water. It is recommended that ***at least one gallon of water per person per day be stored*** for emergency situations. The amount of water needed can be minimized by reducing activity and staying cool.

How to Store Water

Type of Container: food-grade plastics, glass, fiberglass or enamel-lined metal that has been *thoroughly* washed. Soft drink bottles are great! *Never* use a container that has previously contained a toxic substance.

Type of Seal: tight! Be sure to label containers along with the date filled.

Location: in a cool, dark place easily accessible by family members. Be sure *everyone* in the family knows the location.

Storage time frame: rotate water every six months. Be sure to change the date when the water is rotated.

Hidden Water Sources in and around the Home

If you hear of broken water lines or sewage lines, shut off the incoming water valve to your house immediately. Water already in the pipes in your home can be used unless it is already contaminated. To use the water, let air into the plumbing at the highest level by turning on the faucet. Go to the lowest faucet in the house, and turn it on to obtain the usable water.

Other locations of water include the hot water tank, ice cubes and water stored in the freezer and/or refrigerator. To use the water in the hot water tank, be sure the electricity or gas is off. Open the drain at the bottom of the tank and turn off the water intake valve. Turn on a hot water faucet and the water will begin to flow. If at all possible, do not drain all the water from the tank. Also, as a last resort, use the water in the reservoir tank of your toilet.

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Some emergency outdoor water sources include rain water, streams, rivers, ponds, lakes and natural springs. Be sure to purify the water according to instructions below. Avoid using the water if it has floating material, an odor or dark color. *Do not drink flood water.* Distill saltwater before drinking it.

Ways to Purify Water

If in doubt, all water used for drinking, food preparation and hygiene should be purified. There are many ways to purify water. There is no perfect technique. Sometimes the best way is a combination of methods. Boiling and disinfection will kill most bacteria but will not remove contaminants such as heavy metals, salt, pesticides and other chemicals. Before purifying, *always* let any suspended particles settle to the bottom of the container or strain them out through several layers of paper towel or a clean, colorfast cloth.

Boiling This is the safest method of purifying water. Bring water to a rolling boil (water bubbling on the surface) for 3 to 5 minutes. Let it cool before drinking. Boiled water will taste better if some of the oxygen is put back in it. This can be done by pouring the water back and forth between two clean containers. (This technique also works to improve the flavor of stored water.)

Disinfection This technique is designed to kill most all microorganisms. Use *only* regular household liquid bleach (Clorox®, Purex®, etc.) that contains 5.25 percent sodium hypochlorite. DO NOT USE liquid bleaches with added cleaners or scents. DO NOT USE colorsafe bleaches (Clorox II®, Snowy®, etc.). Other products such as iodine and water treatment products are not recommended for this technique.

Use 16 drops of bleach per gallon of water. Stir and let stand for 30 minutes. If the water does not have a slight bleach odor, repeat the dosage and let stand another 15 minutes.

Distillation This technique will remove microbes that resist either of the two methods given above. It will also remove heavy metals, salts and most other chemicals.

Fill a deep pot approximately half full of water. Tie or suspend a cup to the handle of the lid so that the cup will hang right-side up when the lid is upside down. (Be sure the cup is not dangling into/touching the surface of the water.) Boil the water for 20 minutes. The water that drips from the lid into the cup is distilled.

Note: The use of brand names in no way recommends or endorses the product, but is used to provide examples found in the marketplace.

References

Food and Water in an Emergency, publication developed by the Federal Emergency Management Agency in cooperation with the American Red Cross and the U.S. Department of Agriculture. November 1994.