



Emergency Water Supplies

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Clean drinking water is a top priority in any disaster preparation program. Storing several days worth of emergency water is a reasonable thing for all of us to do. It is also good to know how to disinfect water after an emergency. Save this fact sheet in your disaster supply kit.

Storing Water Before an Emergency

Do I need to disinfect water before storing it?

Tap water from a public water treatment facility does not need to be disinfected before it is stored. But, do not store water from any other source, including a home water well. It may contain bacteria that could multiply in stored water containers. If such "raw" or untreated water is stored, it must be disinfected at the time of use for drinking or food preparation.

How much water should I store?

- **Store at least one gallon of water per person per day.** A normally active person needs to drink at least two quarts (half gallon) of water each day. Hot weather and high activity (like cleaning up after an emergency) can greatly increase the need.
- A three-day supply, or three gallons per person, is recommended as a minimum.
- If your supplies run low, don't ration water. Drink the amount you need today and try to find more for tomorrow.
- You can minimize the amount of water your body needs by reducing activity and staying cool.
- You will need additional water for food preparation, personal hygiene, and pets.

What type of containers should I use?

- It is safe to store water in thoroughly washed, drinking-water grade plastic, fiberglass, or enamel-lined metal containers. Two-liter soft drink bottles work well, but milk jugs are difficult to clean and become brittle in time. There is a breakage risk for glass.

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- As an extra measure of safety, rinse containers with a dilute solution of household bleach after they have been cleaned. Add a few drops of plain, unscented household bleach, add tap water, shake, let sit 20 minutes, empty, and then rinse with tap water before filling.
- Never use a container that has held toxic substances.
- Another option is to purchase bottled drinking water.

How long will stored water stay safe to drink?

Purified, disinfected water in suitable containers can be stored indefinitely. It is best, however, to store your containers in a cool, dark place and replace them every six months.

Disinfecting Water After an Emergency

How can I purify contaminated or questionable water?

Following are three easy ways to disinfect water. These methods will kill microbes, the most frequent risk of contamination, but they will not remove other contaminants that may appear in water after an emergency, such as nitrate, toxic materials, or radioactive fallout.

Before disinfecting, let the containers stand so suspended particles can settle to the bottom, or filter the water through coffee filters, layers of paper towels, or a clean cloth. Note: Common household, camping, and refrigerator-type water filters can be useful for filtering cloudy water, but they are not adequate to remove all microbes.

1. Boiling is the safest method for disinfecting water. Bring water to a rolling boil for three to five minutes. Boiled water tastes flat. It will taste better if you add air after it cools by pouring the water back and forth between two containers.
2. You can use household liquid bleach to disinfect drinking water. Do not use scented bleach, color-safe bleach, or bleach with added cleaners. Use only regular bleach that contains 5.25 percent sodium hypochlorite. Add 16 drops of bleach per gallon of water, stir, and let the water stand 30 minutes before use. If the water does not have a slight bleach odor, repeat the treatment and let stand another 15 minutes.

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3. Disinfection tablets can be purchased and stored with emergency supplies ahead of time. They are inexpensive and available at most sporting goods stores and some drugstores. Follow the package directions. Usually one tablet is enough for one quart of water. Double the dose for cloudy water.

Alternative Sources of Water in the Home

- You can use the water from your hot water tank, your plumbing, or ice cubes in an emergency. As a last resort, you can even use water from the reservoir tank of your toilet (not the bowl), but disinfect it first.
- To use the water in your pipes, first shut off the main entry valve to the house and turn off the electricity or gas to the water heater. Let air into the plumbing by opening the highest faucet in your house. Then drain the water from the lowest faucet.

- To use the water from your hot water tank, be sure the electricity or gas is off. Start the water flowing by opening the drain at the bottom of the tank, and then opening any hot water faucet. You will probably need to connect a garden hose to the tank drain. Never turn on the gas or electricity if the tank is empty.
- A waterbed may hold up to 400 gallons, but some contain toxic chemicals that are not removed by the emergency disinfection procedure. If you designate a waterbed in your home as an emergency source of water, drain it yearly and refill it with fresh water containing two ounces of bleach per 120 gallons.

Emergency Outdoor Water Sources

If you need to find water outside your home, try capturing rainwater or using streams, rivers, ponds, lakes, or natural springs. Water from any of these sources must be disinfected before drinking or used in food preparation. Avoid water with floating material, odor, or dark color.

This fact sheet is adapted from the Federal Emergency Management Agency website, www.fema.gov; and the American Red Cross website, www.redcross.org.

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