



Cornell University Cooperative Extension of Delaware County

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WATER IN AN EMERGENCY

The body's most important need is for water. Most people could live a long time without food as long as they had some water.

Each person will need a gallon of water per day for 3 or 4 days. If warning of disaster has been given, fill large, clean containers and bathtubs with water. Ice, soft drinks and fruit juices serve as water substitutes in emergencies.

After a natural disaster, consider all water from wells, cisterns and other delivery systems in the disaster area unsafe until tested. Most homes today have a reserve supply of water built into them. Your hot water heater or water pressure tank would supply many gallons of emergency water. First, turn off the electric at the circuit breaker for the water heater. Turn off the gas at the intake valve or turn off the electric at the circuit breaker for the water heater, or unplug the unit. You can obtain water by opening the drain valve at the bottom of the tank. Pipes and plumbing carry several gallons. Toilet tanks, (not bowls) also have a fresh water supply. When power is restored and the tank refills with water, turn on the gas or electric to heat the water.

In the event of any major disaster affecting area water, you can prevent contaminated water from entering your house by closing the main water valve. To use the water still in the pipes, turn on the faucet that is located at the highest point in your house. This lets air into the system. Now you can draw water as needed from the faucet that is located in the lowest point in the house. If the main water valve is closed, be sure that electric or gas to heat the water is turned off to prevent overheating.

When a safe supply of water is not available, or if, due to the disaster, your usual supply becomes unsafe for drinking, you must treat the water before it can be used for drinking, cooking, or brushing teeth. There are two ways of treating water: boiling or adding bleach. If the supply has been made unsafe because of untreated surface water (floods, streams, or lakes), boiling is the better treatment.

If the water looks cloudy, it should be filtered before treating. You may use coffee filters, towels (paper or cotton), cheese cloth, a cotton lug in a funnel, etc. Use several layers for best results. You can also use filters designed for camping and backpacking.

Boiling

Boiling is the best way to purify water that is unsafe because of bacteria. Place the water in a clean container and bring to a full boil and continue boiling for at least 3 minutes. If you are 5,000 feet or more above sea level, increase the boiling time to at least 5 minutes. Boiled water should be kept covered while cooling.

Purifying By Adding Liquid Bleach

If boiling is not possible because of lack of fuel, electricity, or equipment, the water can be treated with liquid household chlorine bleach (such as Clorox, Purex, etc) which contains 5.25% sodium hypochlorite. Do not use scented or “color-safe” bleaches or bleaches with added cleaners.

Place the water (filtered if necessary) in a clean container and add bleach. For each gallon of water, add 16 drops of bleach or about one-fourth teaspoon. Two-liter soft drink bottles are about one-half gallon in size; use 8 drops or 1/8 teaspoon bleach for each of these bottles. Mix the water and bleach thoroughly and allow to stand for at least 30 minutes before using the water. If the water is cloudy, or very cold, increase the standing time to 60 minutes before using. If the water does not have a slight bleach odor after standing, repeat the bleach treatment and let stand another 15 minutes.

Note: Chlorine will not kill parasites such as Cryptosporidium or Giardia, which may be present in flood waters. Parasites can cause severe illness in persons who are weakened because of health problems. Boiling is the best treatment in these situations.

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