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Photo Credit: NOAA

# Living Through a Disaster: Ensuring a Safe Drinking Water Supply

The enormous scale of the disaster caused by Hurricane Katrina has once again highlighted the importance of safe drinking water. Often, the availability of a safe drinking water supply is the difference between life and death. Disasters can contaminate or destroy previously safe drinking water supplies. Under severe conditions, your knowledge of what to do is your lifeline while you wait for safe water supplies to be restored. Here are some steps you can take to ensure your survival.

1. Locate a temporary source of water, even if it is contaminated.
2. Purify your temporary source. See below for ways to disinfect your water.
3. Conserve what you have and drink only when you are thirsty to meet your body's needs.

## Outdoor Water Sources

If you don't have any water in your home, or if your home is destroyed, you can find water in streams, rivers, lakes, ponds, and natural springs. Also, don't forget rainwater as a source.



Photo Credit: NOAA

Floodwater is often contaminated. Try to avoid water with floating debris or with a foul odor or dark color. Use saltwater only if you distill it first. Seek water that looks and smells clean. However, you must remember that even though water looks good, you have to assume that it is contaminated. Always disinfect water of unknown quality.

## Disinfecting Emergency Supply Water

Microorganisms present in water can cause serious disease and even lead to death. Disinfect your emergency supply before using it for food preparation, drinking, or for hygiene purposes. There are several methods to disinfect water. It is advisable to use a combination of disinfection techniques for maximum assurance. These measures are for temporary use in an emergency. Although they can kill most microorganisms, they will not remove other contaminants, such as metals or other chemicals that may have entered the water.

1. **Boiling.** Boiling is the safest method to disinfect water. Boil vigorously for 3 minutes (5 minutes or longer at high altitudes). Let the water cool before drinking. You must let the water cool before you chlorinate it or the chlorine will not work.

- 2. Chlorination.** Chlorine found in regular household bleach is a good disinfectant. Don't use scented bleach or bleach with added cleaners. Add 16 drops of bleach to a gallon of water, stir, and let it stand for 30 minutes. If the water doesn't have a bleach odor after this time, add another 16 drops and wait another 15 minutes. If the water does not have a bleach odor after 15 minutes, discard the water and find another source.
- 3. Distillation.** If you have a heat source, this method not only kills microorganisms, but also removes other contaminants, like metals. To distill water, boil it and collect the vapor that condenses. There are several ways to make a crude water still. One is to boil water in a pot that has a lid. Position the lid so that it is separated from the pot and tilted to one side. Put a cup under the low side and collect the water that drips into the cup.

## Drinking What You Need

There are many recommendations for how much water you should drink each day. The National Institute of Medicine recently reported that if you drink to quench your thirst, you will consume an adequate amount. In a disaster, you may need to conserve your supply of safe water until help arrives. However, don't deprive yourself; your body needs water to function properly.

If you are caught in a disaster without safe drinking water, follow these steps to ensure survival:

- 1.** Locate a source of water
- 2.** Disinfect the water
- 3.** Drink as you need to.

Safe drinking water is often a casualty of disasters. Drinking unsanitary water can compound losses caused by a catastrophe. Knowing how to protect yourself and those around you until clean water is available is important and a major step toward recovery.

**For more information, please go to the Federal Emergency Management Agency Web site, [www.fema.org](http://www.fema.org).**