



## Disinfecting Water after a Disaster

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After a disaster such as a hurricane or flood, your water supplies may have become contaminated or been temporarily cut off. To make sure the water you are using is safe for you and your family, follow these guidelines:

- Listen to and follow public announcements from your local authorities. They will tell you if your tap water is safe to drink or use for cooking and bathing.
- **If the water is not safe, use only bottled water, or boil or disinfect your water for cooking, cleaning or bathing.**
- Until your water supply is tested and found safe, use only bottled, boiled or treated water for drinking, cooking, washing dishes, cleaning, brushing your teeth, washing your hands and bathing.
- If water is limited, use an alcohol-based hand sanitizer to wash your hands.

### How to disinfect water

Boiling water is the best way to kill harmful things that can make you and your family sick. Use clean containers (where possible) and follow these steps to creating safe drinking water:

1. Strain the water through a clean cloth, coffee filter or paper towel into a container to remove any sediment or floating matter.
2. Boil the water vigorously for at least 1 minute.
3. After it cools, the water is ready to use. To improve the taste, you may add a pinch of salt to each quart of boiled water, or pour the water back and forth from one clean container to another several times.

### Using chemicals

If boiling water is not possible, strain the water as in listed in step 1 above, then disinfect it with bleach or iodine, whichever is available:

**Liquid chlorine bleach** (from the home laundry or grocery store). Use common, unscented household laundry bleach. Read the label to find percentage of chlorine and follow this table:

Available chlorine	Drops to be added per quart	
	Clear water	Cloudy water
1 percent	10	20
4 to 6 percent	2	4
7 to 10 percent	1	2

1. Add bleach to water and stir or shake container thoroughly.
2. Let the water stand for 30 minutes. If a slight chlorine odor is detectable, the water should be safe.
3. If a slight chlorine odor is not detectable in the water, repeat the dosage and let the water stand for 15 more minutes before using it.

***Tincture of iodine*** (from a medicine chest or first aid kit).

1. For clear water, add 5 drops of iodine per quart of water. If the water is cloudy, add 10 drops of iodine per quart of water.
2. Let the mixture stand for 30 minutes, after which time water should be safe to use.

### **Private water supplies**

If you have your own water supply, such as a well, cistern, spring or other private source, ask your health department or local county office of Texas Cooperative Extension to inspect it for sanitary quality and to show you how to keep it safe.

You should also have your water tested for the presence of disease-causing bacteria, such as total or fecal coliforms or *E. coli*. Many diseases are associated with consumption of water contaminated by these and other bacteria. If your water system is properly built and maintained, you can be confident that, under normal conditions, your water is safe to drink.

However, under emergency or disaster conditions, particularly during floods, these sources may become dangerous to use. Unless you are assured otherwise by test results, *no water should be presumed safe, and all water should be disinfected during such emergencies.*

### **Emergency sources of water**

If water is hard to find, try:

- **Water sources in and around your home**

Water heaters: Turn off the power that heats the tank and let the tank cool. Place a container under the tank and open the drain valve at the bottom. Don't turn the tank back on until utility services are restored.

Toilet tank: The water in the tank (not the bowl) is safe to drink unless chemical treatments have been added.

Water pipes: Release the air pressure into the plumbing system by turning on the faucet at the highest point in the house. Then drain the water from the lowest faucet.

Outside: Rainwater and water from coiled garden hoses can be used after it is disinfected.

- **Other water sources**

If it is necessary to select an emergency water source, remember that underground water, such as that obtained from wells or springs, is less likely than water from surface sources to contain contamination harmful to your health.

However, if underground water is not available, surface water from a creek, river, lake or pond, in that order, may be used.

Avoid water having a dark color or an odor or containing floating materials, since such things may indicate pollution. If possible, obtain surface water upstream from inhabited areas and dip it from below the surface.

Remember to *disinfect all water before consuming it when you are unsure of its quality.*

**Do not disinfect or drink water when it:**

- Is dark in color
- Has an odor
- Contains floating material
- Contains chemicals from a spill such as oil or gas

**Storing water in containers**

Store disinfected water in clean, sanitary glass or plastic containers. Plastic containers are good because they are lightweight and unbreakable. Don't use metal containers because they may corrode and give water an unpleasant taste.

**How much water do I need to drink each day?**

Because water is so important to human survival, never ration it. Drink at least 2 quarts per day as long as supplies last.

This information was excerpted and adapted from resources from the University of Idaho, the University of Missouri and the University of Tennessee Institute of Agriculture and from <http://www.fema.gov/rrr/waterf.shtm>, <http://www.bt.cdc.gov/disasters/foodwater.asp>, and [http://www.lsuagcenter.com/en/family\\_home/hazards\\_and\\_threats/publications/be+safe+stay+healthy+after+a+disaster.htm](http://www.lsuagcenter.com/en/family_home/hazards_and_threats/publications/be+safe+stay+healthy+after+a+disaster.htm).

Produced by Agricultural Communications, The Texas A&M University System

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Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas Cooperative Extension, The Texas A&M University System.