

Ohio State University Extension

Food, Agricultural and Biological Engineering

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Emergency Disinfection of Water Supplies

AEX-317-91

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Floods, storms and extended power failures can make it impossible to use your well for a drinking water supply. When traveling or camping, you may have to use water from a unsanitary supply for drinking. How can you ensure you do not get sick from drinking contaminated water?

Boiling is extremely effective in disinfecting water. Vigorous boiling **for one minute** kills bacteria, including disease-causing organisms and giardia cysts (which cause severe gastrointestinal illness). Any heat source, such as an electric or gas range, camp stove or wood fire can be used to boil water. Even microwave ovens can heat water to boiling. Tincture of iodine from a home medicine chest may be used to disinfect water. Follow these guidelines:

	Number of Drops* of Tincture of Iodine	
Volume of Water	Clean Water	Cloudy Water
One quart	5	10
One gallon	20	40
Mix water thoroughly and let stand for 30 minutes.		
*5 drops = 1/3 of 1/8 teaspoon 10 drops = 2/3 of 1/8 teaspoon 20 drops = 2/3 of 1/4 teaspoon 40 drops = 1/4 teaspoon plus 1/3 of 1/4 teaspoon		

A few drops of chlorine bleach can be added to a gallon of water in an emergency or on a camping trip. Use these measurements:

Available Chlorine in Bleach	Number of Drops* of Chlorine Bleach to Disinfect One Gallon of Water	
	Clean Water	Cloudy Water
5.25%	8	16
Mix water thoroughly and let stand for 30 minutes.		
*8 drops = 1/2 of 1/8 teaspoon 16 drops = 1/8 teaspoon		

Chlorine and iodine tablets are available in drug stores and camping or sporting goods stores. Follow the directions on the container. Store disinfected water in clean, covered containers. All water used for drinking, cooking, preparing beverages and brushing teeth should be disinfected. For more information on disinfection of water systems, call or visit your county Extension office and ask for Bulletin 765, Bacteria in Drinking Water.

Funded in whole or in part from Grant Number U05/CCU506070-01, "Cooperative Agreement Program for Agricultural Health Promotion Systems," and National Institute for Occupational Safety and Health.

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