

# EMERGENCY METHODS OF DISINFECTING WATER

If your drinking water is reported to be contaminated or if your well or spring water becomes discolored, or if your well or spring water source is submerged under floodwater, disinfection of drinking water should be accomplished using one of the following methods:

## LAUNDRY BLEACH:

Household laundry bleaches such as Clorox or Purex usually contain 5% available chlorine. These bleaches may be used to disinfect water in accordance with the table: Only "regular" bleach should be used, not the scented versions. After the bleach is added, it should be mixed well with the water and held for 30 minutes before being used for drinking, cooking, and other household purposes

## DOSAGE OF BLEACH SOLUTION

Quantity of water	Clear Water	Cloudy Water
1 quart	2 drops	4 drops
1/2 gallon	4 drops	8 drops
1 gallon	8 drops	16 drops
2 gallons	16 drops	32 drops
3 gallons	1/4 teaspoon	1/2 teaspoon
5 gallons	1/2 teaspoon	1 teaspoon
50 gallons	1/2 ounce	1 ounce

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**IODINE:** Tincture of Iodine 2 percent obtained from drug stores is an effective germicide. It may be used for disinfecting water in the proportions of five drops per quart of clear water or 10 drops per quart of cloudy or turbid water. Allow the water to stand 30 minutes before using.

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**BOILING:** Heating the water to boiling for a period of ten minutes will destroy disease-producing organisms. If, after cooling, the water has a flat taste, aerating will restore the flavor. This may be accomplished by pouring several times from one container to another. A pinch of salt to each gallon of water will also aid in restoring taste.

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**FILTERING:** Filtration or straining is not effective for complete bacteriological decontamination of water. A fine filter is necessary if river or stream water is to be consumed to remove large organisms such as Giardia or Chytrsporidium **after disinfection.**

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**PURIFICATION DEVICES:** Purifiers and distillers are not always able to remove harmful contaminants. Do not rely solely on a water purification device.

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**CONTAINERS:** The proper container is the key to safe home storage of drinking water. Polyethylene plastic containers, designed for food or water storage are best. These come in various sizes from two liter soda bottles to 55 gallon drums. Very small openings for spigots or siphon tubes and tight fitting lids or caps will help prevent contamination. Water should be stored away from direct exposure to sunlight.

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**WATER SOURCE:** Stored water must be clean water. Treated water from an "approved" public drinking water system with a chlorine residual can be used with no additional treatment or chemical disinfection. Water from an untreated source (such as a private well) should be chemically disinfected at the time of storage (refer to information on reverse side of sheet.) At the time of use, additional disinfection would add an additional margin of safety.

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**FILTRATION:** To remove the chemical flavor of treated water (after 30 minutes of contact time with a chemical disinfectant), pour the water through a filter containing activated charcoal. This will remove many chemicals and large contaminants and will enhance the flavor of the treated water. These filters are available commercially, or can be made inexpensively at home. (For more information, contact the Bear River Health Department, Office of Environmental Health.)

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**LABELING:** All containers of water should be labeled as "drinking water." Date of storage and disinfection used at the time of storage should be also be included.

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**HOW MUCH SHOULD ONE STORE?** At least a two-week supply is recommended. Two gallons per day, per person should be sufficient for drinking, teeth brushing, dishwashing, and general sanitation. This would be 28 gallons per person for two weeks. Families with pets must calculate for their needs. Contaminated water (dishwater, bathing) could be used for flushing toilets.

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**ROTATION:** Properly stored water should be need replacement unless it becomes contaminated in some way or the container begins to leak. Water stored for over 20 years has been found safe for drinking when it comes from a safe source and properly stored in food-quality containers.