



## Purifying Household Water

The treatments described below work only in situations where the water is unsafe because of the presence of bacteria or viruses. If you suspect the water is unsafe because of chemicals, oils, poisonous substances, sewage, or other contaminants, do not use the water for drinking.

### Storing water safely

- Store one gallon of water per person per day.
- Store at least a three-day supply of water per person.
- Collect the water from a safe supply.
- Thoroughly washed plastic containers such as soft drink bottles are best. You can also purchase food-grade plastic buckets or drums.
- Seal water containers tightly, label with date, and store in a cool, dark place.
- Replace water every six months.
- Never reuse a container that contained toxic materials such as pesticides, solvents, chemicals, oil or antifreeze.

### Boiling

- Boiling is the safest way to purify water.
- Bring the water to a rolling boil for 3-5 minutes.
- Let the water cool before drinking.

### Purifying by adding liquid chlorine bleach

- If boiling is not possible, treat water by adding liquid household bleach, such as Clorox™ or Purex™. Household bleach is typically between 5 percent and 6 percent chlorine. Avoid using bleaches that contain perfumes, dyes and other additives. Be sure to read the label.
- Place the water (filtered, if necessary) in a clean container. Add the amount of bleach according to the table below.
- Mix thoroughly and allow to stand for at least 30 minutes before using (60 minutes if the water is cloudy or very cold).

### Water purification

The two best ways to treat water are boiling and adding bleach. If tap water is unsafe because of surface water contamination (from floods, streams or lakes), boiling is the best method.

- Cloudy water should be filtered before boiling or adding bleach.
- Filter water using coffee filters, paper towels, cheese cloth or a cotton plug in a funnel.



PO Box 47890  
Olympia, WA 98504-7890

Web Site:  
[www.doh.wa.gov](http://www.doh.wa.gov)

360-236-4027  
(800) 525-0127

DOH Pub 821-031

Treating Water with a 5-6 Percent Liquid Chlorine Bleach Solution		
Volume of water to be treated	Treating clear/cloudy water Bleach solution to add	Treating very cold, or surface water Bleach solution to add
1 quart/1 liter	3 drops	5 drops
½ gallon/2 quarts/1 liter	5 drops	10 drops
1 gallon	1/8 tsp	¼ tsp
5 gallons	½ tsp	1 tsp
10 gallons	1 tsp	2 tsp

## How to Disinfect a Well

Use bleach to disinfect. Follow the instructions below for dug or drilled wells to determine how much bleach to use. If you know how much water is in your well, add bleach for that amount of water. If you don't know, add bleach amount for the depth of your well.

**Dug Wells:** Make a solution of bleach water using the amounts of bleach and water shown below. Pour bleach in 10 gallons of water. Mix thoroughly. Splash on casing inside well. Seal top. Open faucet. Let run until you can smell bleach at the faucet. Close faucets. Let set overnight. Next day, open faucets. Let water run slowly until bleach smell is gone. Add bleach as follows:

<b>Diameter of well</b>	<b>Add bleach</b>
is 4 ft.	3 cups per ft. of water
is 6 ft.	6 cups per ft. of water
is 8 ft.	12 cups per ft. of water

Example: If a well has a diameter of 6 feet, is 15 feet deep, and has 5 feet of water in it, add 30 cups of bleach. (6 cups x 5 feet of water).

**Drilled Wells:** Make a solution of bleachwater using the amounts of bleach and water shown below. Remove the well seal. Pour the bleach solution into the well. Connect hose and spray inside of well casing for 15 minutes. Turn on water taps in house. Let it run until you can smell bleach at faucets. Turn water off. Let stand overnight. Next day, open faucets. Let water run slowly until bleach smell is gone.

To make bleach solution: Find out how many gallons of water are in your well. For every 100 gallons of water in your well, add a mixture of: 3 cups bleach in 10 gallons of water.

<b>If well diameter is</b>	<b>It holds this much water</b>
6 inches	1.5 gallons water per foot
8 inches	2.5 gallons water per foot
10 inches	4 gallons water per foot
12 inches	6 gallons of water per foot

  

<b>If well has</b>	<b>Add/Mix</b>
150 gal. water	4.5 cups bleach in 15 gal. water
50 gal. water	1.5 cups bleach in 5 gal. water

After you disinfect your well, have a sample of your tap water tested at your local health department. Before you drink the water, make sure two samples are rated satisfactory to ensure it is safe and free of contamination.