

Questions and Answers about Water Storage!

Question: Why is drinking questionable water harmful anyway? Why do I need to treat my water?

Answer: Many different diseases are spread by drinking water contaminated by micro-organisms, including Campylobacter, cholera, amoebic dysentery, beaver fever (Giardia) [Note: giardia is spread by any four-legged animal] and Cryptosporidia. These organisms usually get into drinking water supplies when source waters (i.e., lakes, streams) or community water supply pipes or storage reservoirs are contaminated by animal wastes or human sewage. In general, surface waters such as streams and lakes are more likely to contain disease-causing organisms than groundwater. Deep wells are safer than shallow wells. In fact, shallow dug wells are often as contaminated as lakes or streams.

Question: Ok, I need to disinfect my drinking water, but how do I do it?

Answer: There are several methods you may use to disinfect water and make it safe to drink. The method you use will depend on the water you are trying to disinfect, and what you have available. The following is a list of viable options.

Boiling:

Boiling is the best way to kill bacteria, viruses and parasites. A full boil for at least two minutes is recommended. At elevations over 2,000 meters (6,500 feet) you should boil water for at least three minutes to disinfect it.

NOTE: This is not appropriate for water that is obviously heavily polluted, or subject to chemical contamination.

To remove the flat taste of boiled water, leave the boiled water in a clean covered container for a few hours or pour the cooled boiled water back and forth from one clean container to another.

Disinfecting using chemical methods:

Unscented household bleach (5% chlorine) can sometimes be a good disinfectant - e.g. when the water is not heavily polluted, or when beaver fever or cryptosporidiosis are not a concern.

SPECIAL NOTE: Do not use bleach in which there are active ingredients other than hypochlorite. Disinfecting using bleach works best with warm water.

If water is clear, add

2 drops to 1 quart 4 drops to 2 quarts

8 drops to 1 gallon 1/2 tsp to 5 gallons **If water is cloudy, add**

4 drops to 1 quart 8 drops to 2 quarts

16 drops to 1 gallon 1 tsp to 5 gallons
Allow water to stand for 30 minutes.

The disinfecting action of bleach depends as much on the waiting time after mixing as to the amount used. The longer the water is left to stand after adding bleach, the more effective the disinfecting process will be.

NOTE: Bleach does not work well in killing off beaver fever (Giardia) or Cryptosporidium parasites. The amount of bleach needed to kill these parasites makes the water almost impossible to drink. If beaver fever or Cryptosporidium are in your water, boiling is the best way to ensure safe drinking water.

Chlorine Tablets: Follow the manufacturers' directions. **IODINE:**

Whenever possible use warm water (20 °C) and let stand a minimum of 20 minutes after mixing and before drinking.

For cold water (5 - 15°C) increase the waiting time after mixing to 40 minutes.

If you are using 2% tincture of iodine, use 10 drops (0.5 mL) for every one liter of water.

With iodine tablets, follow the manufacturer's directions.

PLEASE NOTE: Pregnant women should not use iodine drops to purify water as it may have an effect on the fetus.

Iodine should not be used to disinfect water over long periods of time as prolonged use can cause thyroid problems.

Question: What if my water is clean, and I just want to put it up for long term storage?

Answer: For long-term storage, water should be sterilized or disinfected. If your water is already clean use the chlorine bleach method previously discussed for clear water.

If water Is clear, add

2 drops to 1 quart 4 drops to 2 quarts

8 drops to 1 gallon 1/2 tsp to 5 gallons

Question: What can I use to store my water?

Answer: Water should be stored in thoroughly cleaned heavy plastic containers. Some examples are 2 liter pop bottles, plastic juice bottles, 55 gallon or smaller plastic containers used to ship pop or juice concentrates. We also recommend the 5 gallon stackable mylar storage containers.

Note: Do not use any containers that are not food grade, or may have been used for chemicals. If in doubt of what was in it, don't use it!

Note: Do not use the plastic milk containers, as the plastic is too thin and will allow leakage after a short period of time.

Question: If I treat the water and store it, how long can I expect it to last?

Answer: As with any stored item there are many variables associated with this question. If stored indoors with reasonable temperatures, 2 years should be expected. Water can store longer, but don't count on it. To enhance the storage life keep the water away from light. A dark room with no light is great. If you have room available with no light, use it for water storage.