

# WATER STORAGE

**O**ur abundant domestic water supply is generally not a concern. However, situations might occur where the supply of safe water is interrupted. Interruptions could be for only short periods of time or natural disasters such as earthquakes could result in an inadequate or contaminated water supply for days. An emergency water supply is recommended in every household to meet these situations.

## **Amount of Water for Storage**

Only a short-term supply of water can be stored in most homes. Recommendations for the amount of water to be stored vary from *one-half gallon to one gallon per day/person* for food preparation and drinking purposes only. The Department of Defense, Office of Civil Defense, states that a quart of water or other fluid a day will sustain life. Most people would prefer one gallon per day especially if in warm weather. An additional one-half to one gallon per day is recommended for washing, brushing teeth and dishwashing. *Ideally, we should store a total of 14 gallons per person for a two week period of time.*

The amount of water for consumption might be reduced somewhat, depending on the juices, soups, other drinks, and high moisture foods which are available. Other sources of water available in emergencies are water heaters, water softener containers, and toilet tanks.

## **Containers for Water Storage**

### **GLASS:**



Glass provides a fairly effective container for storage but is easily broken and heavier than plastic. It is non-permeable to vapors and gases, however, water in glass containers should not be stored near gasoline, kerosene, pesticides, or similar substances.

### **PLASTIC:**



There are many different plastic containers manufactured. Plastic jugs are frequently used and are light weight and fairly sturdy. If they have contained milk or other edible substances, it is essential that they be thoroughly washed to remove all traces of fat. The jugs are not as stable as the soda pop liter bottles. Plastic containers previously used to store food items or those advertised as food storage products are safe to use. Chlorine bleach bottles are NOT recommended for storing drinking water because they contain an anti-static agent used to prevent dust accumulation. Plastics used to make waterbeds are NOT recommended. Some polyethylene type plastics are not recommended because harmful chemicals could leach into the water. It is permeable to vapors and gases, therefore should not be stored near gasoline, kerosene, pesticides, or similar substances.

### **METAL:**



Some metals, such as stainless steel, can successfully be used for water storage. The metal container should be resistant to rust. Some metal containers make the water have a metallic taste. The water should not be treated with chlorine before storage because it is corrosive to metal.

## **Treatment for Stored Water**

Use the best quality of water available. Water from a system with a State Division of Health “approved” rating is recommended. **If the water has already been chlorinated, it can be stored without treatment.** Otherwise, water stored for long periods should be sanitized or disinfected in one of the following ways:

- PROCESSING:** Fill clean canning jars with water, leaving one inch head space. Adjust new lids and bands; process in a boiling water bath. Quarts should be processed 20 minutes.
- CHLORINE:** *Unscented* liquid chlorine bleach can be used to disinfect water for long-term storage. **Add ¼ teaspoon (4 to 6% sodium hypochlorite) to each gallon of water.** Make sure container has secured lid. If stored water develops cloudiness or odor, replace and treat as above.

## **Emergency Disinfection of Water**

Sometimes the **ONLY** water available is contaminated with disease-causing organisms. Water should be sanitized or disinfected in one of the following ways:

- BOILING:** Boil water vigorously for ten minutes. To improve taste, pour water between two clean containers several times to incorporate air.
- CHLORINE:** If the water is **clear**, add ¼ teaspoon *unscented* liquid chlorine bleach per gallon of water. Mix well and let stand for 30 minutes before using. A slight chlorine odor should be detectable in the water. If it is not, repeat the treatment and let water stand for an additional 15 minutes before using. If the water is **cloudy**, chemical treatment is NOT recommended.
- TABLETS:** There are many kinds of Water Purification Tablets available. Be sure to follow manufacturer’s directions to allow time for the chemical to work before using. Check the tablet’s expiration date. Most tablets have a storage life of 2-5 years if unopened.
- COMMERCIAL:** Many Commercial Treatment Units make extravagant claims concerning their ability to purify water. The Utah State Division of Health states:

*“In an emergency situation, neither these nor any other presently known home-use devices can be relied upon to produce safe drinking water from any or all contaminated waters. A home-use device which may reduce one aspect of water contamination may have no effect on a different type of hazard in the same water.”*

## **Contamination by Radioactivity and Chemicals**

No effective way for decontamination of water which contains radioactive or chemical fallout is available for home use. Your local or state health officers should supervise decontamination of water.

Source: Georgia C. Lauritzen, USU Food and Nutrition Specialist

