

Home Water Storage for Emergency: An essential key to preparedness.

State of Utah...Environmental Quality Drinking Water Statements

Amount of Water to Store:

“The Department of Environmental Quality, Division of Drinking Water recommends storage of 1 gallon per person per day for 2 weeks. This is based on 2 quarts or ½ gallon per person per day for drinking and food preparation, another 2 quarts or ½ gallon per person per day for other limited uses such as washing hands, teeth brushing and dishwashing (total of 14 gallons per person for 2 weeks). Hot environments and intense physical activity can double that amount.”

Storage Containers:

“Water should be stored in containers manufactured for food use. Never use a container that previously held toxic substances. Stored water must be clean water... with a Division of Drinking Water ‘Approved’ rating. Most municipal water storage facilities are already disinfected so no additional treatment is necessary. Fill a clean food grade container with tap water and screw on lids. Water stored in thoroughly clean plastic or glass containers can be chemically disinfected for long-term storage by treating each gallon with 4-5 drops of unscented liquid chlorine bleach (Clorox or Purex containing 4% to 6% sodium hypochlorite). One teaspoon of bleach per 5 gallons of water. After treatment, allow 20-30 minutes before drinking. Both water storage and water purification products are available locally or online.

Use of Stored Water:

Once the container is opened, use the water rather than putting it back into storage. If stored water has a ‘flat’ taste, pour it back and forth between two containers several times. Rotate water ever 1 to 2 years. Store as much water as possible, more than the minimum (especially in desert and hot climates). Label containers with content, date and disinfection.

- 5 gallon heavy duty plastic container with spigot (42 pounds full)
- 6 gallon Mylar water storage bag, stackable in cardboard box (about 50 pounds)
- 2 liter plastic drink containers with screw on lids
- 55 gallon drum with a pump to draw water (about 460 pounds)
- Thermo-type containers
- 1 gallon glass jug (padded/cushioned)
- Water ‘canned’ in canning jars processed for 20 minutes (padded/boxed)

Plastic containers should be approved for food contact by Federal Food and Drug Administration (FDA). Polyethylene plastic is approved for food contact and commonly used in various sizes, including 55 gallon drums for water storage.

Note: Plastic bleach bottles and gallon milk containers are generally manufactured with non-durable plastic that promotes biodegradability and are undesirable for long term water storage.

Note Also: Vinyl plastic waterbeds or trash containers are not intended for storage and may contain chemicals. Such water could be used for laundry or non-food washing.

After an Emergency:

Know the location of your house's water shut off valve. In a disaster that interrupts your water supplier's lines, shut off the water supply into your house to prevent backflow of contaminated water. To use the water in your house piping system, turn off the hot water electrical or gas supply then close off the cold water supply to hot water heater. Catch water at the lowest point by opening hot water tank bottom valve and opening hot water faucet somewhere in the house.

Inside Water Sources:

- Melted ice cubes
- Soft water tanks
- Toilet tank (not bowl, and provided not chemical sanitizers are in use)
- Water heaters
- Water in your house pipe system

Note again: Vinyl plastic waterbeds or trash containers are not intended for drinking water storage and may contain chemicals. Such water could be used for laundry or non-food washing.

Emergency Outside Water Sources:

When emergencies warrant obtaining water from outside home sources, hazards of unknown quality need to be carefully considered. Contamination, chemicals, and microbiological hazards require sterilization or disinfection and filtration. If water is cloudy, chemical disinfection must be supplemented by filtration and heat sterilization (boiling 20-30 minutes). If water is cloudy and from an unsafe origin, 16 drops of chlorine per gallon is recommended.

Removing cloudiness can be improved through a 'capillary siphon'. Roll a small, clean, terry cloth towel into a long roll. Place one end into a container of cloudy water. Drape the rest of the roll over the edge of the container so that it hangs free from the sidewall of the dirty water container. Be sure the hanging end is several inches below the container water level. Soon capillary action draws water from cloudy water through the towel to a lower clean water receiving container. Siphoned water must be disinfected.

- Boiling: Safest method of disinfecting. Water must be heated to a vigorous boil for 5 minutes (preferably 10-20 minutes). Reoxygenate for better 'taste' pouring back and forth after.
- Chemical Disinfection: Less reliable. The more organic matter in the water, the more chemicals required. The colder the water, the longer the disinfecting time.
 1. Bleach: House hold liquid, 5.25% sodium hypochlorite. 4-5 drops per gallon. Cloudy increase to 16 drops per gallon. 1 teaspoon for 5 gallons water, thoroughly mix and stand for 30 minutes. Odor and taste
 2. Iodine Tablets: More effective against amoebic dysentery cysts. Sporting Goods Stores or Online orders. Follow directions. Color and slight odor.
 3. Halazone Tablets: Commonly at pharmacies and drug stores. Follow directions. Yellowish appearance and strong, objectionable odor