Mohave County
ARIZONA COOPERATIVE EXTENSION
THE UNIVERSITY OF ARIZONA • COLLEGE OF AGRICULTURE AND LIFE SCIENCES

101 E. Beale Street, Suite A • Kingman AZ 86401-5808 • (928) 753-3788 • FAX: (928) 753-1665
mohavece@cals.arizona.edu • cals.arizona.edu/mohave

Treating and Storing Water for Emergency Use

There are several methods for storing emergency quantities of potable water for uses such as drinking, cooking , or brushing teeth. Any of the following methods can be used to store water for emergency preparedness. To keep water fresh and fit for human use, it is a good practice to rotate water supplies every 2 to 4 months. Prolonged or regular use of stored water treated by the following methods is not recommended.

Filter the Water: The first step in bottling water is to clear the water by letting it settle for several hours, then filtering it through a clean cloth. Filtering removes organic matter such as soil or vegetative debris. Bacteria that have already bonded to these materials are hard to kill during disinfection, so filtering is important.

Select and Prepare Storage Containers: Plastic containers are best. Restaurants that use large quantities of cooking oil are inexpensive sources of large (5 gallon) plastic containers. Restaurants usually discard the cooking oil containers, so you may be able to get them simply by asking. Glass also makes an excellent container, but its potential for breakage makes it less desirable. Avoid metal containers for prolonged storage. This is particularly true when using certain disinfectants. Chemical disinfectants, for example, can react with certain metals to release contaminants into the water, thus making it unsafe for consumption.

Be certain the storage containers are clean. They do not have to be sterilized because the stored water will be disinfected. However, wash the containers thoroughly, then triple rinse with clean, fresh water. Be sure to completely rinse any cleansing agent from the containers.

Disinfect the Water

Boiling: Water to be stored can be boiled to disinfect it. Boiling for 2-5 minutes (at a rolling boil from the time it starts to boil) will kill all disease-causing organisms, including giardia and cryptosporidium. Do not over-boil water. Excessive boiling increases the chance of toxicity by concentrating metals, salts, and chemical impurities; such as aluminum, iron, and nitrates that do not evaporate out in the process.

Chlorination: The procedure for chlorine disinfection of water is sometimes written on the product label. If s, follow the manufacturer's recommendation. If not, add 2 drops of liquid bleach (5.25% concentration) per quart of water. Double the amount if water is turbid or colored. Mix or shake the treated water thoroughly, and let the water stand for 30 minutes. If at the end of the 30 minutes the water does not have a slight chlorine odor, repeat the dosage and allow the water to stand for 15 minutes more.

Following treatment, remove the lid and leave the water exposed to the air. This allows the chlorine to escape into the atmosphere. The water can be stirred or shaken at 30 minute intervals to speed this process. The process is complete when there is no more chlorine odor (or taste). In a well-sealed container, water should stay fresh for several months.

Iodine: For those of you that are allergic to chlorine or find it objectionable, iodine can be used to effectively disinfect water. When using tincture of iodine (or common household iodine), add 5 drops of 2% (U.S.P.) iodine to each quart of clear water. For turbid water, add 10 drops per quart. Let the treated water stand for at least 30 minutes. Iodine will not volatilize as readily as chlorine, so it is hard to remove the odor and taste. However, small quantities are not harmful.

Iodine tablets can be purchased for disinfecting water. Follow the disinfecting instructions on the package.