

Disaster Preparedness: Got Water?

Water is the single most abundant substance in the human body, making up to 60 percent of an adult's weight and up to 80 percent of an infant's weight. A person can live several days without food, but just a few days without water. It is second only to air in importance to life. So, be prepared for a disaster! ***Have enough water on hand to last at least 72 hours.***

How Much Water Do You Need?

- Store one gallon of water per person per day.
- Keep at least a three-day (72-hour) supply of water per person (two quarts for drinking, two quarts per person in your household for food preparation and/or sanitation).
- A normally active person needs to drink at least two quarts of water each day. Hot environments and intense physical activity can double that amount.
- Children, nursing mothers and persons with medical conditions will need more.

How to Store Water

- Plastic containers, such as soft drink bottles, are best. You can also purchase food-grade plastic buckets or drums.
- You can also store water in thoroughly washed plastic, glass, fiberglass or enamel-lined metal containers. Avoid using containers that will decompose or break, such as milk cartons or glass bottles. Never use a container that has held toxic substances.
- Seal water containers tightly, label them and store in a cool, dark place. Rotate water every six months.
- Purchased bottled water with intact seals can be stored for one year.

Hidden Water Sources in Your Home

- If a disaster catches you without a stored supply of clean water, you can use the water in your hot-water tank, pipes and freezer (ice cubes). As a last resort, you can use water in the reservoir tank of your toilet (not the bowl).
- Do you know the location of your home's incoming water valve? You'll need to shut it off to stop contaminated water from entering your home if you hear reports of broken water or sewage lines.
- To use the water in your pipes, let air into the plumbing by turning on the faucet at the highest level in your house. A small amount of water will trickle out. Then obtain water from the lowest faucet in the house.

- You can use the water in your hot-water tank. First, be sure the power source (electricity or gas) is off; then open the drain at the bottom of the tank. Start the water flowing by turning off the water intake valve and turning on a hot-water faucet. Do not turn on the gas or electricity when the tank is empty.

Ways to Treat Potentially Contaminated Water

In addition to having a bad odor and taste, contaminated water can contain microorganisms that cause diseases such as dysentery, typhoid and hepatitis. You should treat all water of uncertain purity before using it for drinking, food preparation or hygiene.

Two easy treatment methods are outlined below. These measures will kill most microbes, but will not remove other contaminants such as heavy metals, salts and most other chemicals. Before treating, let any suspended particles settle to the bottom, or strain them through layers of paper towel or clean cloth.

- **Boiling.** Boiling is the safest method of treating water. Bring water to a rolling boil for 3-5 minutes, keeping in mind that some water will evaporate. Let the water cool before drinking. Boiled water will taste better if you put oxygen back into it by pouring the water back and forth between two clean containers. This “aeration” process will also improve the taste of stored water.
- **Disinfection.** You can use household liquid bleach to kill microorganisms. Use only regular household liquid bleach that contains 5.25 percent sodium hypochlorite. Do not use scented bleaches, color-safe bleaches or bleaches with added cleaners. Use the following proportions:

Clear Water		Cloudy Water	
1 quart	2 drops	1 quart	4 drops
1 gallon	8 drops	1 gallon	16 drops
5 gallons	½ teaspoon	5 gallons	1 teaspoon

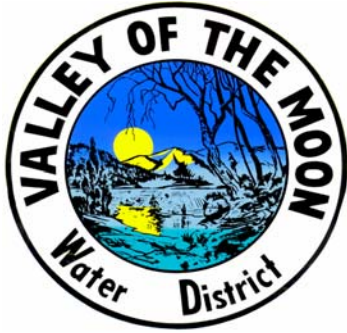
Mix water and hypochlorite thoroughly by stirring or shaking in a container. Let stand for 30 minutes before using. A slight chlorine odor should be detectable in the water. If not, repeat the dosage and let stand for an additional 15 minutes.

Sources for more information:

www.sonoma-county.org/des/em_eoc.htm County of Sonoma Office of Emergency Ser.

www.redcross.org/index.html American Red Cross

www.72hours.org/ City of San Francisco Office of Emergency Services



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Calculate your household's water needs:

$$\frac{\text{No. of members}}{\text{In the household}} \times \frac{3}{\text{No. of days}} = \frac{\text{No. of gallons}}{\text{No. of gallons}}$$

Plus:

- _____ Additional water for pets?
- _____ Additional water for persons performing intense physical activities?
- _____ Additional water for children, nursing mothers and persons with medical conditions?