PrePare

Water Storage, Sanitation, & MORE!!!

This week we are going to be working on our water storage which is one of the most important aspects of food storage. You can live for weeks without food, but only a few days without water. There are many different recommendations for the amount of water to store. A general guideline to follow is to store 1 gallon per person for 3-14 days. Three gallons should be the bare minimum, and obviously more is better!

Water is difficult to store in large quantities and yet it is necessary to have access to a lot of it in a true emergency situation. Typically disaster aid organizations are able to make it into affected areas within 3 days, thus the 3 day minimum typically recommended. However it is always good to have some backup plans in place for how you would deal with an extended water shortage situation. Start with the basics of water storage and move advanced topics as you feel more comfortable.

To Purchase

1. Purchase or collect water containers (See Water Storage Containers)
    a. Read Step 2: Water to determine how much to store and how to store it.
2. Purchase a bottle of bleach
    a. This is always helpful to have on hand for any necessary water purification and general cleaning.

To Do:

1. Fill your water containers and store them in a couple of different areas in your home.
    a. Don't forget to add some bleach if you don't have chlorinated water.

Water Storage Containers:

Water barrels and other food-grade water storage containers are an economical way to store large quantities of water and come in a variety of sizes. You may need to purchase a bung wrench to remove and replace the plugs on top and if your barrel is not equipped with a spigot, you may also need to purchase a siphon hose or a siphon pump. Plan to store these items next to your barrel. When filling your barrels with water, add one teaspoon of non-scented liquid chlorine bleach for every ten-gallons of water and plan to replace the water every year. Or look for water preserver products that preserve your water for up to five years. Place a label on your containers noting the date it was filled and the date it needs to be rotated.

Water can also be stored in two-liter plastic soda containers. Rinse well and sanitize with a bleach solution of one teaspoon bleach to one quart water. Rinse again. Fill with water and add two drops ofnon-scented liquid chlorine bleach. Store in a cool dark place and replace the water every six months.

Water Purification

1. If you are unsure of the safety of the water, treat it before drinking. Strain the water through a paper towel or coffee filter to remove any particles. Then treat it in one of following ways:
    a. BOIL VIGOROUSLY FOR 10-12 MINUTES
    b. ADD LIQUID CHLORINE BLEACH 1

i. Use bleach that lists sodium hypochlorite as the only active ingredient.
    1. Never use color safe or scented bleach.
ii. ALWAYS allow the treated water to stand for 30 minutes before drinking. Properly treated water should have a slight chlorine odor and taste. If not, repeat the dosage and let stand an additional 15 minutes. Chlorine dissipates somewhat as it sits. You can also agitate the water or pour it back and forth between two containers to help the chlorine dissipate. For further information on disinfecting water using Clorox Liquid Bleach, call1-800-292-2200.

c. USE PURIFICATION TABLETS 1
    i. Water purification tablets are available at most sporting good stores.
    ii. Follow directions on package. Usually one tablet will purify one quart of water.

Water Filtration Systems

Once your stored water is depleted you may need to collect water from outside sources. This water will need to be purified as stated above or filtered through a water filtration system. Small backpacking water filters are effective and easily fit into an emergency backpack. However, because of their size, they are limited in capacity and are best used for short-term water needs. Large gravity driven filters that do not require electricity are capable of filtering large quantities of water and are better suited for long-term water needs. Once you have your water storage in place consider adding a water filtration system to your supplies.

Portable Water

Store water that is easily portable and convenient to take with you in the event of an evacuation. Cases of bottled water or water in containers that are easy to lift and move are great options. Plan to take three to five gallons of water per person. Make sure your portable water storage is on your

*Tip: Five gallons of water weighs approximately 40lbs.

Additional Sources of Water in your Home

Not knowing how long it will be before water service is restored, you should be aware of other places to find water in your own home. If water service has been disrupted or you suspect the water has been contaminated, TURN OFF the main water valve. This will seal the water in your home and protect contaminated water from entering.

*Tip: Do not count this water as part of your water storage. It is still important that you have water storage sufficient for every member of your household.

Hot water tanks:

Hot water tanks contain many gallons of drinkable water. To access this water:
1) turn off the gas or electricity powering your hot water tank,
2) turn off the main water valve or the water intake valve at the tank,
3) open the drain at the bottom of the tank, and
4) turn on a hot water faucet to introduce air into the system and start the water flow.
DO NOT turn the gas or electricity back on until the tank is once again filled with water.

Plumbing System:

Pipes within the walls of your home contain water. To access this water:
1) turn off the main water valve,
2) turn on a faucet at the highest level in your home reserving the water that comes out (this allows air to enter into the pipes forcing the water to drain to the lower faucets),
3) turn on a faucet in the lowest part of your home to obtain the water from the pipes.

Unsafe Sources of Water

Water beds, swimming pools, spas, and toilet bowl water are not acceptable for drinking or food preparation. However, this water could be used to flush toilets. Swimming pool and spa water can also be used for cleaning and personal hygiene uses.

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Key Points to Remember about Water:

1. Most sources recommend 1 gallon of water per person, PER day, for 3-14 days. (Make sure to consider storing enough for pets as well)
2. Store water in "FOOD GRADE" or PETE plastic containers (stay away from milk jugs, but soda bottles are suitable).
    a. Another option for storing water is in mylar bags stored in cardboard boxes as found at Emergency Essentials. These are stackable and you don't need to rotate as often.
3. Store water away from too much light or heat.
4. Clean, sanitize, and rinse all containers prior to use.
5. Do not use containers previously used to store non-food products.
6. Store water in multiple sizes of containers to suit different emergency needs.
7. Do not store water containers directly on concrete. Place on cardboard, wood pallets, or other materials.
8. Non-chlorinated water (most municipal water is chlorinated) should be treated with unscented liquid household chlorine bleach (5 to 6% sodium hypochlorite). See the chart below for appropriate amount to add to water.
9. Boiling is the safest way to clean water, however you can also use household liquid bleach to kill microorganisms.
10. Rotate your water storage at least once every year unless you use mylar bags.

Diagrams/Charts:

Amount of Water	Amount of bleach to add to clear water	Amount of bleach to add to cloudy water
1 quart	2 drops	4 drops
1 qallon	8 drops	16 drops
5 gallons	teaspoon	1 teaspoon