AUGUST, 2014

Water, Water Everywhere?

How Much Water Should I Store?

- **One (1) gallon per person per day**
  - ✓ *Drinking*
  - ✓ *Food preparation*
  - ✓ *Minimal washing (sponging off)*
- **Double this amount during:**
  - ✓ *Hot weather*
  - ✓ *High stress or activity levels*
  - ✓ *Pregnancy*
- **Safety margin:**
  - ✓ *Four (4) gallons per person per day (AZ can be extreme)*

Fast Facts

Disaster Types

1. **Natural** *(Lightning fire, earthquake, flood, etc.)*
2. **People-Caused** *(terrorism, civil disturbances, etc.)*
3. **Personal** *(disability, illness, job loss, etc.)*

Preparedness Levels

Emergency: *Short-term, 3 days to 2 weeks*

Disaster: *2 weeks to 6 months*

Simply Ready Lifestyle: *6+ months*

Today, what if…

… A disaster collapsed the pipes bringing water to your town?
…The water supply in your area became undrinkable?
(i.e., May, 2010 – Boston was under a 3-day "boil water" order)

How long would you and your family be able to survive?

Your physical survival depends upon:

STORE: How much drinkable water you have stored.
PURIFY: How much water you can purify to use as drinkable water.
SOURCE: How much water you can get (and purify) from other sources.

How to STORE drinkable water:

DO: Buy good bottled water in heavy jugs or fill from tap food-safe plastic containers w/screw lids.
- *Sanitize re-used containers first with 1 tsp. bleach in 1 qt. water. Shake jug, drain, and let dry 30 min.*

Store out of direct sunlight and rotate yearly

DO NOT:
Use plastic milk containers (too thin, get brittle)
Use a container that has ever contained a chemical
Use glass (too heavy, breakable)

How to PURIFY unsafe water

1. **Chemicals: Kills disease-causing organisms but not chemical pollutants, leaves sediment.** Here are two options:
   - Water purification tablets (Aquamira–same as in municipal systems)
   - Use unscented bleach with no additives!

Water - Bleach Ratio	
Volume of Water	**Bleach**
1 Quart	2 drops
1 Gallon	1/8 teaspoon (8 drops)
5 Gallons	1/2 teaspoon
10 Gallons	1 teaspoon
50 Gallons	5 teaspoon

How to PURIFY unsafe water (continued):

2. **Gravity Filtration: Removes contaminants and sediment**
   No chemicals used. Filtration takes more time and equipment than chemicals. Some filters remove viruses and bacteria, others don't. Filters and containers must be cleaned and/or replaced regularly.

   Commercial Filters for Gravity Systems – Look for "NSF Certified"
   Filter recommended below will remove viruses, "bad" bacteria, foul tastes and odors, parasites, trihalomethanes, inorganic minerals, harmful organic compounds, heavy metals, sediments, and cloudiness.

   - Black Berkey Water Filter – available as filter alone to use in homemade systems or in Berkey gravity water systems. Cleanable and useful for up to 3,000 gallons.

   - Website with instructions on how to make your own gravity system with a Black Berkey Filter: http://www.alpharubicon.com/kids/homemadeberkeydaire.htm

3. **Boiling: Boiling kills disease causing organisms, but will not remove many chemical pollutants**. Boil at least 5 min.

4. **Ultraviolet Light: Kills bacteria and viruses but does not filter out sediment or chemicals**. Best to use with pre-treat filter. See www.steripen.com for an example.

Water SOURCES in an emergency

Emergency gas & water shut-off tool.

1. **Water pipes in the house:**
   - Turn off street supply (main valve)
   - Open tap at the highest location in house
   - Collect water at lowest tap in house
2. **Water heater** (Here's how: http://bit.ly/1jORon7 **)**
3. **Swimming pools** (needs to be treated and purified)
4. **Rain water** (needs to be treated and purified)
   - Rain gutters from roof ➢ plastic tarp placed over a hole or bucket
5. **Well Water** (ground water) (needs to be treated and purified)
   - Hand pump required (electricity may not be available)
6. **Build a Solar Still** (Here's how: http://bit.ly/1ldjB6V)

By the way…

Water purity depends on three things:

1. **Physical elements** like sediment and other solids that affect water taste and odor.
2. **Chemical elements** like heavy metals that pose chronic health risks if built up long-term.
3. **Microbiological elements** like harmful bacteria (e.coli), viruses and parasites that pose an immediate health risk.

Did You Know?

- *An infant's body is about 80% water; an adult body is 60-75% water.*

- *Your brain is the most water-laden part of your body. How well messages pass from the brain to the rest of the body depends on how much water and oxygen is available.*
- *People feel thirsty when they have lost just 2-3% of their body's water.*
- *Mental performance and physical coordination start to become impaired before thirst kicks in, typically around 1% dehydration!*