



PURIFY WATER *Saratoga Jacks*

Just so you understand how important water is, the average person needs to drink about 4 quarts/liters of water a day to replace body fluids lost through perspiration, sweat, urinating, and heavy breathing too. And as time goes on and you fail to replace these fluids adequately...that's when your troubles begin. Dehydration, exhaustion, fatigue, hypothermia, "brain lock," etc, which eventually and almost always leads to death.

And so two important things you need to remember when it comes to not having any water to drink... DON'T eat, because in order to digest food you need water, lots of it. And DON'T drink any suspected contaminated, discolored, and or smelly water either because it could give you diarrhea and or produce vomiting thus speeding up your dehydration which can lead to death. When it comes to filtering and purifying water for consumption, you can't screw around and take shortcuts. You either do it right or you're going to get terribly ill, or worse yet, die from improperly treated water if you can't get to a medical facility in time.

So what's the difference between filtering and purifying water?

Filtering is the removal all "visual" particles and matter from the water such as dirt, leaves, critters, etc, so it can be properly purified and then safely consumed.

Purifying is the removal of all "invisible" bacteria, germs and other harmful elements from the water so it can be safely consumed.

PASTURIZING WATER:

Very Effective, but requires fuel to burn, or power to heat up, unless solar energy/solar oven is used. This takes tremendous fuel stores if your gas and electricity is off. Boiling water will kill most types of disease-causing organisms and is the most reliable method of purifying water easily. Bring the water to a rolling boil for two minutes. Add one minute for each 1000 feet of elevation. Let it cool. If it tastes flat, pour it back and forth between containers several times to add air to the mix which will improve the taste. You may also add a pinch of salt for each quart/liter. Boiling will not remove toxins.

CHEMICAL TREATMENTS:

Effective, but some may have sensitivity to chemicals.

CAUTION: KEEP AWAY FROM CHILDREN

Iodine

Iodine tablets should not be used with those on thyroid medication, lithium medication, pregnant women, those with allergies to iodine or shellfish, or people with active thyroid disease. It appears safe for short term use for others. Add the recommended amount, mix it well in the water and let it stand for at least 30 minutes. You can add a small amount of vitamin C (50 mg.) to the water to improve the taste or other powdered drink flavorings. There are also commercially available iodine tablets in sporting goods or outdoor supply stores. Use them according to directions. Once these bottles are opened, they should be used within the specified time frame. Shelf life for iodine is 3 years.

Chlorine

Laundry Bleach is not good for people's health. Clorox has other additives in it and has only a shelf life of 12 months. This is 70 year old technology. There are better methods. The best kind to use is Spa Chlorine (powder form). This should be about 99% Sodium dichloro-s-triazinetriene dehydrate. A 2 lb container has cost me around \$16, and will last indefinitely if stored properly. This can be found at some spa - pool stores, and Home Depot carries a smaller size container for under \$10. Store the original container in a freezer bag in a dark dry location. Spa chlorine must be kept dry. It is very powerful stuff, don't breathe the fumes.

To use spa chlorine;

Use 1/4 tsp to treat a 55 gallon drum of water. Close the water container and wait for 24 hours. If you can still detect a chlorine odor after 24 hours, then the water is safely treated. But, you must now leave the lid off and let the water sit for another 24 hours for the chlorine gas to dissipate before use. You can get a package or two of chlorine test strips from many stores, that will tell you exactly if 'free chlorine*' is present. If after the first 24 hours there is no chlorine odor present in the water, then repeat the process, for another 24 hours, until slight chlorine smell can be detected in the water.

Chlorine destroys organic material---bacteria, viruses, cysts, parasites, & spores.

** Free chlorine is a term used to describe excess chlorine (i.e., a chlorine molecule that has not combined with a bacteria molecule and dissolved) in water. If there is "free chlorine" in the water after 24 hours, that means that the chlorine killed off all the bacteria. The excess free chlorine is what is left.*

ALTERNATIVE METHODS

GRAVITY FED WATER PURIFIER SYSTEMS:

"Colodial Silver Impregnated Ceramic" Requires No Fuel or Energy.

Have the advantage of both filtering and purifying.

Last a long time (if properly maintained)

Evaporation & Condensation WATER COLE

takes all day in the sun, and yields small amounts, but is effective, even with salt water.

Steam Distillers and/or Reverse Osmosis Most Bottled Water companies use this method
Need Energy or Fuel