

**WATER: THE MOST CRITICAL COMMODITY**  
 BY LARRY G. BETHERS

Water is critical to survival. But where do you find safe drinking water in an emergency?



*Pure water: The most important preparedness resource*

Water is the most critical commodity in a survival situation. A normal, healthy adult can survive four to six weeks without food, so long as there is adequate water. Without sufficient water your chances of survival drop dramatically. See the chart below for details.

The experts in wilderness survival indicate that a person should have a full gallon of water per day, especially if the weather is hot or cold. What then of the promoters of commercial 72-hour kits who proclaim that you can survive on two 4.1-ounce packets of water per day? **They are lying to you**, and this leads me to wonder if the other concepts, techniques and equipment in their kits are suspect, too!

**How Long Can a Person Survive in the Shade Without Food?**

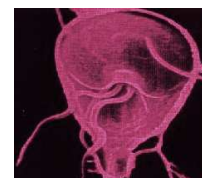
Maximum Daily Temperature (Degrees F in the shade)	Expected Days of Survival					
	No Water	1 Quart	2 Quarts	4 Quarts	10 Quarts	20 Quarts
120	2.0	2.0	2.0	2.5	3.0	4.5
110	3.0	3.0	3.5	4.0	5.0	7.0
100	5.0	5.5	6.0	7.0	9.5	13.5
90	7.0	8.0	9.0	10.5	15.0	23.0
80	9.0	10.0	11.0	13.0	19.0	29.0
70	10.0	11.0	12.0	14.0	20.5	32.0
60	10.0	11.0	12.0	14.0	21.0	32.0
50	10.0	11.0	12.0	14.5	21.0	32.0

Water for a family of four for 72 hours will weigh 96 pounds. That is sufficient weight that most of us would not care to pack it around in the event of an evacuation. **Now what?**

The concept I propose is to carry at least 3-4 quarts of water per person (weight 6-8 pounds) and then locate a source of water--a stream, lake, irrigation ditch, etc., etc. But realize that **the majority of natural water sources in the United States are contaminated with Giardia** (see picture below)--a nasty little cold water parasite that loves the human's lower colon and is famous for causing "rotten egg" gas and the Rocky Mountain Two Step!!

This means that **ALL natural water should be processed before consumption**. There are several ways to do this. Here are some of the easiest and most common methods:

**1. BOILING.** This is the only process that is 100% effective in killing any crawlies, but it does not remove any floaties. Water should be boiled for at least 10 minutes at a rolling boil. It tastes terrible because much of the dissolved air has been lost. You can improve the taste by pouring the boiled water back and forth between two clean containers several times.



*Giardia Lamblia*

**2. FILTERING.** The easiest and most effective method of removing almost all crawlies and all but the smallest floaties. Does not affect the taste of the water. You should look for one that filters down to 0.2 microns or less. A combination of filtering and boiling or treatment, when possible, is the best way to ensure water safety.

**3. IODINE.** 75-90% effective in killing crawlies, but does not remove floaties. The effectiveness of this method depends on water temperature and contact time. Iodine does affect the taste of the water. **Avoid like the plague iodine tablets sold as "military surplus."** The reason they are surplus is because they have exceeded the shelf life of 5 years and the military, by regulation, cannot issue them. A few years ago I found a bottle of iodine tabs in a person's 72-hour kit that had an expiration date of 1973! She had recently purchased them from a local surplus store. When she confronted the manager she was told to use two pills instead of one. Hey folks, double nothing is still nothing!

**4. BLEACH.** Almost as effective as iodine in killing crawlies, but does nothing about floaties. Use 4 drops of regular chlorine bleach (not color safe or scented) per quart of water. Note that liquid bleach also loses potency over time, so bleach that has been stored for more than two years is not going to be very effective for water purification.

Water is critical. As a last resort, if you have no way to treat the water, go ahead and drink it. If you don't you will probably die anyway, and most things nowadays can be cured. Better yet, **be prepared to provide your own water supply** in an emergency. Personally, I carry a water filter and iodine tabs.

I have included above a chart adapted from C.C. Troebst's book "The Art of Survival." Study it closely. You will discover that it is the water in your stomach that keeps you alive, not the water in your canteen.

This information is relative, of course. All of us go about our daily business in some degree of dehydration. Note, though, that at the end of the projected days of survival it does not mean you are just thirsty and feel bad. **You die.** Your friends stand around a deep hole, put you in the bottom and then throw dirt in your face. **THE IMPORTANCE OF WATER CANNOT BE OVERSTATED!**