

Last month we went over how much water we need to store and different kinds of containers. This month we want to look at some water purification methods. If there was some kind of a disaster to happen, we really don't know how long it would take to restore water lines, this is why we need some kind of water purifier in our 96 hour kit.

When we think of purifying water we need to remember two things,

- 1- Cleaning water with a filter to remove dirt, debris, and sediment.
- 2- Removing and or killing all bacteria and viruses.

Remember that even the best water purifiers may not remove all chemicals, so it is best to start with the safest and cleanest water possible. If you are working with water that has a lot of sediment in it you can use coffee filters to filter water that has a lot of sediment in it, then run it through a good water purifier system.

The water we filter should be filtered through a 0.2 microns or less. Anything over 0.2 will not remove contaminants.

Here are a couple of pictures of some gravity filters. Some of these can filter thousands of gallons of water over the life of the filter and several liters of water an hour. These kinds of systems can cost anywhere from 60 dollars and up, it just depends on the size and the amount of water you want to purify.



Another filter idea is a single person use filter. There are several available in sporting goods and other stores – as well as on-line.

The best and safest way to purify water is to boil it. Some people say you need to boil water up to 30 minutes to make it safe. And some say anywhere from 1 to 5 minutes. Here is something I found from the Wilderness Medical Society,

According to the Wilderness Medical Society, water temperatures above 160° F (70° C) kill all pathogens within 30 minutes and above 185° F (85° C) within a few minutes. So in the time it takes for the water to reach the boiling



point (212° F or 100° C) from 160° F (70° C), all pathogens will be killed, even at high altitude. To be extra safe, let the water boil rapidly for one minute, especially at higher altitudes since water boils at a lower temperature

There are different additives you can use with water such as iodine, chlorine dioxide or plain chlorine. Since we talked about using chlorine for our water storage we will just stick with this because we should have some on hand. Use 1/8 of a teaspoon of chlorine per 1 gallon of water, stir and let sit for about 30 minutes. It will have a funny taste, but the longer you let it sit the less noticeable it will be.

Remember these are just ideas and suggestion, so do some of your own research and find out what will work best for you and your family, and don't forget to put another 15-20 dollars in your kit.