

Fire and Water in an Urban Survival Situation

Posted by David Morris on July 29, 2010

Welcome to this week's Urban Survival Newsletter, brought to you by the [SurviveInPlace.com Urban Survival Course](#).

This week, we're going to talk about two essentials of survival...fire and water.

Smores as a survival training tool

Some of you might be VERY excited at the thought that Smores are a vital for long term survival item. I'm sorry to disappoint you, but they STILL aren't part of a balanced diet. 🙄

Even so, my wife and I and our oldest son enjoy having smores together in the back yard. Sometimes it's just us, but a lot of the time it ends up being a social event with other families.

I decided last summer that making smores was a perfectly good opportunity to practice my fire making skills. I do cheat a little...I use flint and steel instead of a bow drill or a hand drill, but it does cover most of the essentials of primitive fire making.

We don't get as many bag nights camping as we'd like anymore, and this is a simple way to practice a vital survival skill in our own back yard several times a month. And, like any skill, the more often you use it, the easier it gets.

Why practice? Because fire isn't always easy to make. Wood gets wet, the wind blows, you don't make enough tinder/kindling, or your tinder just won't take a spark like it should. The more you practice making fire under various conditions, the easier it becomes. It's still possible to strike out, but it becomes less and less likely as you get more experience.

So, this week, have some smores...but make them a reward for having used one of the fire starters in your 72 hour kits or GO Bags.

I alluded to this, but one lesson you'll quickly learn is just how much tinder and kindling it can take to get a healthy fire going. Fire is amazingly fragile in the early stages and the more small stuff you've got, the better.

Quick and simple water purification.

One of the things you're going to want to use fire in a survival situation for is purifying water. In the woods, you can heat water up to boiling, let it sit a little bit, and it's safe to drink.

In urban areas, you've still got to take care of the same creepy crawlies that you've got in the wilderness, but you've also got herbicides, pesticides, fuel runoff, road debris, possibly roof debris, and other urban pollutants. So, in addition to killing off the creepy crawlies, you need to take another step to get rid of the junk.

One of the simplest, easiest, cheapest ways to do this is with a bucket filter. I detailed how to make one in my Advanced Urban Water Purification book and it was used on the first episode of The Colony:Season 2 this week. (You can see my review of the first episode at: secretsofurbansurvival.com/317/survival-lessons-from-the-colony-on-discovery-episode-1/)

This method of filtration has been around since 2000 BC and is still in use around the globe. It's simple, cheap, reliable and durable. To make it, you need a container like a 3 liter bottle or a 5 gallon bucket, crushed charcoal, sand (chemical free), pea gravel, large gravel, and a few other items like lengths of pipe, fittings, and valves, depending on how complex you get.

Here is an example setup from aqsolutions.org:



It is only an example...you can easily make the setup more or less complex.

This setup uses 1.83 kg of activated charcoal, which will (very) conservatively purify 1830 liters of relatively clean water, like rain water or water that has gone through a solar still. 1830 liters will last a five person household 6 months at a rate of 2 liters per person per day. Estimates are that activated charcoal will purify up to 10 times this amount, but since it is so cheap, it is smart to replace the activated charcoal every 1800-2000 liters.

Your imagination is the limit on altering the design. Instead of using a bucket, you can use a length of PVC pipe, a 2 liter bottle, or any other container that will hold the aggregate and allow you to get water in one end and out the other.

Where do I get the charcoal?

Great question. Here's one place NOT to get it. DO NOT USE INSTANT BRIQUETTES or briquettes with accelerants, chemical binders, coal, or fillers.

Three places to get your charcoal from easiest to hardest:

1. You can buy bulk activated granular charcoal online or in pet/aquarium stores. The activated granular charcoal will be approximately 5 times more effective than low grade charcoal, but they will both work. Any charcoal that doesn't say "activated" is low grade charcoal.
2. You can buy chemical free charcoal at Wild Oats and other stores. They sell an "all natural" charcoal that is free from all of the additives mentioned.
3. You can also make your own charcoal. One benefits of making your own is that you essentially create a gasifier when you make your charcoal setup. If you're not familiar with gasifiers, they generate wood gas, which can be used to power an internal combustion engine, like a generator.

If you buy or make your own low grade charcoal, you simply need to pulverize it so that it is roughly the size of a grain of rice. A little bigger is fine, but you don't want the dust. An easy way to do this is to put it in a burlap sack and hit the lumps with a sledge hammer. When you're done, spray down the entire bag or dip it in water repeatedly to rinse off the charcoal powder.

Keep in mind that it takes approximately 5 grams of charcoal (and approximately 1 gram of activated charcoal) to purify one liter of water. When you've run that much water through your filter, you need to replace it.