

# Water

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- lose 2-3 quarts per day in average moderate conditions
- lose consciousness in 3 days, perish after 5
- 1 gallon per day minimum; more for strenuous activity or heat
- 1 gallon of water weighs 8 pounds

It is possible to drink too much water. As with not drinking enough, this also results in death.

## Freshwater

- streams, creeks, ponds, lakes, springs

## Saltwater

Saltwater is not good to drink, unless it has been distilled first.

## Precipitation

- rain, snow, sleet, hail, ice, dew

## Tapped tree

- maple and birch

## Transpiration bag

- this can be placed around a limb from a non-poisonous plant. When exposed to sunlight, moisture should be drawn out of the leaves into the bag.

## Purification

### Boiling

- safest
- 5 minutes rolling boil, 10 minutes is better
- doesn't get rid of chemicals
- higher elevations need more time

### Distillation

- doesn't remove volatile oils & some organic compounds
- water heated and steam captured
- solar still

### Survival Straw

- may not filter out bad tastes, heavy metals, viruses, salt or chemicals
- calm, clear water is best

### UV light

- Steripen

### SODIS

- sitting clear container in direct, bright sunlight for a day can be effective
- may not be complete or guaranteed
- needs 2 days for overcast
- plastic not glass bottle
- 2 liter size or smaller

- does nothing for chemical contamination

### Disinfecting tablets

99% effective

### Potable Aqua iodine tablets

- 1 year shelf life
- faster – 35 minutes
- not good for pregnant women, people with thyroid issues or shellfish allergies

### Katadyn Micropur tablets

- 2+ year shelf life
- 4 hours
- taste better

### Household chemicals

#### Bleach

- cold or murky water needs 4 drops per quart
- shake
- open lid and let some get on threads and cap
- set bottle in shade – 30 minutes for clear, room temperature water
- should smell like chlorine, if not add a drop or two and wait 30 more minutes

#### Iodine

### Tincture of iodine 2%

- 5 drops for clear or warm water
- up to 10 for cold or cloudy water
- sit for 30 minutes

### 10% povidone-iodine solution

- 8 to 16 drops

### Build your own filter

- charcoal filters not 100% effective
- use flexible hose, glue, and pine sapwood
- pvc, epoxy had flow rates of several quarts/day with 99.9% of e. coli removed, but viruses may pass through

### Drink it raw

- risky
- if you cannot treat water, drink as last resort

## Water Carriers



### GI Molle Canteen Cover

I like this one the best. The cover will hold a 1 quart canteen, cup, and stove inside. One outside pocket will hold a bottle of purification tablets, and the other pocket will hold 3-4 trioxane tablets. A disadvantage of this style, is that as the water level goes down, you can hear it sloshing around inside.



### Sports bottle

These can be durable. To drink from this one, you have to pull the spout open at the top. This is probably not a good job for your teeth to do, but they will probably be cleaner than your hands, if you are outside.



### Generic Water bottle

These are not sturdy, and can be very hard to open due to the tiny cap. They are very cheap, however. They make good bottles to keep on hand at home or in a cooler.



This is another example of a sports-type bottle. To drink from this one, you unscrew the cap.



This is a GI cold weather canteen. It is made with double-wall construction to help prevent freezing in the wintertime. It also has a silicon mouthpiece.



Military 2 quart canteen. It is made from flexible material, so that as you drink from it, you can squeeze the air out to reduce noise. It comes in a carrying pouch that can accept a shoulder strap.



This is a generic canteen probably from Walmart. You'll want to check the seams regularly on these. The material on the outside can be wetted to help keep it cooler. It seems to have a 2 quart capacity.





Military 5 quart canteen, partially folded up. These would be useful at a stationary location, or if you had a pack to attach it to.



48 ounce Nalgene bottle

The lid on this one has been changed to one that will accept a water filter inside the bottle. With the standard lid, you must take care when drinking that you don't spill it everywhere.

Some places also sell 6 gallon water containers. These are great for stationary locations or if you have a wagon to pull or a vehicle to carry it in.

Because it is difficult to get all the residue out, containers that have contained milk should not be used for drinking water.

The cat litter containers that resemble milk jugs will hold water flushing a commode.

<https://www.outdoorlife.com/photos/gallery/2015/01/survival-skills-10-ways-purify-water#page-11>