



Health Canada

Drinking Water Away From Home

The quality of drinking water at home is not usually a concern, but drinking untreated water in the great outdoors can make you ill. So if you camp, bike, canoe, or are even just away at the cottage, make sure the water you drink is safe. Take these simple precautions.

- Avoid drinking water from visibly polluted streams, lakes, rivers and ponds. Pollution can come from industry, agricultural practices and other sources.
- Disinfect all untreated drinking water ~ regardless of how clean it looks ~ by boiling it for one minute or by passing it through a filter with an absolute pore size of 0.5 microns, followed by chemical disinfection. Immunocompromised people should be particularly careful.
- Use only safe drinking water for brushing teeth.
- Periodically clean tanks and containers used to store drinking water. Remember to rinse them thoroughly! Water treated with chlorine or iodine remains drinkable for several days without refrigeration. Use water treated by other means within two days.
- If drinking water at the cottage is not municipally treated, have it tested periodically by a provincial or private laboratory. Even if it passes these laboratory tests, it is always wise to disinfect surface water.

Water taken from lakes, rivers, mountain streams and ponds may contain invisible but harmful micro-organisms called pathogens. These bacteria, viruses and protozoa can cause symptoms ranging from mild nausea and fever to severe diarrhea and hepatitis. Currently the most common pathogens are the protozoa [Giardia](#), which cause diarrhea commonly called "Beaver Fever", and [Cryptosporidium](#), which also causes diarrhea. These protozoa can be found in the feces of many domestic and wild animals and can spread to surface waters. Boiling drinking water will remove all known pathogens.

Emergency or Short-Term Water Disinfection

Method	Directions	Advantages	Comments
Boiling	Bring to a rolling boil for 1 minute allow to cool.	Kills all known pathogens.	Water that has been boiled for coffee or cooking is also safe.
Disinfection Tablets	Use as Directed.	Usually effective against most pathogens	If Cryptosporidium is suspected, water should be filtered first. If water is very cold, allow extra time before drinking.

		if directions are carefully followed.	
Chlorine Bleach	Add 2 drops (0.1mL) per litre of water (or 4 drops if water is cloudy). Mix, let stand at least 30 min.	Usually effective against most pathogens.	If Cryptosporidium is suspected, water should be filtered first. If water is very cold, allow extra time before drinking.
Tincture of Iodine (2%)	Add 5 drops (0.25mL) per litre of water (or 10 drops if water is cloudy). Mix, let stand at least 30 min.	Usually effective against most pathogens.	If Cryptosporidium is suspected, water should be filtered first. If water is very cold, allow extra time before drinking. Do not let water sit for more than a few days at a time.

Outline Water Disinfection for Cottages, Recreational Vehicles, etc.

Method	Directions	Advantages	Comments
Boiling	Bring to a rolling boil for 1 minute allow to cool.	Kills all known pathogens.	Water that has been boiled for coffee or cooking is also safe.
Disinfection Tablets	Use as Directed.	Usually effective against most pathogens if directions are carefully followed.	If Cryptosporidium is suspected, water should be filtered first. If water is very cold, allow extra time before drinking.
Iodination	Iodine is pumped into the water. Adequate contact time is ensured by a storage reservoir.	Effective against most pathogens.	May require filtration to eliminate protozoa. Can treat large volumes of water.
UV Irradiation	Water passes by a UV-lamp that inactivates pathogens.	Effective against all except most resistant organisms. No change to water taste.	Requires filtration to reduce cloudiness and improve inactivation.
Ceramic Filtration	Water passes through a porous ceramic cartridge that removes	Likely to be effective for protozoa and bacteria.	May require filtration effective against viruses.

	particles.		
Ozonation	Ozone is formed and bubbled through water.	Effective against most pathogens if dosage is sufficient.	May require filtration.