

Giardia

Cool, clear mountain streams may appear clean and safe, but they often harbor a hidden danger. Giardia (gee-ar-dee-ah) lamblia, is a microscopic, single celled animal protected by an outer shell called a cyst. If ingested it can cause a disease known as giardiasis. Giardiasis is not fatal but it can cause great discomfort. All water should be considered potentially contaminated because even contaminated water may look, smell, and taste clean.

Most water becomes contaminated by infected animals that live nearby. Beavers and muskrats are easily infected with Giardia and, once infected, if they release fecal material in or near water, it becomes contaminated. Many hundred million cysts may be shed at one time by one animal, and it takes as few as ten cysts to cause an infection.

Signs and Symptoms

Chronic symptoms will appear from seven to ten days after ingesting the cysts. They include: Abdominal cramps, diarrhea, increased gas, bloating, fatigue, and sometimes weight loss due to nausea and loss of appetite. These symptoms last for several days only and the body can naturally rid itself of the parasite in one to two months. However, for people with weakened immune systems the body often cannot rid itself of the parasite without medical treatment. There are several treatments that a physician can prescribe that can kill Giardia within one or two weeks.

Making Drinking Water Safe

(100% SAFE) The safest way to assure that water is Giardia-free is to bring it from home or another known safe water supply.

(100% SAFE) Boiling water for 1 minute is the best method for destroying Giardia cysts, and other pathogens.

(90% - 100% SAFE) Filtering the water through a 1 micron absolute filter will make the water safe to drink. There are several filters on the market that claim to remove Giardia cysts: First Need Water Purification Device made by General Ecology, Inc., Katadyn Pocket Filter made by Katadyn Products, Inc, H2OK Portable Drinking Water Treatment Unit Model #6, made by Better Living Laboratories Inc., and the Pocket Purifier made by Caco Ltd.

(90% SAFE) Chemical Purification with chlorine: liquid 4% - 6% chlorine bleach (used for washing clothes), 2 drops per qt./ltr. of clear water or 4 drops per qt./ltr. of cold or cloudy water.)

(90% SAFE) Chemical Purification with iodine: Use tincture of iodine 2% (from first aid kit or medicine chest), 5 drops per qt./ltr. of clear water or 10 drops per qt./ltr. of cold or cloudy water.) **SHAKE THOROUGHLY & LET STAND FOR 30 MINUTES!** Very cold

or murky water may have to stand up to several hours or overnight.

To prevent further water contamination, care should be taken to see that no fecal material enters surface water. Common toilets should be established for all camps with more than three people. Toilets should be at least 100 feet away from all water, trails, and campsites, and hand-washing facilities should be available nearby.