

## GIARDIA LAMBLIA

You are out hiking and you are hot and dry. That beautiful, clear, cascading mountain stream promises sweet, refreshing relief. You approach the stream bank with mouth-watering anticipation and kneel down for that first glorious gulp, unaware that a tiny pest may be lurking in that pristine water, just waiting for a chance to make a new home inside the intestinal tract of a warm-blooded creature like you.

Giardiasis is an illness caused by *Giardia lamblia*, a one-celled, microscopic parasite that lives in the intestines of people and animals. During the past 15 years, *Giardia lamblia* has become recognized as one of the most common causes of waterborne disease in humans in the United States. This parasite is found in every region of the United States and throughout the world.

The organism may find its way into your system in several ways. You may swallow water contaminated with *Giardia*. A person can swallow a *Giardia* cyst, the infectious stage of the parasite, by consuming water from swimming pools, lakes, rivers, springs, ponds, or streams contaminated with feces from humans or animals. You may put anything into your mouth that has touched the stool of a person or animal with giardiasis, this could include eating foods that have been contaminated.

Once a cyst is ingested by an unsuspecting mammalian host, it begins a journey through the digestive tract. Once in the small intestine, the cyst will divide and multiply to produce thousands of offspring which cause the unpleasant symptoms associated with *Giardia*: diarrhea, abdominal cramps, bloating, fatigue (being over tired), and weight loss. Not all persons who harbor *Giardia* in their intestinal tracts become ill with giardiasis. However, these so-called "asymptomatic carriers" of the *Giardia* cysts can shed them for years and spread the parasite.

No magic potion, vaccine, or medicine can prevent giardiasis. Only the symptoms of giardiasis can be treated. Quinacrine and metronidazole (Flagyl) are most commonly used. Unfortunately, there can be negative side effects from these drugs, such as dizziness, headache, nausea, and vomiting.

High concentrations of *Giardia* cysts found in water near beaver habitat led to the early belief that beavers were the main carriers of *Giardia*, thus the nickname "beaver fever." However, researchers have also found *Giardia* cysts in cats, dogs, horses, cattle, rabbits, marmots, ground squirrels, mountain sheep, elk, and many other mammals. It does seem that humans are still the primary sources and spreaders of *Giardia*. Therefore, improper waste disposal is the likely culprit.

As a hiker, skier, backpacker, hunter, or camper, you can prevent contamination of water supplies by using a little backcountry hygiene and courtesy in disposal of body wastes. Wastes should be kept at least 100 feet from any streams, springs, or drainage areas, and then covered with several inches of soil. The soil will help in the decomposition of the wastes and keep them away from insects and animals. When you consider that a single human stool specimen can contain over 300 million cysts, and that from 10 to 25 can cause infection, one incidence of careless backcountry hygiene can be disastrous.