



COLORADO ACADEMY OF FAMILY PHYSICIANS

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Living Healthy: Mountain Water Safety

Drinking Water Safety in Colorado High County

There is nothing as inviting as a cool, gurgling brook on a hot summer's day in Colorado. The water is so cool and clear and "natural" that it must be okay to drink, right? Not so. Have you seen the big herds of elk or the playful marmots in the high country? Well, they pollute the streams and water with some nasty organisms.

One of the parasite organisms found commonly in Colorado streams – giardia - can cause severe diarrhea, nausea and vomiting, fatigue, excessive, foul-smelling diarrhea and gas, and weight loss. Giardia can also cause malnutrition and lactose intolerance.

Approximately 20,000 Americans a year are infected with giardia and all ages are affected. The parasite can be transmitted one of three ways:

- Drinking contaminated water. As many fellow outdoor enthusiasts have discovered, taking a drink right out of the stream may give momentary pleasure, however, the long term consequences may not be so pleasant.
- Person to person transmission. This is common among intimate partners. Changing a diaper of an infant or small child with giardia and not washing carefully can transmit the organism.
- By food. After an incubation time of 1-2 weeks, the symptoms noted above start and can last for weeks. Although the illness can be treated with medication, sometimes the infection becomes chronic. Giardia is a very hearty organism that can form cysts that withstand freezing, drying and other insults; however, cooking can kill the organism.
- The disease is diagnosed by examination of a stool specimen, but since shedding of the organism can be sporadic, it often takes more than one specimen to get the diagnosis. There are effective treatments, but treatment failure is not uncommon.

To prevent infection, use the following precautions:

- When backpacking or taking long hikes, remember to take adequate water sources or bring a means to purify your water with water filters, purifiers or additives. Such as iodine.
- When disposing of diapers, especially in children with giardia, be sure to wash your hands thoroughly with soap and water. HAND SANITIZERS don't kill the cyst form of Giardia.
- Use barrier protection when intimate with someone with an infection.
- Boiling or heating water to 70 degrees C (approximately 170 degrees F) for 10 minutes will kill the cysts, but remember that the higher you travel, the lower the boiling point of water, so a longer cooking time is needed at the boiling point at 12,000 feet than at sea level.

Enjoy Colorado's great outdoors, but be aware!

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This information is provided as a public service by the Colorado Academy of Family Physicians. For information about diseases and conditions, visit the American Academy of Family Physicians consumer website at www.familydoctor.org.