



Public Health Information Sheet

Director
202-513-7217

Deputy Director
202-513-7224

Epidemiologist
202-513-7160

National Capital
202-619-7070

Northeast
978-970-5033

Southeast
404-562-3124
x697

Midwest
402-221-3786

InterMountain
303-969-2922

Desert Southwest
505-988-6040

Pacific West/Pacific
Islands/Alaska
510-817-1375
206-220-4270

Web Resources

NPS Public Health:
http://www.nps.gov/public_health/

CDC:
<http://www.cdc.gov>

State and Local Health Departments:
<http://www.cdc.gov/mmwr/international/relres.html>

Giardia

Giardia is a microscopic protozoan parasite that infects man and warm-blooded animals. People become infected when they ingest the cysts of this protozoan parasite in contaminated water or food. Giardiasis is the most prevalent water-borne disease in the United States. The parasite is wide spread in the U.S. including Alaska.

Symptoms of giardiasis typically last for about 2 weeks. They usually include severe diarrhea, nausea, abdominal cramps, fatigue and weight loss. The onset of symptoms normally occur within 7-10 days after exposure to the parasite. Symptoms are more severe in children. Persons with compromised immune systems including AIDS patients and persons receiving chemo- or radiation therapy are at greatest risk.

Humans and warm blooded domestic and wild animals, particularly beaver and muskrats, are the reservoir of this parasite. Giardia parasites are excreted in the feces. The environmentally resistant cysts can last for several months in water and can even withstand freezing for a short period of time.

The primary sources of this disease are surface waters contaminated by animals and water supplies contaminated by human sewage.

Large community outbreaks have occurred from drinking treated but unfiltered water. Smaller outbreaks have resulted from contaminated food and person-to-person transmission in daycare centers. Giardiasis also is frequently transmitted by ingesting untreated surface water and water from shallow wells.

Giardiasis is a common disease among hikers and campers who drink untreated surface water from lakes, streams and springs.

Exposure to this parasite can be minimized by:

- Avoiding ingesting untreated water from lakes, rivers, streams, and shallow wells (less than 25 foot deep).
- The most certain treatment to destroy Giardia is to bring water to a rolling boil for one minute (Add an additional minute for each 1,000 feet above sea level). Boiling will also destroy other organisms causing waterborne disease.
- A far less reliable treatment is the use of portable water filters combined with disinfection. Some claim to remove Giardia cysts, but test protocols are not uniform in the industry and many have not been tested in unbiased laboratories. Purchase only from reputable dealers, and check product literature to ensure that the filter is labeled according to filter manufacturing standards as at least an "Absolute" 1 micron filter, or one labeled as meeting American National Standards Institute (ANSI/NSF) (formerly the National Sanitation Foundation) International Standard #53 for "Cyst Removal" followed by disinfection. Add 8 drops of bleach or 20 drops of tincture of iodine per gallon of water and let stand for 30 minutes. No other filters are reliable for removing Giardia.

- For short trips, take a supply of water from home or from other treated domestic sources. Due to the lack of labeling and manufacturing standards, there is no assurance that bottled water is safer than public drinking water and may require boiling also.
- Practicing good personal hygiene targeting the need for proper handwashing before handling food, eating, and after changing diapers, and using the toilet.

Reference:

Health Information, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Department of Health and Human Services

If you have any questions, please contact a Regional Public Health Consultant, park sanitarian or call WASO Public Health.

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