

Giardia Infection

What is *Giardia*?

Giardia is a parasite that infects the intestines of humans and animals. When a person gets sick, the infection is called giardiasis, or 'beaver fever'. Giardiasis is usually a water-borne disease. *Giardia* is a common cause of diarrhea in B.C. and the world.

How would I be exposed to *Giardia*?

Giardia cysts are very hardy organisms that survive for long periods in the environment, particularly in cold water. You can ingest *Giardia* by:

- Drinking poorly treated surface water from sources such as streams, rivers, lakes or shallow wells that are contaminated by human or animal feces; or
- Swallowing contaminated water while swimming in lakes, ponds, streams, rivers, swimming pools and hot tubs; or
- Eating contaminated food.

How is *Giardia* spread?

Giardia is spread when feces from infected people or animals gets into the mouth.

This can happen by:

- Eating or drinking contaminated food or drink; or
- Contact with the feces of infected humans – for example after diaper changing, or during sexual contact; or
- Contact with the feces of an infected domestic or wild animal that is not followed by proper handwashing.

A person who is infected may not know they are passing the infection on to others because they may have mild or few symptoms.

What are the symptoms of giardiasis?

Giardiasis may cause diarrhea, stomach cramps, gas, bloating, frequent loose and pale greasy stools, nausea, weight loss, and fatigue.

Symptoms start about seven to 10 days after exposure to the parasite. Symptoms can last from three to 25 days or longer, and may last for months.

Often a person can be infected and have no symptoms. In some cases, symptoms can return after you have started to get better. Rarely, arthritis and poor absorption of fats and vitamins can occur after a *Giardia* infection.

How is giardiasis diagnosed and treated?

If you think you have giardiasis, see your family doctor for testing, advice and treatment. You will be asked to submit a stool sample for testing. *Giardia* is difficult to detect so you may have to submit more than one sample.

Your doctor will decide if treatment with anti-parasitic medication is necessary. After your infection, you may have difficulty digesting milk and milk products. This causes symptoms similar to those of a *Giardia* infection and can last several weeks. Avoid milk and milk products for a few weeks and then slowly add them back into your diet.

What should I do if I become infected with *Giardia*?

Giardia is passed in the feces and therefore people with diarrhea who cannot control their bowel movements should not go to work or school.

If you have a *Giardia* infection do not swim in lakes, ponds, streams, rivers, swimming pools and hot tubs while you have diarrhea and until at least 48 hours after the diarrhea has stopped.

If you are a food handler or health care worker it is possible for you to spread *Giardia* to others. Do not work while you have diarrhea or vomiting and do not return to work until 48 hours after your last loose stool or episode of vomiting.

Wash your hands well and often, which will help lessen the chance of spreading the infection to others.

Children in daycare who have diarrhea can be cared for in a supervised area away from other children until picked up by their parents. Children cannot return to daycare until 48 hours after their last loose stool or episode of vomiting. Children in daycares should be supervised by an adult when washing their hands.

If you recover without treatment, you may release *Giardia* in your stools for several months and possibly infect others. After using the toilet and before eating or preparing foods wash your hands well with liquid soap and water.

How can giardiasis be prevented?

- If your local Medical Health Officer has issued a Boil Water Advisory or notice for your community water system, take the advice seriously.
- Do not drink untreated surface water from springs, streams, rivers, lakes, ponds or shallow wells. It is likely contaminated with animal feces. When camping do not relieve yourself within 100 feet of a water source.
- Do not drink unpasteurized milk or juices.
- **Wash your hands** before eating or handling food, and after using the toilet, changing diapers, touching animals.
- Make sure children, especially those who handle pets, wash their hands carefully before eating and on a regular basis.
- Avoid contact with feces during sexual activity.

How can *Giardia* cysts be removed from water?

1. **Boiling:** Boil or filter water that is used for drinking, making ice cubes, washing uncooked fruits and vegetables, making baby formula, brushing teeth or rinsing dentures or contact lenses. Bring water to a rolling boil for at least one minute and then allow it to cool. At elevations over 2,000 meters (6,562 feet) you should boil water for at least two minutes to disinfect. Boiling will not purify water that is heavily polluted or chemically contaminated.

2. **Filtering:** To remove *Giardia* cysts, filters must have an absolute pore size of one micron or be certified by an organization accredited by the National Standards Foundation (NSF) for cyst removal. Jug-type water filters will not remove *Giardia*. Some built-in water filtration systems will remove *Giardia*, but they need regular and thorough maintenance to work well. Information on certification of treatment devices is available at www.scc.ca/.

***Giardia* parasites are moderately resistant to chlorine bleach.** If you have no other options, you can attempt to disinfect water with unscented household bleach. Add two drops of bleach per litre (nine drops of bleach per imperial gallon) of untreated water. The treated water should be stirred and allowed to stand for at least 30 minutes prior to use. Double the amount of bleach if the water is cloudy.

For more information contact your local Environmental Health Officer.



BC Centre for Disease Control
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