

# Giardiasis

This fact sheet is for informational purposes only. It is not intended to take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

## What is giardiasis?

Giardiasis (gee-are-dye-uh-sis) is a diarrheal disease caused by microscopic parasites called *Giardia*. These parasites can live in the intestines of many mammals, including humans. Although many species of *Giardia* are found worldwide, only *Giardia lamblia* (known also as *G. intestinalis*, *G. duodenalis*) causes infection in humans.

Giardiasis is a common cause of waterborne disease in humans. Giardiasis is sometimes called “beaver fever” after an outbreak in which hikers at Banff National Park became ill from drinking stream water contaminated with *Giardia* from beavers.

## How common is giardiasis?

In Ontario, between 2003 and 2009, there was an average of 12 confirmed cases of giardiasis reported per 100,000 persons each year.<sup>1</sup>

## What are the symptoms of giardiasis?

*Giardia* infection may cause a variety of intestinal symptoms, including:

- diarrhea
- bloating, gas or flatulence
- greasy stools that tend to float
- stomach or abdominal cramps
- upset stomach or nausea
- fatigue, and
- weight loss

Symptoms of giardiasis usually begin seven to 10 days after exposure, but it can also be as little as three days or as long as 25 days. The symptoms typically last two to six weeks, but may occasionally last longer.

Prolonged infection with *Giardia* can lead to complications, such as arthritis or damage to the cells which line the intestines.

Persons infected with *Giardia* may not have any symptoms. These asymptomatic individuals can still pass the disease on to others.

If you have any signs and symptoms of illness, and you have exposure to possible sources of *Giardia* parasite, contact your physician.

## How is giardiasis spread?

*Giardia* forms spore-or egg-like cells called cysts, which can survive outside the body for long periods of time. The cysts are a resting or dormant stage that helps the organism survive in unfavorable environmental conditions.

These cysts are released with the bowel movements of infected humans or animals. Giardiasis is spread when people accidentally ingest the parasite or its cyst. It takes only one to 10 cysts to cause infection. Approximately one million cysts could fit under a fingernail.

You can become infected by:

- ingesting [contaminated drinking or recreational water](#)

- touching your mouth with contaminated hands,
- putting something in your mouth that has come into contact with the droppings of infected animals or the stool of infected humans,
- eating raw or undercooked food that is contaminated,
- inadequately washing hands before preparing food, before eating, and after toileting or diapering, or
- exposure to feces of an infected individual through sexual contact.

## How is giardiasis diagnosed and treated?

Giardiasis is usually diagnosed by examination of stool samples. Patients may be asked to submit multiple stool samples because detection of *Giardia* can be difficult.

Several anti-parasitic medications are available to treat giardiasis. Your health care practitioner will decide if and what medication is needed for you. Persons with diarrhea should generally drink lots of liquids to avoid dehydration.

If you think you have giardiasis you should see your doctor for testing, advice and treatment.

## How can you prevent giardiasis?

The most important preventative measure is good hygiene.

Practice good [hand hygiene](#). Wash your hands with soap and water:

- after using the toilet
- after changing diapers
- after assisting others with the toilet
- after contact with animals
- after working in the garden, and
- before and after handling food

Avoid swallowing water while swimming in lakes, rivers or pools.

Avoid drinking water from shallow wells, rivers, lakes or streams. Only drink water that you know is uncontaminated. If you are not sure, treat the water yourself, for example, by boiling for at least five minutes.

Peel raw vegetables and fruits before eating. Use uncontaminated water to wash fruits and vegetables.

Giardiasis has been associated with camping and travelling. Campers and travellers should be aware if giardiasis is common in the area they will be visiting. For more information, consult a [travel medicine clinic](#) to assess personal risk and appropriate preventive measures.

## What causes giardiasis outbreaks?

Poor hand hygiene practices have been associated with outbreaks of giardiasis in daycare centers and institutions. Giardiasis outbreaks have also been associated with consumption of contaminated drinking and recreational water.

## References

1. Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted April 2010
2. Heymann. D.L. "Control of Communicable Diseases Manual". 19th Edition. 2008. American Public Health Association: Washington D.C.
3. [Public Health Agency of Canada](#)
4. [US Centers for Disease Control and Prevention](#)