What is giardia?

*Giardia lamblia* is a tiny parasite that can live in the intestines of humans and animals. The parasite is passed in the bowel movement of an infected person or animal. An outer shell protects the parasite. This protective shell allows the parasite to survive outside the body for long periods of time and helps it resist chlorine disinfection.

How long after infection do symptoms appear?

Symptoms generally appear within seven to 10 days, but can occur anywhere from three to 25 days after a person becomes infected.

What are the symptoms of giardia infection?

Often there are no symptoms with *giardia* infection. When symptoms do occur, they may include diarrhea, stomach cramps, bloating, upset stomach, fatigue and weight loss.

Who is at risk of giardia infection?

Everyone is at risk. However, some people are more at risk than others, including people who work at, or attend a child-care facility and anyone with a severely weakened immune system.

Examples of persons with weakened immune systems include those with HIV/AIDS, cancer and transplant patients who are taking certain immunosuppressive drugs and persons with a genetically weakened immune system.

If you have a severely weakened immune system, consult with your health care provider for more information.

How is an infection diagnosed?

The infection is diagnosed by collecting and testing stool (i.e., poop) samples. *Giardia* can be difficult to diagnose. This is why your health care provider may ask you to submit several stool samples over several days.

Can giardia infection be treated?

Specific kinds of antibiotics should be used to treat *giardia* symptoms. See your doctor or health care provider.

How is giardia infection spread?

The infection is spread when a person ingests (i.e., swallows) anything that has come in contact with the stool of a person or animal carrying the *giardia* parasite. Examples include:

- swallowing contaminated water from swimming pools, hot tubs, jacuzzis, lakes, rivers, springs, ponds or streams. Water from these sources can become contaminated with *giardia* by sewage or other contact with human or animal feces (i.e., poop).
- eating uncooked food contaminated with *giardia*. This is one reason why you should always thoroughly wash with safe water (boiled or bottled), all vegetables and fruits you plan to eat raw.
- swallowing *giardia* picked up from surfaces that have been in contact with stool from an infected person (e.g., toys, bathroom fixtures, change tables, diaper pails).
- person-to-person transmission of feces from an infected individual, particularly in child-care facilities or other settings where contact with dirty diapers occurs.
- animal-to-person transmission by handling animals or touching animal feces. This includes pets, farm or wild animals.

How can I prevent giardia infection?

- Wash your hands with soap and water before and after using the toilet, changing diapers, *before eating or preparing food*, and after handling pets, farm or wild animals.
- Do not drink unpasteurized milk or milk products.
• Do not drink water from lakes, rivers, springs, ponds or streams unless it has been adequately filtered or chemically treated to remove giardia.

• When traveling where the water supply may be unsafe, avoid drinking unboiled tap water and avoid uncooked foods washed with unboiled tap water. Bottled or canned carbonated beverages, seltzers, pasteurized fruit drinks and steaming hot coffee or tea are safe to drink.

• Avoid sex that involves contact with stool.

• If you work in a child or health care setting where you change diapers, be sure to wash your hands thoroughly with soap and warm water after every diaper change, even if you wear gloves.

• If you have giardia, avoid swimming in pools for at least two weeks after the diarrhea or loose stool has stopped. Giardia cysts are chlorine resistant and can still be passed in the stool of an infected person for several weeks after symptoms of infection have ended.

What else do I need to know?

There are extra steps you can take to reduce your risk of exposure to giardia:

• **Boil water** – Boil water for one minute, put it in a clean bottle and store it in the refrigerator. To be safe, make your ice from the boiled water.

• **Use filtered tap water** – Not all filters remove giardia. Those with the following labels are safe to use:
  - Tested and certified by NSF Standard 53 for cyst removal
  - Reverse osmosis
  - Absolute micron size of one micron or smaller

• **Use bottled water** – Not all bottled water is the same. Look for a label that says:
  - Reverse osmosis treated
  - Distilled
  - Filtered through an absolute one micron or smaller filter

Commercially packaged, noncarbonated soft drinks and fruit juices that do not require refrigeration until after they are opened (i.e., can be stored unrefrigerated) are also safe.

Nationally distributed brands of bottled or canned carbonated soft drinks are considered safe from giardia.

For more information

For more information about giardia infection, please contact your local public health nurse.