

## GIARDIASIS

Giardiasis is a gastrointestinal infection caused by a microscopic parasite called “Giardia lamblia”. This is a common parasite causing gastrointestinal illness in the United States. Giardiasis can be a problem in areas where sanitation is poor, in settings in which there may be behaviors which are conducive to transmission of fecal material that can cause diarrhea (e.g. day care centers).

A Giardia infection can be acquired when you ingest food or water which has been contaminated with the parasite. The parasite multiplies in the small intestine and is passed out with a bowel movement. Any food or drink which has become contaminated with infected stool can transmit the parasite. The infection can also be spread person-to-person when hands, which are contaminated with an infected person's stool, are brought in contact with the mouth. Swallowing as few as ten parasites can cause the infection. Person-to-person transmission is the main way that giardiasis is spread, such as in day care centers and institutions, where personal hygiene may be poor due to age (infancy, elderly) or disability. Giardia can also be spread in this manner in a household setting. Less often, giardia cysts can be found in unfiltered drinking water such as lakes and streams.

Giardia parasites have been found in the stools of many animals, including rodents, dogs, cats, cattle, and wild animals. Animals living near water supplies, such as beavers and muskrats, have been found to be infected with Giardia. The extent of direct animal-to-human transmission of Giardia is minimal; there is greater evidence of indirect transmission such as through contamination of water supplies.

Symptoms of giardiasis usually appear seven to ten days (and sometimes as long as four weeks) after ingesting the parasite. The most common symptoms are diarrhea, foul, greasy stools, abdominal cramps, bloating, increased gas, weakness, and weight loss.

Not all people infected with giardiasis get sick. Some people who are infected with the parasite may only have minor symptoms and some people may not have any symptoms at all. However, these people can still pass Giardia parasites in their stool and become a source of infection.

Giardiasis is usually diagnosed through a laboratory examination of a stool sample. Your physician will forward the stool sample to a laboratory which will use a microscope to look for the parasite. Several stool samples may need to be examined to detect the parasite. The disease can also be diagnosed through a sample of fluid or a biopsy from the small intestine.

There are several medications which are effective in treating the infection. They are only available by prescription from your physician. Other treatments for diarrhea, such as increased fluid intake, may also be recommended by our physician.

Giardiasis can be prevented by practicing good hygiene and using caution before drinking water from an unknown source.

Some general guidelines are:

1. Always thoroughly wash your hands with soap and water before meals, before preparing food, after having a bowel movement, after changing diapers, and after playing with your pets.
2. Do not drink untreated water from a surface water supply such as a pond, lake, or stream. Although the water may appear to be clean, it may contain Giardia parasites which cannot be seen without a microscope. If only untreated water is available, boil the water before drinking it.
3. If you are taking care of a person with giardiasis, use extra precautions after contact with the person's stool (for example, after changing diapers). Promptly and carefully dispose of any such material which has been contaminated with stool and always wash your hands after such contact.
4. If your source of drinking water is from a dug or another surface water, do not allow humans or animals to defecate (have bowel movements) near the water. In addition, appropriate water filtration systems can be effective in removing Giardia parasites from contaminated water. If all other sources for infection are eliminated (such as drinking water from streams or lakes while hunting, fishing, boating, camping, etc.), and the home water source is suspected, it can be tested. There is no routine test available for Giardia. However, the water sample can be tested for fecal bacteria. If fecal bacteria are present, the water supply can be assumed to be the source of infection, if all other possible sources of infection have been eliminated.
5. If you have a child in day care with Giardia or diarrhea, alert the day care provider so they can take special precautions to prevent the spread of infection to other children. The provider must in turn, notify the Epidemiology Program in the Division of Disease Control for further recommendations.

Adapted from the Massachusetts Department of Public Health Fact Sheets

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