

Livesay Expeditions & Adventure

Giardia

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Infectious Agent

Protozoan parasite *Giardia intestinalis* (formerly known as *Giardia lamblia* or *Giardia duodenalis*).

Mode of Transmission

Transmission occurs by—

- Ingesting fecally contaminated food or water, including water swallowed while swimming.
- Exposure to fecally contaminated environmental surfaces and objects.
- Fecal–oral person-to-person contact (e.g., diaper changing, caring for an infected person, certain sexual practices).

Occurrence

- Giardiasis transmission occurs worldwide.
- Outbreaks have been linked to: contaminated drinking water, recreational water, and food; contact with animals; and daycare settings

Risk for Travelers

Risk of infection increases with duration of travel and is highest for those who live in or visit rural areas, trek in backcountry areas, or frequently eat, drink, or swim in areas that have poor sanitation and inadequate treatment facilities for drinking water.

Clinical Presentation

- Symptoms usually begin 1–2 weeks after becoming infected with the parasite and are generally self-limiting within 2–4 weeks. However, some patients develop a syndrome of chronic diarrhea that may result in malabsorption. Rarely, reactive arthritis has also occurred, following infection with *Giardia*.
- Giardiasis can cause a variety of intestinal symptoms or signs, which include diarrhea (often with foul-smelling, greasy stools), abdominal cramps, bloating, flatulence, fatigue, anorexia, and nausea. These symptoms may lead to weight loss and dehydration. Fever and vomiting are uncommon. Some people infected with *Giardia* have no symptoms at all.

Diagnosis

- Because detection of *Giardia* can be difficult, patients may be asked to submit several stool samples over several days.
- Most often, stool specimens are examined microscopically by using different techniques (e.g.,

wet mount with iodine, trichrome, or immunofluorescent antibody staining, and/or enzyme immunoassays for detection of *Giardia* sp. antigens).

Treatment

- Diarrhea should be managed with adequate fluid replacement to prevent dehydration.
- Several antimicrobial drugs (i.e., tinidazole, metronidazole, nitazoxanide, paromomycin, furazolidone, quinacrine) are available by prescription for treatment of giardiasis. Treatment recommendations are available for each of these drugs in textbooks on internal medicine and infectious diseases.

Preventive Measures for Travelers

- No vaccine is available, and there is no recommended chemoprophylaxis.
- To prevent infection, travelers should be advised to follow food and water precautions described elsewhere in this book. Additionally, travelers should practice good hygiene (i.e., frequent handwashing), avoid swallowing water while swimming, and avoid fecal exposure during sexual activity.

References

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