



Giardia

# Overview

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BACKGROUND



TRANSMISSION



RISK FACTORS



SYMPTOMS



TREATMENT



PREVENTION



# Background

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- Most common intestinal parasite disease in the US.
- Infection rates rise in the late summer.
- Children are at higher risk than adults
  - Worldwide, it is the third leading cause of childhood diarrhea (behind rotavirus and cryptosporidium).
- Can be associated with travel, particularly to areas with poor sanitation.
- Can be foodborne or waterborne.
- Can cause outbreaks, particularly in daycare settings.



# Background

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- Parasite
- Flagellated unicellular eukaryotic microorganism.
- Forms cysts - allows for prolonged survival in moist environments.
- Low infectious dose - only 10 cysts needed to cause infection.
- Resistant to chlorination.

# Transmission

- Transmitted through fecal-oral route.
  - Ingestion of contaminated food or water.
  - Fecal incontinence/diaper use.
  - Close contact with an infected person.
  - Travel or exposure to poor sanitation.
  - Exposure to feces through sexual contact.
  - Contact with infected animals.
- Symptoms typically begin 7-10 days after infection but can have onset symptoms 3-25 days after exposure.



# Risk Factors

- People in childcare settings.
- People who are in close contact with someone who has the disease.
- Travelers within areas that have poor sanitation.
- People who have contact with poop during sexual activity.
- Backpackers or campers who drink untreated water from springs, lakes, or rivers.
- Swimmers who swallow water from swimming pools, hot tubs, splash pads, or untreated recreational water from springs, lakes, or rivers.
- People who get their household water from a shallow well.
- People with weakened immune systems.
- People who have contact with infected animals or animal environments contaminated with poop.



# Symptoms

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- Symptoms generally last anywhere from 2 to 6 weeks.
- Giardia infection (giardiasis) can cause a variety of intestinal symptoms:
  - Diarrhea
  - Gas
  - Foul-smelling, greasy poop that can float
  - Stomach cramps or pain
  - Upset stomach or nausea
  - Dehydration





# Treatment

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- It can be difficult to detect Giardia, and you may be asked to submit several stool samples collected over several days to see if you are infected.
- Many prescription drugs are available to treat giardiasis. Effective treatments include:
  - Metronidazole, tinidazole, and nitazoxanide.
  - Other medications include paromomycin, quinacrine, and furazolidone.
  - Some of these drugs may not be readily available in the United States.
- Although Giardia can infect all people, infants and pregnant women may be more likely to experience dehydration from the diarrhea caused by giardiasis.



# Prevention

- Wash your hands with soap and water during key times, especially:
  - before preparing food or eating, and
  - after using the bathroom or changing diapers.
- Avoid eating food and drinking water that might be contaminated with Giardia germs.
  - Properly treat water from springs, lakes, or rivers (surface water) while backpacking or camping if no other source of safe water is available.
  - Avoid swallowing water from swimming pools, hot tubs, splash pads, and untreated water from springs, lakes, or rivers (surface water) while swimming.
  - Store, clean, and prepare fruits and vegetables properly.
- Practice safe sex by reducing your contact with poop during sex or avoid having sex several weeks after you or your partner have recovered from giardiasis.

