CONDITION

Giardiasis

Giardiasis is an intestinal infection caused by the Giardia parasite, often causing diarrhoea, bloating, and stomach cramps.

WHAT IT IS
Parasitic infection of the small intestine

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Diarrhoea, bloating, stomach cramps, greasy stools

WHAT CAUSES IT
Infection with the Giardia parasite

HOW IT IS DIAGNOSED
Stool antigen, PCR, or microscopic testing

MAIN TREATMENT
Antiparasitic medicine and fluid replacement

CAN IT BE CURED?
Yes - treatment usually clears the infection

IS IT AN EMERGENCY?
Sometimes - severe dehydration needs emergency care

LONG-TERM OUTLOOK
Most people recover, though digestive symptoms may persist

Overview

Giardiasis, also called Giardia infection, is an infection of the small intestine. It is caused by a tiny parasite called Giardia duodenalis , which is also known as Giardia lamblia or Giardia intestinalis .

The parasite spreads through microscopic traces of infected stool. You can become infected by swallowing contaminated water or food, touching contaminated surfaces and then touching your mouth, or having close contact with someone carrying the parasite.

Giardiasis commonly causes diarrhoea, bloating, gas, stomach cramps, and tiredness. Stools may be pale, greasy, unusually smelly, or difficult to flush because the infection can interfere with fat absorption.

Some people have no symptoms but can still pass the parasite to others. Most people recover, especially with appropriate treatment. However, dehydration, weight loss, and lingering digestive problems can occur.

Symptoms

Symptoms usually begin about one to two weeks after exposure, although timing is not always predictable. They often last for several weeks and may seem to improve and then return.

Common symptoms include:

The diarrhoea usually does not contain blood. A high fever is also uncommon. Blood in the stool, black stools, a persistent high fever, or severe abdominal pain may point to another problem and should be medically assessed.

Giardia can make it harder for the small intestine to absorb nutrients. This may produce floating or oily-looking stools and lead to weight loss if symptoms continue.

Some people develop temporary difficulty digesting lactose, the natural sugar in milk. Milk and some dairy foods may then cause extra bloating, cramps, or diarrhoea, even after the infection has cleared.

Young children may show fewer wet nappies, unusual sleepiness, poor feeding, or slowed weight gain. These can be signs that diarrhoea is affecting hydration or nutrition.

- Watery or greasy, foul-smelling diarrhoea
- Bloating, excess gas, and stomach cramps
- Nausea, reduced appetite, and tiredness
- Weight loss or signs of dehydration

Causes and risk factors

Giardia exists in a hardy form called a cyst. Cysts leave the body in stool and can survive in water or on surfaces. Infection occurs when someone swallows them. Very few may be enough to cause infection.

Giardiasis is not caused by stress, food intolerance, or poor personal cleanliness. It can affect anyone. The risk is higher when exposure to contaminated stool or water is more likely.

Common routes and risk factors include:

People with certain immune system conditions may have infections that are harder to clear.

Contact with infected animals is another possible route, although many Giardia types found in animals do not usually infect people.

- Drinking untreated water from lakes, streams, springs, or shallow wells
- Swallowing water in pools, splash areas, lakes, or rivers
- Travelling where water or sanitation may be unsafe
- Living with or caring for someone who has giardiasis
- Working in or attending childcare settings
- Sexual activity involving possible contact with stool
- Preparing food with contaminated hands or water

Diagnosis

Symptoms alone cannot confirm giardiasis because several infections and digestive conditions can cause similar problems.

Diagnosis usually involves testing a stool sample for Giardia. Tests may look for parasite proteins, called antigens; genetic material using a PCR test; or the parasite itself under a microscope.

Giardia may not be present in every stool sample. For this reason, you may be asked to provide three samples collected on separate days. Some laboratories use a test panel that looks for Giardia and several other causes of diarrhoea at the same time.

Rarely, further testing of fluid or tissue from the small intestine is considered when symptoms continue but stool tests have not explained them.

Tell the healthcare professional about recent travel, untreated water, swimming, childcare contact, household illness, and how long the diarrhoea has lasted. Also mention recent medicines and any condition that affects your immune system.

Treatment and management

Giardiasis is treated with prescription antiparasitic medicine. Several medicines can kill Giardia, but the best choice is influenced by factors such as age, pregnancy, other health conditions, previous treatment, and local availability. A healthcare professional can explain the expected benefits and possible side effects.

People without symptoms do not always need medicine. Treatment may still be considered

when there is a risk of passing the infection to others, such as within a household or childcare setting.

Replacing lost fluid is an important part of recovery. Take frequent drinks if diarrhoea makes larger amounts difficult. An oral rehydration solution contains a measured balance of water, salts, and sugar and may be useful when fluid losses are significant.

Children, older adults, and people who are pregnant or have ongoing health conditions may become dehydrated more quickly. Seek advice early if they are struggling to drink or are passing much less urine.

Complete any prescribed treatment as directed. Symptoms that continue do not always mean the parasite is still present. Possible reasons include reinfection, difficulty completing treatment, reduced response to a medicine, temporary lactose intolerance, or bowel sensitivity after the infection.

If testing is needed after treatment, several stool samples may again be required. Repeating antiparasitic treatment without confirming ongoing infection may expose you to side effects without helping post-infectious symptoms.

Household members are not automatically treated. They may need assessment or testing if they have symptoms or if infections keep returning within the household.

Complications

The most immediate complication is dehydration. Diarrhoea removes water and salts from the body. Warning signs include a very dry mouth, dizziness, dark urine, reduced urination, or unusual drowsiness.

Giardiasis can also interfere with absorption of fat and other nutrients. A prolonged infection may lead to weight loss or undernutrition. In children, severe or repeated infection can affect growth and weight gain.

After the parasite has cleared, some people continue to have loose stools, bloating, or cramps. Temporary lactose intolerance can last for weeks or longer. A smaller number develop post-infectious irritable bowel syndrome, which causes ongoing bowel sensitivity after an infection.

Persistent symptoms deserve routine follow-up. They may require repeat testing or assessment for another cause rather than more antiparasitic medicine.

Prevention

Giardiasis cannot always be prevented, but careful hygiene and safer water practices reduce the chance of infection and spread.

Wash your hands with soap and water after using the toilet, changing nappies, helping someone with toileting, and before preparing or eating food. Alcohol hand sanitiser alone is not as reliable against Giardia cysts.

Do not prepare food for other people while you have diarrhoea. Clean bathroom surfaces that may be contaminated, and do not share towels when someone in the home is unwell.

Avoid swallowing water while swimming. Stay out of pools, splash areas, lakes, and rivers while you have diarrhoea and for two weeks after it stops because Giardia can continue to spread.

When the safety of drinking water is uncertain, boiling is the most dependable household method. Bring water to a rolling boil for at least one minute. At elevations above 6,500 feet, boil it for at least three minutes. A filter must be specifically designed and certified to remove parasites or cysts; many ordinary jug filters are not suitable. Chemical disinfectants may be less reliable against Giardia.

During sexual activity, barriers can reduce contact with stool. Wash hands, genitals, and the area around the anus before and after sex, and clean sex toys between uses.

Living with it and what to expect

Many people begin to improve within days of starting effective treatment, but bowel habits may take longer to settle. Untreated symptoms often last several weeks and can sometimes come and go for longer.

Drink enough to keep your urine pale unless you have been advised to restrict fluids for another medical reason. Eat according to your appetite. Small, plain meals may feel easier during active diarrhoea, but a highly restricted diet is not usually needed.

Dairy foods may temporarily worsen symptoms if the infection has reduced your ability to digest lactose. This does not necessarily mean you have developed a permanent intolerance. A healthcare professional or dietitian can help if avoiding dairy affects your nutrition or symptoms continue.

Return to work, school, or childcare is influenced by symptoms and local public health rules. Staying home while you have diarrhoea helps protect others. Food handlers, healthcare workers, and childcare staff may have additional requirements.

Most people have no lasting damage once the infection clears. Recovery can be slower when

there has been major weight loss, repeated infection, or post-infectious bowel sensitivity. Follow-up is appropriate if diarrhoea returns, weight is not recovering, or digestive symptoms continue for weeks.

When to get medical help

Arrange a routine medical assessment if diarrhoea lasts more than several days, repeatedly returns, or follows untreated water exposure, travel, or contact with someone who has giardiasis. Testing is especially useful before taking an antiparasitic medicine.

Seek prompt medical advice if you:

Get emergency help for signs of severe dehydration, such as fainting, confusion, extreme drowsiness, little or no urine, or an inability to keep any fluids down. A child who is difficult to wake, has no tears, or has very few wet nappies also needs urgent assessment.

- Cannot drink enough to replace fluid losses
- Are passing much less urine than usual
- Have ongoing weight loss or difficulty eating
- Have blood in your stool, black stools, high fever, or severe pain
- Are pregnant, immunocompromised, or caring for an affected young child
- Still have symptoms after completing treatment

Common questions

How long does giardiasis last?

Symptoms often last two to six weeks, but they can continue longer or return. Effective treatment usually shortens the infection. Bloating, loose stools, or lactose intolerance may remain after tests show that Giardia has cleared.

Can giardiasis go away without treatment?

It sometimes clears without medicine, particularly in people without symptoms. However, ongoing diarrhoea can cause dehydration and weight loss, and an untreated person may continue spreading the parasite. Medical assessment can confirm the cause and whether treatment is appropriate.

Is giardiasis contagious?

Yes. Giardia spreads when microscopic traces of infected stool reach another person's mouth.

Household contact, nappy changing, contaminated food or water, and sexual contact involving stool can all spread it. It does not usually spread through ordinary coughing or sneezing.

Can I get giardiasis again?

Yes. Previous infection does not provide dependable protection. Reinfection can happen through the same contaminated water source or through close contact with someone carrying Giardia.

Why do I still have symptoms after treatment?

Possible reasons include reinfection, an infection that did not clear, temporary lactose intolerance, or post-infectious bowel sensitivity. Repeat stool testing can help distinguish an active infection from symptoms that remain after the parasite is gone.

Can I swim after giardiasis?

Avoid swimming while you have diarrhoea and for two weeks after it stops. Giardia can survive in recreational water, and swallowing a small amount of contaminated water may infect someone else.

Sources

- Centers for Disease Control and Prevention: About Giardia Infection
- Centers for Disease Control and Prevention: Clinical Testing and Diagnosis for Giardia Infection
- Centers for Disease Control and Prevention: Patient Care for Giardia Infection
- Centers for Disease Control and Prevention: Giardia Infection Prevention and Control
- NHS: Giardiasis
- Infectious Diseases Society of America: 2017 Clinical Practice Guidelines for Infectious Diarrhea