



An Overview on Giardiasis: Its Causes, Symptoms, and Treatment

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DESCRIPTION

Giardiasis, often referred to as beaver fever, is a common gastrointestinal infection caused by the protozoan parasite *Giardia intestinalis* (formerly known as *Giardia lamblia* or *Giardia duodenalis*). This microscopic parasite can infect humans and various animals, leading to a range of digestive symptoms. Giardiasis is a prevalent waterborne disease worldwide, and it can affect individuals of all ages.

Causes of giardiasis

The primary cause of giardiasis is the *Giardia intestinalis* parasite. This parasite has a two-stage life cycle: The cyst and the trophozoite. The cyst stage is infectious and can survive in the environment for weeks to months, making waterborne transmission a common route of infection. When ingested, the cysts pass through the stomach and release trophozoites in the small intestine, where they attach themselves to the intestinal lining, causing the characteristic symptoms of giardiasis.

Transmission of giardiasis

Giardiasis is most commonly transmitted through the consumption of contaminated water or food. Water sources such as lakes, rivers, and untreated or poorly treated drinking water can harbor *Giardia* cysts. Additionally, it can spread through direct person-to-person contact, particularly in settings where hygiene and sanitation practices are lacking, like daycare centers or households with infected individuals.

Symptoms of giardiasis

The symptoms of giardiasis can vary in severity and may not appear in all infected individuals. Common symptoms include:

Diarrhea: Watery or greasy stools are a hallmark symptom of giardiasis and may persist for several weeks.

Abdominal cramps: Individuals with giardiasis often experience abdominal discomfort, bloating, and cramps.

Flatulence: Increased gas production and bloating are common due to the disruption of normal digestive processes.

Nausea and vomiting: Some people may experience nausea and occasional vomiting.

Fatigue: Giardiasis can lead to fatigue and weakness.

Weight loss: Persistent diarrhea and malabsorption of nutrients can result in weight loss.

Foul-smelling stools: Stools may have a particularly unpleasant odor.

It's important to note that symptoms can manifest differently in children and adults. While some individuals may remain asymptomatic carriers, others can develop severe and debilitating symptoms.

Treatment of giardiasis

Giardiasis is typically treated with medication prescribed by a healthcare provider. The most commonly used drugs for giardiasis treatment include:

Metronidazole: This antibiotic is effective in eliminating *Giardia* parasites and is often prescribed as the first-line treatment for giardiasis. It is generally well-tolerated but can cause side effects such as nausea and a metallic taste in the mouth.

Tinidazole: Another antibiotic, tinidazole, is an alternative treatment option and is sometimes preferred if metronidazole cannot be used.

Nitazoxanide: Nitazoxanide is an antiprotozoal medication that can be used to treat giardiasis, particularly in children.

It's important to complete the full course of treatment, even if symptoms improve before the medication is finished. This helps ensure the complete eradication of the parasite and reduces the risk of recurrence.

Giardiasis is a common gastrointestinal infection caused by the *Giardia intestinalis* parasite. While it can cause uncomfortable symptoms like diarrhea, abdominal cramps, and fatigue, the

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infection is typically treatable with medication. Preventing giardiasis involves practicing good hygiene, consuming safe water and food, and taking precautions when traveling to areas with poor sanitation. By understanding the causes, symptoms,

diagnosis, treatment, and prevention of giardiasis, individuals can reduce their risk of infection and better manage the condition if it occurs. If symptoms persist or worsen, it is essential to seek medical attention promptly.