Cryptosporidiosis is an infection caused by the parasite Cryptosporidium that can lead to diarrhea.

Cryptosporidium parasites are spread through direct contact with infected people or animals or exposure to fecal contamination of water, soil, food, or the hands of exposed individuals. Once ingested, the parasite causes infection in the small intestine. Rarely, Cryptosporidium can cause disease outside of the gastrointestinal tract as well. The disease’s effects range from no symptoms to death in certain cases and depend on many factors, including the underlying health of the infected patient.

Cryptosporidiosis occurs around the world but is more common in regions with inadequate sanitation and hygiene. Cryptosporidium parasites are resistant to many common disinfectants including chlorine, which can make infection difficult to eradicating.

Outbreaks of cryptosporidiosis from contaminated drinking water occurred in Texas in 1984 and Milwaukee in 1993. More recently, large-scale outbreaks have been linked to recreational water activities and child care centers.

Symptoms of Cryptosporidiosis

The most common symptoms are watery diarrhea, stomach pain, nausea, vomiting, fever, and dehydration. Some people do not have any symptoms. In people with an underlying condition that compromises the immune system, such as HIV/AIDS, cancer, immune-suppressing medication, or malnutrition, cryptosporidiosis can cause more severe symptoms. It can take up to 2 weeks after infection for symptoms to appear. In most people, symptoms last 1 to 2 weeks; longer illness is possible in people with decreased immunity.

Diagnosis and Treatment

Diagnosis is made by microscopic detection of Cryptosporidium in stool samples. Clinicians may need to specifically request Cryptosporidium testing because it is not routinely conducted at all laboratories. Obtaining a diagnosis is important for receiving the correct effective treatment for this infection.

Most people with healthy immune systems can recover from cryptosporidiosis with rest and fluids to prevent dehydration. Antidiarrheal medication can help alleviate symptoms but should be taken only after consultation with a clinician. Nitazoxanide is an antiparasitic agent that can be used to treat patients who have a healthy immune system. Reducing immune suppression can also help control infection when applicable, although it can be difficult to cure in people who are immunosuppressed.

Risk of Acquiring Cryptosporidiosis

People who travel internationally, children, workers in child care facilities, hikers and campers who drink unfiltered water, people who drink contaminated water or swallow it while swimming, people who handle infected cattle, exposure to contaminated feces through sexual contact, and immunocompromised and older adults have a risk of cryptosporidiosis.

Prevention

Practice good hygiene by washing hands thoroughly with soap and water for at least 20 seconds, as alcohol-based sanitizers do not kill Cryptosporidium effectively. Toys and other surfaces at child care facilities should be sanitized carefully with soap and water, especially during outbreaks. Avoid ingesting untreated water or ice, particularly while traveling in areas with potentially unsafe water. Do not allow children with diarrhea to swim. If you have diarrhea, do not swim for at least 2 weeks after symptoms disappear. Avoid swallowing water in pools or other bodies of water, such as lakes, rivers, and shallow wells. Specialized filters that remove Cryptosporidium are available for preparation of drinking water and can be purchased online or at retail stores.