

CRYPTOSPORIDIOSIS

What is cryptosporidiosis?

Cryptosporidiosis is an illness caused by the protozoan *Cryptosporidium*, a single-celled parasite. The most common species causing disease in humans are *C. hominis*, which only infects humans, and *C. parvum*, which infects humans, cattle and other mammals.

***Cryptosporidium* is resistant to most disinfectants and can survive for days in treated recreational water**

What are the symptoms of cryptosporidiosis?

- Diarrhea, which is usually watery and profuse and often accompanied by abdominal cramping
- Nausea
- Vomiting
- Fever
- Headache
- Loss of appetite
- General feeling of discomfort

Some people infected with *Cryptosporidium* may not get sick but could pass the parasite onto others.

All people are presumed susceptible to infection with *Cryptosporidium*. In most healthy people with normal immune systems, signs and symptoms generally persist for four weeks or less, although they may improve and then worsen during that time. However, immune-compromised individuals may be unable to clear the parasite and may have a much more severe and long-lasting illness. Examples of immune-compromised people include those receiving cancer chemotherapy, kidney dialysis patients, people on steroid therapy, people infected with HIV and patients with Crohn's disease.

The infection is diagnosed by identifying the parasite during a microscopic examination of the stool.

How does cryptosporidiosis spread?

Cryptosporidium is shed in the feces of infected humans, domestic animals and wild animals. Infection occurs when the organism is ingested by a person. It may only take the ingestion of a few microscopic *Cryptosporidium* organisms for illness to occur.

Cryptosporidiosis can be acquired by person-to-person or animal-to-person transmission and waterborne. Person-to-person transmission can occur by direct contact or, potentially, by food handling if the infected person does not wash their hands properly after using the washroom. Waterborne transmission can occur from swallowing contaminated drinking or recreational water (e.g., swimming pools, lakes and rivers). Infected individuals can shed the organism in stool for several weeks after they recover from the illness. Outside the body, the organism may remain infective for two to six months or longer in a moist environment.

PUBLIC HEALTH

1-877-464-9675

TTY 1-866-512-6228

york.ca



Because cryptosporidiosis is transmitted by the fecal-oral route, people with the greatest potential to transmit the organism include infected people who have diarrhea, people who are incontinent of stool, people with poor personal hygiene and diapered children.

Individuals who are more likely to be infected are children under two, animal handlers, travelers, men who have sex with men and close personal contacts of infected individuals (e.g., family, healthcare and daycare workers).

The degree to which a previously infected person is immune to subsequent *Cryptosporidium* infection is unclear. There may be some resistance to reinfection, but it can likely be overwhelmed by a sufficiently large dose of the parasite, resulting in a recurrence of the illness.

How is cryptosporidiosis treated?

Although generally not required, treatment is available and may be prescribed by a physician in certain cases.

How can cryptosporidiosis be prevented?

- Wash hands thoroughly after using the washroom or changing diapers and before eating or handling food
- Wash hands thoroughly after contact with animals (e.g., cattle and other domesticated and wild animals)
- Wash all fruits and vegetables with safe water or peel before eating
- Cook and reheat all food from animal sources at appropriate temperatures
- Avoid drinking unpasteurized (raw) milk
- Avoid drinking untreated and inadequately filtered surface water when camping or when travelling in developing countries
- Drink water from a safe supply. If you are unsure of the supply, drink bottled water or boil water to a rolling boil for one minute. Remember that ice cubes made from contaminated water may also carry the parasite

Note: Many commercially available water filters for home use are ineffective at filtering this organism because of its small size (about four microns).