

Cryptosporidiosis

What is cryptosporidiosis?

Cryptosporidiosis (pronounced: "crypto-spore-idi-osis") is a disease caused by a microscopic, single-celled parasite called *Cryptosporidium parvum*.

Who can get cryptosporidiosis?

Anyone, but it may be more common in persons under two years of age, those who travel, work with animals, or those that are in close personal contact with infected individuals. People with impaired immune systems, such as people with HIV infection or that are receiving chemotherapy are more susceptible to the disease.

Cryptosporidium parvum has also been responsible for disease outbreaks in children in daycare centers.

What are the symptoms of cryptosporidiosis?

The major symptoms are watery diarrhea and abdominal cramping. Vomiting and low-grade fever may occur. Symptoms may come and go and generally last for two weeks, but may continue for a month. However, it is possible for people to be infected with *Cryptosporidium parvum* and not have any symptoms of the disease.

Can cryptosporidiosis cause severe problems?

In persons with impaired immune systems, cryptosporidiosis can cause severe, life-threatening diarrhea and has been associated with respiratory and gall bladder disease. Persons at the greatest risk for severe problems include those with HIV infection, receiving cancer chemotherapy, or taking drugs that suppress the immune system.

How soon after exposure do symptoms occur?

After exposure, illness may occur in about two to ten days, with an average onset of symptoms in seven days.

How is cryptosporidiosis spread?

People or animals become infected by swallowing the egg-like oocysts (pronounced "oo-oocyst") of *Cryptosporidium parvum*. This happens when people consume drinking water or food contaminated with fecal matter containing the oocysts. People can also become infected after handling objects contaminated with fecal matter, or after coming into contact with stools of people or animals that are infected. Unwashed hands can then transfer the oocysts to the mouth, infecting the person. Persons can also be infected by ingesting contaminated water while using recreational waters such as streams, rivers, and lakes. Also, some people have become sick after swimming in swimming pools contaminated with fecal material from infected persons.

Where is this parasite found?

Cryptosporidium parvum is found world-wide, including the United States. It typically infects the small intestine of humans and animals. When a person or animal is infected, the parasite reproduces and forms microscopic oocysts that are passed in the stool of infected people or animals. Oocysts begin to be shed with the onset of symptoms of the disease. Any dog, cat, farm animal or wild animal, including birds, fish, and reptiles, can become infected, though calves are the most likely animals to be infected. Human sewage is treated to remove disease-causing organisms. However, fecal matter containing oocysts passed by infected animals can be present in the soil or washed into streams and lakes. Oocysts can survive six months or more in water, and are very resistant to disinfectants. These oocysts can then contaminate surface waters used for drinking water, irrigation, or recreation.

What should I do if I think I have cryptosporidiosis?

See your physician as soon as possible, especially if your immune system is suppressed. If your doctor suspects cryptosporidiosis, you will be asked to submit a stool sample.

What is the treatment for cryptosporidiosis?

People with healthy immune systems usually get well on their own. People with diarrhea need to be sure to drink plenty of fluids to prevent dehydration. Cryptosporidiosis is sometimes treated with an anti-parasitic drug. Your physician will determine whether treatment is necessary.

Should infected people be excluded from school or work?

Since *Cryptosporidium* is passed in the stool, children and staff in daycare centers, health care workers, and people who handle food should not go to school or work while they have diarrhea. After diarrhea ends, persons may return to work or school but they should carefully wash their hands after using the toilet. Oocysts may still pass in the stool for weeks after symptoms subside.

Can people who get cryptosporidiosis get it again?

It is unknown whether past infection means people are protected from getting it again.

How can cryptosporidiosis be prevented?

1. Avoid water or food that may be contaminated, including unpasteurized milk. Do not drink water directly from streams, lakes, springs or any unknown source. If you suspect your drinking water is unsafe, bring it to a rolling boil for one minute prior to using.
2. Always wash hands with soap and water after using the toilet or changing diapers, before handling food, after handling manure from animals, especially from calves with diarrhea, and after gardening or other direct contact with soil.
3. If you work in a child-care center where you change children's diapers, wash hands properly between each child. If you use gloves, change gloves between each child.
4. If you take care of cryptosporidiosis patients, wash hands after bathing patients, emptying bedpans, changing soiled linen, or otherwise coming in contact with the patient's stools.
5. If you have cryptosporidiosis, wash your hands often to prevent spreading the disease to other members of your household.
6. Persons with diarrhea should not use public swimming facilities.

Where can I obtain additional information about cryptosporidiosis?

Additional information is available at: http://www.cdc.gov/crypto/gen_info/index.html.