LOUISIANA DEPARTMENT OF HEALTH
Public Health

Infectious Disease Epidemiology Section
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Information on Cryptosporidiosis Public Information

What is cryptosporidiosis?

Cryptosporidiosis is a disease caused by microscopic protozoan parasites, *Cryptosporidium*, that can live in the intestines of humans and animals. The parasite is protected by an outer shell that allows it to survive outside the body for long periods of time and makes it very resistant to chlorine-based disinfectants.

During the past 20 years, *Cryptosporidium* has become recognized as one of the most common causes of waterborne disease (recreational water and drinking water), in humans in the United States. The parasite is found in every region of the U.S. and throughout the world.

Who gets cryptosporidiosis?

You can become infected after accidentally swallowing the parasite. *Cryptosporidium* may be found in soil, food, water, or surfaces that have been contaminated with the feces from infected humans or animals. Contaminated water may include water that has not been boiled or filtered, as well as recreational water sources.

Several community-wide outbreaks of cryptosporidiosis have been linked to drinking municipal water or recreational water contaminated with *Cryptosporidium*.

Cryptosporidium is not spread by contact with blood.

People who are most likely to become infected with *Cryptosporidium* include:

- Children who attend day care centers, including diaper-aged children
- Child care workers
- Parents of infected children
- People who take care of other people with cryptosporidiosis
- International travelers
- Backpackers, hikers and campers who drink unfiltered, untreated water
- People who drink from untreated shallow, unprotected wells.
- People, including swimmers, who swallow water from contaminated sources
- People who handle infected cattle
- People exposed to human feces through sexual contact.

How is *Cryptosporidium* spread?

Cryptosporidium lives in the intestines of infected humans or animals and is passed in their stool. Millions of *Cryptosporidium* germs can be released in a bowel movement from an infected human or animal. Shedding of *Cryptosporidium* in the stool begins when the symptoms (e.g., diarrhea) begin, and can last for weeks after the symptoms stop.

Cryptosporidium can be spread:

- By putting something in your mouth or accidentally swallowing something that has come into contact with stool of a person or animal infected with *Cryptosporidium*.
- By swallowing recreational water (e.g., water in swimming pools, hot tubs, Jacuzzis, fountains, lakes, rivers, springs, ponds, or streams) contaminated with *Cryptosporidium.* Recreational water can be contaminated with sewage or feces from humans or animals.
- By eating uncooked food contaminated with *Cryptosporidium*. Thoroughly wash with uncontaminated water, all vegetables and fruits you plan to eat raw.
- By swallowing water or beverages contaminated with stool from infected humans or animals.
- By touching your mouth with contaminated hands. Hands can become contaminated through a variety of activities, such as touching surfaces (e.g., toys, bathroom fixtures, changing tables, diaper pails) that have been contaminated by stool from an infected person, changing diapers, caring for an infected person, and handling an infected cow or calf.
- By exposure to human feces through sexual contact.

What are the symptoms of cryptosporidiosis?

The most common symptom of cryptosporidiosis is watery diarrhea. Other symptoms include: stomach cramps or pain, dehydration, nausea, vomiting, fever and weight loss.

Some people will have no symptoms at all. While the small intestine is the site most commonly affected, *Cryptosporidium* infections could possibly affect other areas of the digestive tract or the respiratory tract.

How soon do symptoms appear?

Symptoms of cryptosporidiosis generally begin in 2 to 10 days (average - 7 days) after becoming infected with the parasite.

In persons with healthy immune systems, symptoms usually last about 1 to 2 weeks. The symptoms may go in cycles in which you may seem to get better for a few days, then feel worse again before the illness ends.

How long is a person able to spread cryptosporidiosis?
A person is able to spread *Cryptosporidium* for at least 2 weeks after their diarrhea stops.

How is a cryptosporidiosis diagnosed?
Your health care provider will ask you to submit stool samples to see if you are infected.

What is the treatment for cryptosporidiosis?
Nitazoxanide has been FDA-approved for treatment of diarrhea caused by *Cryptosporidium* in people with healthy immune systems and is available by prescription. Consult with your health care provider for more information.

Most people who have healthy immune systems will recover without treatment. Diarrhea can be managed by drinking plenty of fluids to prevent dehydration.

Young children and pregnant women may be more susceptible to dehydration. Rapid loss of fluids from diarrhea may be especially life threatening to babies. Therefore, parents should talk to their health care provider about fluid replacement therapy options for infants. Anti-diarrheal medicine may help slow down diarrhea, but a health care provider should be consulted before such medicine is taken.

People who are in poor health or who have weakened immune systems (those with AIDS; cancer and transplant patients who are taking certain immunosuppressive drugs; and those with inherited diseases that affect the immune system) are at higher risk for more severe and more prolonged illness. The effectiveness of nitazoxanide in immunosuppressed individuals is unclear.

HIV-positive individuals who suspect they have *Cryptosporidium* should contact their health care provider. For persons with AIDS, anti-retroviral therapy that improves immune status will also decrease or eliminate symptoms of *Cryptosporidium.* However, even if symptoms disappear, cryptosporidiosis is often not curable and the symptoms may return if the immune status worsens.

If your CD4+ cell count is below 200/mm3, *Cryptosporidium* is more likely to cause severe symptoms and complications, including prolonged diarrhea, dehydration, and possibly death.

If your CD4+ count is above 200/mm3, your illness may not last more than 1 to 3 weeks, or slightly longer. However, you could still carry the infection, which means that the *Cryptosporidium* parasites are living in your intestine but are not causing illness. As a carrier of *Cryptosporidium,* you could infect other people. If your CD4+ count later drops below 200/mm3, your symptoms may reappear. For persons taking immunosuppressive drugs, the *Cryptosporidium* infection usually resolves when the doses are reduced or the drugs are stopped.

What can be done to prevent the spread cryptosporidiosis?

- Wash your hands frequently with soap and water, especially after using the toilet, after changing diapers, and before eating or preparing food.
- Do not swim in recreational water if you have cryptosporidiosis, and for at least 2 weeks after the diarrhea stops. You can pass Cryptosporidium in your stool and contaminate water for several weeks after your symptoms have ended. You do not even need to have a fecal accident in the water. Immersion in the water may be enough for contamination to occur. Water contaminated in this manner has resulted in outbreaks of cryptosporidiosis among recreational water users.
- Avoid sexual practices that might result in oral exposure to stool (e.g., oral-anal contact).
- Avoid close contact with anyone who has a weakened immune system.
- Children with diarrhea should be excluded from child care settings until the diarrhea has stopped.

Note:
You may not be protected in a chlorinated recreational water venue (e.g., swimming pool, water park, splash pad, spray park) because *Cryptosporidium* is chlorine-resistant and can live for days in chlorine-treated water.

Should children be excluded from school/day care?
Children with *Cryptosporidium* should be excluded until 24 hours after diarrhea stops.