

WATER

Cryptosporidium Fact Sheet

What is cryptosporidiosis?

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites of the genus *Cryptosporidium*. Once an animal or person is infected, the parasite lives in the intestine and passes in the stool. 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. Both the disease and the parasite are commonly known as “crypto.”

During the past two decades, crypto has become recognized as one of the most common causes of waterborne disease within humans in the United States. The parasite may be found in drinking water and recreational water in every region of the United States and throughout the world.



How is cryptosporidiosis spread?

Cryptosporidium lives in the intestine of infected humans or animals. Millions of crypto germs can be released in a bowel movement from an infected human or animal. Consequently, *Cryptosporidium* is found in soil, food, water, or surfaces that have been

contaminated with infected human or animal feces. If a person swallows enough of the parasite they become infected. You **cannot** become infected through contact with blood. The parasite can be spread by:

- Accidentally putting something into your mouth or swallowing something that has come into contact with feces of a person or animal infected with *Cryptosporidium*.
- Swallowing recreational water contaminated with *Cryptosporidium* (Recreational water includes water in swimming pools, hot tubs, jacuzzis, fountains, lakes, rivers, springs, ponds, or streams that can be contaminated with sewage or feces from humans or animals.) **Note:** *Cryptosporidium* can survive for days in swimming pools with adequate chlorine levels.
- Eating uncooked food contaminated with *Cryptosporidium*. Thoroughly wash with clean, safe water all vegetables and fruits you plan to eat raw.
- Accidentally swallowing *Cryptosporidium* picked up from surfaces (such as bathroom fixtures, changing tables, diaper pails, or toys) contaminated with feces from an infected person.

What are the symptoms of cryptosporidiosis?

The most common symptom of cryptosporidiosis is watery diarrhea. Other symptoms include dehydration, weight loss, stomach cramps or pain, fever, nausea or vomiting. Some people with crypto 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 or the respiratory tract.



Who is most at risk for cryptosporidiosis?

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; international travelers; backpackers, hikers, and campers who drink unfiltered, untreated water; swimmers who swallow water while swimming in swimming pools, lakes, rivers, ponds, and streams;

people who drink from shallow, unprotected wells; and people who swallow water from contaminated sources. Contaminated water includes water that has not been boiled or filtered. Several community-wide outbreaks of cryptosporidiosis have been linked to drinking municipal water or recreational water contaminated with *Cryptosporidium*.

Who is most at risk for getting seriously ill with cryptosporidiosis?

Although Crypto can infect all people, some groups are more likely to develop more serious illness. Young children and pregnant women may be more susceptible to the dehydration resulting from diarrhea and should drink plenty of fluids while ill. If you have a severely weakened immune system, you are at risk for more serious disease. Your symptoms

may be more severe and could lead to serious or life-threatening illness. Examples of persons with weakened immune systems include those with HIV/AIDS; cancer and transplant patients who are taking certain immunosuppressive drugs; and those with inherited diseases that affect the immune system.

Has *Cryptosporidium* bacteria been found in Oklahoma public water supplies?

Any public water system that serves over 10,000 people must test regularly for *Cryptosporidium* in both raw and treated water. *Cryptosporidium* has been found in some raw water sources in Oklahoma but, as of this writing, *Cryptosporidium* has not been found in treated drinking water from any of the state's public water systems.

The Department of Environmental Quality has a standard requiring that all systems that use surface water as a source must filter the water before distributing it to the public. A properly designed and operated filtration plant can remove a high percentage of *Cryptosporidium* organisms. Thus the

risk of cryptosporidiosis is probably smaller in Oklahoma than in other parts of the US where filtration is not practiced.

Most public water supply wells are likely not susceptible to *Cryptosporidium* contamination. However, springs and shallow wells can sometimes be susceptible if the water that they yield has not been filtered underground. The DEQ has evaluated public water supplies that use springs or shallow public water wells to determine if they are subject to contamination from surface water. Those that were found to be surface water impacted are no longer being used or are now being filtered.

Where can I get more information about crypto?

The web site at the Center for Disease Control has a very good Fact Sheet on *Cryptosporidium* and cryptosporidiosis. Information from CDC has been used in preparation of this Fact Sheet and more information may be found at www.cdc.gov/