

Cryptosporidium

Q: 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 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 the leading cause of waterborne disease among humans in the United States

Q: Where is *Cryptosporidium* found?

Cryptosporidium lives in the intestines of infected humans and animals. Millions of Crypto parasites can be released in a bowel movement from an infected human or animal; consequently, it is found in soil, food, and water sources such as swimming pools, hot tubs, jacuzzies, fountains, lakes, rivers, springs, ponds, or streams; or surfaces that have been contaminated with infected human or animal feces.

Q: How is Cryptosporidiosis spread?

While you cannot become infected with Crypto through contact with blood, the parasite can be spread in several ways.

- Putting something into your mouth or swallowing something that has contacted the feces of a person or animal infected with *Cryptosporidium*.
- Swallowing recreational water contaminated with *Cryptosporidium* from sewage or feces of humans or animals. *Cryptosporidium* can survive for days in swimming pools with adequate chlorine levels.
- Eating uncooked food contaminated with *Cryptosporidium*. Thoroughly wash all vegetables and fruits you plan to eat raw with clean, safe water.
- Accidentally swallowing *Cryptosporidium* picked up on hands from surfaces contaminated with feces from an infected person, for example, bathroom fixtures, changing tables, diaper pails or toys.



Q: 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. Symptoms usually last 1 to 2 weeks in people with healthy immune systems but can last more than 4 weeks. Some people with Crypto will have no symptoms at all. While the small intestine is the site most affected, Cryptosporidium infections could affect other areas of the digestive or respiratory tracts.

Q: Where are the most common sources for contracting Cryptosporidiosis?

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

- those involved in daycare centers - diaper-aged children, childcare workers, and parents of infected children,
- outdoorsmen who drink unfiltered, untreated water such as backpackers, hikers, campers,
- swimmers who may swallow water while swimming in 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.

Q: Who is most at risk of getting seriously ill with Cryptosporidiosis?

Although Crypto can infect all people, some groups are more likely to develop more serious illnesses.

Young children and pregnant women may be more susceptible to dehydration resulting from diarrhea and should drink plenty of fluids while ill.

People with severely weakened immune systems are at risk for more serious disease, as symptoms may be 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 affecting the immune system.

Q: Are Cryptosporidium parasites commonly found in Oklahoma public water supplies?

DEQ requires all public water supply systems to use surface water as a source to filter and disinfect the water before distributing it to the public. A properly designed and operated filtration plant can remove a high percentage of Cryptosporidium organisms. Because of this requirement, 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 be susceptible if the water that they yield has not been filtered underground. DEQ has evaluated public water supplies using springs or shallow 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.

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Q: How can I get my water tested for Crypto?

Currently, there are no accredited labs within Oklahoma. For referrals, please contact DEQ's State Environmental Laboratory at **(405) 702-1000** or by emailing selsd@deq.ok.gov to obtain an approved list of labs.

Q: Where can I get more information about Crypto?

The U.S. Centers for Disease Control and Prevention (CDC) maintains a website devoted to Cryptosporidium: <https://tinyurl.com/ykhmm6tn>. Here you can find general information about Crypto as well as information on symptoms, how it spreads, prevention, treatment, and more.