

FACT SHEET

***Cryptosporidium* and Drinking Water from Private Wells**

What is cryptosporidiosis?

Cryptosporidiosis is a diarrheal disease caused by microscopic parasites, *Cryptosporidium*, that can live in the intestine of humans and animals and is passed in the stool of an infected person or animal. Both the disease and the parasite are commonly known as "Crypto." 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 2 decades, Crypto 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 United States and throughout the world.

How do I become infected with Crypto?

Crypto may be found in soil, food, water, or surfaces that have been contaminated with feces from infected humans or animals. You can become infected after accidentally swallowing the parasite. Crypto is not spread by contact with blood.

Where and how does Crypto get into drinking water?

Crypto is found in every part of the United States and throughout the world. Millions of crypto can be released in a bowel movement from an infected human or animal. Crypto may be found in water sources such as private wells that have been contaminated with feces from infected humans or animals. Water can be contaminated through sewage overflows, polluted storm water runoff, agricultural runoff, etc.

What are the symptoms of Crypto?

The most common symptom of cryptosporidiosis is watery diarrhea. Other symptoms include:

- Stomach cramps or pain
- Dehydration
- Nausea
- Vomiting
- Fever
- Weight loss

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

These symptoms generally begin 2-10 days (average 7 days) after infection and last about 1-2 weeks in healthy individuals. People with weakened immune systems (e.g., person with HIV/AIDS, cancer patients, and transplant patients) or the elderly may experience a more serious infection that can lead to severe, if not life-threatening, illness. 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.

What should I do if I think I have Crypto?

If you suspect that you have Crypto, see your health care provider.

How is a Crypto infection diagnosed?

Your health care provider will ask you to submit stool samples to see if you are infected. Because testing for Crypto can be difficult, you may be asked to submit several stool specimens over several days. Tests for Crypto are not routinely done in most laboratories. Therefore, your health care provider should specifically request testing for the parasite.

What is the treatment for Crypto?

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

How can I remove Crypto from my drinking water?

Heat the water to a rolling boil for at least 1 minute (at altitudes greater than 6,562 feet [$>2,000$ meters], boil water for 3 minutes). Water should then be stored in a clean container with a lid and refrigerated.

An alternative to boiling water is using a point-of-use filter. Not all home water filters remove Crypto. Filters that are designed to remove Crypto should have one of the following labels:

- Reverse osmosis,
- Absolute pore size of 1 micron or smaller,
- Tested and certified by NSF Standard 53 for cyst removal, or
- Tested and certified by NSF Standard 53 for cyst reduction.

If you want to know more about these filters, please contact NSF International, an organization for public health and safety through standards development, product certification, education, and risk-management.

NSF International
789 N. Dixboro Road
P.O. Box 130140
Ann Arbor, Michigan 48113-0140
Phone number: 800-673-8010 or 888-99-SAFER
Fax: 734-769-0109
Email: info@nsf.org
Web site: <http://www.nsf.org>

You may also disinfect your well. It is important to note that crypto is extremely resistant to chlorination, making chlorination an ineffective intervention. Contact your local health department for recommended procedures. Remember to have your well water tested regularly after disinfection to make sure the problem does not recur.

From <http://www.cdc.gov/ncidod/dpd/healthywater/factsheets/crypto.htm>



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