



Cryptosporidium Infection

What is *Cryptosporidium*?

Cryptosporidium is a parasite that infects the intestines. When you get sick from the infection the illness is called cryptosporidiosis. The most common symptom associated with *Cryptosporidium* infection is diarrhea.

The number of people who have gotten sick because of *Cryptosporidium* infection in B.C. has decreased in recent years. This is most likely because of improvements to drinking water treatment.

How can I become infected with *Cryptosporidium*?

Cryptosporidium can be spread by water, food, or fecal-oral transmission from an infected person or animal. Fecal-oral transmission is when contaminated feces particles are ingested.

Contaminated water is a major source of the spread of cryptosporidiosis. *Cryptosporidium* can survive in lakes, ponds, creeks and streams. You can become infected if you drink or accidentally swallow water while you swim.

You can also become infected by eating raw or undercooked food contaminated with *Cryptosporidium*.

Cryptosporidium can also spread from person-to-person in settings where there is fecal incontinence and poor hygiene, such as child care centers. The risk is greatest for young children who are not yet toilet trained. These children can also spread the infection to other people in their families.

What are the symptoms of cryptosporidiosis?

Cryptosporidiosis may cause frequent watery diarrhea, stomach cramps, nausea, vomiting, mild fever and dehydration. However, you can be infected and have no symptoms.

Symptoms typically start 2 to 10 days after exposure to the parasite, with an average of 7 days. Symptoms usually last for 1 to 2 weeks in people who are otherwise healthy.

In some cases, symptoms can return after you have started to get better.

The infection may last longer in people with a weakened immune system. People with HIV, those who have had an organ or bone marrow transplant, and those who have had cancer treatment may get serious infections. Young children and the elderly may be at greater risk of getting dehydrated.

How is cryptosporidiosis diagnosed and treated?

If you think you have cryptosporidiosis, or any persistent diarrhea or vomiting, see your health care provider for testing, advice and follow-up. You will be asked to submit a stool sample for testing. *Cryptosporidium* is difficult to detect so you may have to submit more than one sample.

Your health care provider will decide if treatment with medication is necessary. People with cryptosporidiosis should drink plenty of fluids to prevent dehydration.

What should I do if I become infected with *Cryptosporidium*?

Cryptosporidium is passed in the feces; therefore people with diarrhea who cannot control their bowel movements should not go to work or school. If you have a *Cryptosporidium* infection do not swim in lakes, ponds, streams, rivers, swimming pools or hot tubs while you have diarrhea or are vomiting for at least 48 hours after the diarrhea and/or vomiting has stopped, or as instructed by your local health authority. Avoiding this activity will help to ensure that other swimmers do not become infected.

If you are a food handler or health care worker it is possible for you to spread *Cryptosporidium* to others. Do not work while you have diarrhea or are vomiting, and do not return to work until at least 48 hours after your last loose stool or episode of vomiting, or as advised by your local health authority. Wash your hands well and often, which will help lessen the chance of spreading the infection to others.

Children in daycare who have diarrhea can be cared for in a supervised area away from other children until picked up by their parents. Children should not return to daycare until at least 48 hours after their last loose stool or episode of vomiting, or as advised by your local health authority.

Children in daycares should be supervised by an adult when washing their hands. For more information, see [HealthLinkBC File #85 Hand Washing for Parents and Children](#).

Even after you feel better, *Cryptosporidium* may still be in your stools for several weeks and you can still infect others.

How can cryptosporidiosis be prevented?

- If a Boil Water Notice has been issued for your community water system, take the advice seriously and follow the instructions provided.
- If you have a weakened immune system, you should discuss your risk of cryptosporidiosis with your health care provider. This includes people with HIV/AIDS, cancer and transplant patients taking immunosuppressive drugs. People who wish to take extra precautions can boil their drinking water, as outlined below.
- Do not drink untreated surface water from a spring, stream, river, lake, pond or shallow well. It is likely contaminated with animal feces.
- When camping do not relieve yourself within 30 metres of a water source.
- Do not drink unpasteurized milk or juices.
- Wash your hands before eating and handling food, and after using the toilet, changing diapers, or touching animals.
- Make sure children, especially those who handle pets, wash their hands carefully before eating and on a regular basis.
- Avoid uncooked food or drinks prepared with untreated water, especially during international travel.
- Use safe sex practices and try to avoid contact with feces during sexual activity.

How can *Cryptosporidium* be removed from water?

If your water supply comes from an untreated surface water source, you will need to disinfect water used for drinking, making ice cubes, washing uncooked fruits and vegetables, making baby formula, brushing teeth or rinsing dentures. You can remove *Cryptosporidium* by using the following disinfection methods:

Boiling

Bring water to a full rolling boil for at least 1 minute. If using an automatic shut-off kettle, make sure the water has boiled for 1 minute. If you are over 2,000 meters (6,500 feet) above sea level, boil water for at least 2 minutes. Let the water cool. Always store your clean water in clean containers made for storing food or water. Boiling will not purify water that is heavily polluted or chemically contaminated.

Filtering

To remove *Cryptosporidium* cysts, filters must have an absolute pore size of 1 micron or less, and be certified by the National Sanitation Foundation (NSF) International or another accredited third party agency.

Jug-type water filters (such as Brita®), will not remove *Cryptosporidium*. Some built-in water filtration systems will remove *Cryptosporidium*, but they need regular and thorough maintenance to work well.

Ultraviolet (UV) Treatment

UV units for disinfection are also available. Check with local water purification suppliers or your local environmental health officer for more information. The treatment unit should be certified by NSF International, or another accredited third party agency for cyst removal or inactivation.”

Other Treatment

Distillation units and combination (filtration and UV) units are also available. Check with local water purification suppliers or your local environmental health officer for more information.

It is important to note that *Cryptosporidium* are resistant to chlorine so treating water with chlorine is generally not effective in removing the parasite

For More Information

For more information on disinfecting water, see [HealthLinkBC File # 49b How to Disinfect Drinking Water](#), or contact your local Environmental Health Officer.

For information on the certification of treatment devices, visit the Standards Council of Canada at www.scc.ca/.

For more information on the National Sanitation Foundation (NSF), visit www.nsf.org.

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/healthfiles or your local public health unit.

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