

Cryptosporidium Infection

What is *Cryptosporidium*?

Cryptosporidium is a parasite that infects the intestines. When a person gets sick, it is called cryptosporidiosis. Cryptosporidiosis is a water-borne disease. *Cryptosporidium* is a common cause of diarrhea in B.C. and the world.

How would I be exposed to *Cryptosporidium*?

Cryptosporidium are very hardy organisms that survive for long periods in the environment including in cold water. You can ingest

Cryptosporidium oocysts by:

- Drinking poorly treated surface water from sources such as streams, rivers, lakes or shallow wells that are contaminated by human or animal feces; or
- Swallowing contaminated water while swimming in lakes, ponds, streams, rivers, swimming pools and hot tubs.

How is *Cryptosporidium* spread?

Cryptosporidium is spread when feces from infected people or animals get into the mouth by:

- Eating or drinking contaminated food or drink; or
- Contact with the feces of infected people that is not followed by proper hand washing, such as after diaper changing, or during sexual contact; or
- Contact with the feces of domestic or wild animals, including pets and farm animals that is not followed by proper hand washing.

What are the symptoms of cryptosporidiosis?

Cryptosporidiosis may cause frequent watery diarrhea, stomach cramps, nausea, vomiting, mild fever and dehydration. Young children and the elderly may be at risk of getting dehydrated

Symptoms start two to 10 days after exposure to the parasite, with an average of seven days. Symptoms usually last for one to two weeks in people who are otherwise healthy. The infection may last longer in people with a weakened immune system. People with AIDS, those who have had an organ or bone

marrow transplant, and those who have had cancer treatment are examples of people who may get serious infections.

Often a person can be infected and have no symptoms. In some cases, symptoms can return after you have started to get better.

How is cryptosporidiosis diagnosed and treated?

If you think you have cryptosporidiosis, or any persistent diarrhea see your family doctor for testing, advice and follow-up. You will be asked to submit a stool sample for testing. Your doctor will give you treatment advice to suit your particular needs, which may include medications to stop the diarrhea. People with cryptosporidiosis should drink 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 and hot tubs while you have diarrhea and until at least 48 hours after the diarrhea has stopped. 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 transmit *Cryptosporidium* to others. Do not work while you have diarrhea or vomiting and do not return to work until 48 hours after your last loose stool or episode of vomiting. Wash your hands well and often, which will help you to recover and 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 cannot return to daycare until 48 hours after their last loose stool or episode of vomiting.

Children in daycares should be supervised by an adult when washing their hands.

When you recover you may excrete *Cryptosporidium* in your stools for several weeks and possibly infect others. After using the toilet and before eating or preparing foods, wash your hands well with liquid soap and water.

How can cryptosporidiosis be prevented?

- If your local Medical Health Officer has issued a Boil Water Advisory or notice for your community water system, take the advice seriously.
- If you have a weakened immune system, you should discuss your risk of cryptosporidiosis with your doctor. 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 100 feet of a water source.
- Do not drink unpasteurized milk or juices.
- Avoid uncooked food or drinks prepared with untreated water, especially during international travel.
- **Wash your hands** before eating and handling food, and after using the toilet, changing diapers, or after touching animals.
- Make sure children, especially those who handle pets, wash their hands carefully before eating and on a regular basis.
- Avoid contact with feces during sexual activity.

How can *Cryptosporidium* be removed from water?

There are two ways to remove *Cryptosporidium* from water:

1. **Boiling:** Boil or filter water from sources that are used for drinking, making ice cubes, washing uncooked fruits and vegetables, making baby formula, brushing teeth or rinsing dentures. Bring water to a rolling boil for at least one minute and then allow it to cool. At elevations over 2,000 meters (6,562 feet) you should boil water for at least two minutes to

disinfect. Boiling will not purify water that is heavily polluted or chemically contaminated.

2. **Filtering:** To remove *Cryptosporidium* oocysts, filters must have an absolute pore size of one micron or be certified by an organization accredited by the National Standards Foundation (NSF) for oocyst removal. Jug-type water filters will not remove *Cryptosporidium*. Some built-in water filtration systems will remove *Cryptosporidium*, but they need regular and thorough maintenance to work well. Information on certification of treatment devices is available at www.scc.ca/.

Other types of water treatment units, such as distillation units and combination (filtration and ultraviolet) units are also available. Check with local water purification suppliers or your local environmental health officer for more detailed information.

Cryptosporidium are resistant to chlorine.

Treating water with chlorine will NOT remove the parasite.

For more information contact your local Environmental Health Officer.



BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

For more BC HealthFile topics visit www.bchealthguide.org/healthfiles/index.stm, or visit your local public health unit.

Call the BC NurseLine to speak to a registered nurse, available 24-hours every day:

- In Greater Vancouver, call 604-215-4700
- In BC, call toll-free 1-866-215-4700
- Deaf and hearing-impaired, call 1-866-889-4700
- Pharmacist available 5pm to 9am every day
- Translation services in over 130 languages upon request.

Visit BC HealthGuide OnLine – a world of health information you can trust at www.bchealthguide.org/