



What Is Cryptosporidium?

Cryptosporidium (pronounced krip-toe-sporid-ee-um) is a parasite that can live in the intestines of humans, farm animals, wild animals, and household pets. Although there are several species of Cryptosporidium, only one species, *Cryptosporidium parvum*, is known to cause infection in humans.

The parasite, which is too small to be seen without a microscope, is protected by an outer shell called an oocyst (oh-oh-cist). This protective shell allows it to survive outside the body for long periods of time.

When a person or animal swallows *Cryptosporidium* oocysts, the parasite comes out of its shell and can cause infection. More *Cryptosporidium* oocysts are then produced and passed in the feces (bowel movements) of the infected person or animal.

Where is Cryptosporidium Found?

Animal droppings and human feces are the most common sources of *Cryptosporidium*. Therefore soil, drinking water, recreational water, food, hands, and other surfaces contaminated by such wastes can contain *Cryptosporidium* as well.

How can Cryptosporidium Affect My Health?

If you swallow *Cryptosporidium* oocysts, 2 to 10 days later you may get a disease called

cryptosporidiosis. Symptoms may include diarrhea, which could be watery, stomach cramps, upset stomach, and a slight fever.

If you are healthy and have a normal immune system, your symptoms usually will last for 2 weeks or less, although during that time your condition may improve and then worsen.

People who recover from their initial illness may continue to pass *Cryptosporidium* in their feces for up to two months. During this 2-month period they may spread the disease to others.

Although some people who swallow *Cryptosporidium* will not get sick, they can still pass the organism in their feces.

If you have a severely weakened immune system, you may have cryptosporidiosis for a longer period, and it could lead to serious or life-threatening illness. You should talk with your health care provider to learn how to avoid cryptosporidiosis. Examples of people with weakened immune systems include those with HIV/AIDS, cancer and transplant patients taking certain immunosuppressive drugs, and people with inherited diseases that affect the immune system.

How Would I Know If I Have Cryptosporidiosis?

The only way to tell if you have cryptosporidiosis is to have your feces analyzed in a laboratory. Because most people recover from the infection without visiting a doctor, they may never know if *Cryptosporidium* was the cause of their illness.

Is There a Treatment for Cryptosporidiosis?

Presently, there is no drug that can cure cryptosporidiosis. Most people with a healthy immune system will recover on their own.

Young children and persons with a weakened immune system may need special treatment from a doctor to replace fluids lost during the illness. If you have diarrhea, you should drink plenty of fluids and may also wish to take over the counter anti-diarrhea medication.

How Is Cryptosporidiosis Spread?

You can become infected by swallowing *Cryptosporidium*. Even a small amount may cause infection. Some sources of the disease are:

Feces

People infected with *Cryptosporidium* can pass the infection to others through soiled diapers, clothing, bedding, or other items. You should always wash your hands after touching items that may be contaminated.

Infected persons may have small amounts of feces containing *Cryptosporidium* on their skin throughout the genital area, including the thighs and buttocks. Sex that may involve contact with feces, including oral and anal sex, can lead to infection with *Cryptosporidium*.

The feces of animals, especially animals less than 6 months old or animals with diarrhea can contain *Cryptosporidium*. You should always wash your hands after touching animals, cleaning up their feces, cleaning their cages or stalls, or visiting barns or other areas where these animals live.

Food

Food that is grown in or has fallen upon soil contaminated with feces. Unpasteurized milk and dairy products that may have been contaminated with feces. Food contaminated by being handled by someone who is infected and does not wash their hands carefully, or food

that is washed with *Cryptosporidium* contaminated water.

Water

Water in lakes, rivers, streams, ocean bays, swimming pools, hot tubs, Jacuzzis, and recreational water parks can be contaminated with *Cryptosporidium*. When swimming, if you drink any water or accidentally swallow it, you may get cryptosporidiosis.

Neither the chlorine used to disinfect swimming pools nor the types of filters used in most swimming pools can be depended upon to kill or remove *Cryptosporidium*.

Contaminated drinking water or ice may be a source of *Cryptosporidium* infection. Unlike most germs, *Cryptosporidium* is not completely removed or killed by treatment methods most commonly used to disinfect drinking water.

How Can I Protect Myself?

Always wash your hands thoroughly with soap and hot water. Any time you may have touched human or animal feces. Always wash your hands after using the bathroom, changing diapers, or handling animals. You can also become infected by touching objects that are contaminated with feces such as faucet handles, diaper changing tables, or bedpans. After working in soil. Soil can become contaminated when an animal with cryptosporidiosis leaves its droppings there.

Avoid Contaminated Food

Food that will be eaten uncooked should be washed with purified (boiled or filtered) water before serving. Do not drink or eat unpasteurized milk, dairy products, or juices and ciders.

Know the Source of Your Water

Do not drink or swallow water directly from rivers, lakes, streams, the ocean, swimming pools, hot tubs, or Jacuzzis. If you travel to a less developed region, you may want to avoid drinking water that has not been boiled or filtered to remove Cryptosporidium.

Should I Have My Water at Home Tested for Cryptosporidium?

Home tests for Cryptosporidium are generally not recommended because they are expensive and impractical. This is especially true if you are served by a municipal water system that is already providing this service. The test requires a large amount of water (about 100-400 gallons) and many hours of analysis by a specially trained microbiologist.

For more information on Cryptosporidium testing in your local water system, contact your water provider or the agency that sets rules for water systems. If you have a private drinking water source, routine maintenance should include annual testing for bacterial contamination. This may provide an indication of possible contamination.

What Should I do if My Water Utility Reports Cryptosporidium in My Drinking Water?

Current municipal water treatment practices may not remove all Cryptosporidium from drinking water. Drinking water systems that routinely test for Cryptosporidium are likely to find it occasionally. If Cryptosporidium is found in your drinking water, public health and water supply officials will look at many measures of

water quality and alert the public about any additional precautions that might be necessary. If you are advised to boil your water, do so. Do not drink tap water or eat uncooked products prepared with tap water such as food or ice, unless you boil the water for three full minutes.

What About Boiling or Home Water Filters?

Boiling your drinking water for 3 minutes is the best way to get rid of Cryptosporidium. When boiling is not possible, there are many different types of home water filters that you can use.

If you are interested in a specific brand of filter and want to find out if it removes Cryptosporidium you can contact NSF International, 1-800-673-8010 or visit their website and check to see if the manufacturer is listed. Visit www.nsf.org.

NSF International is an independent testing group that **some** filter manufacturers use to certify their products.