

Germs

1. How are germs that can make me sick kept out of my drinking water?

Disinfectant is added to drinking water at the treatment plant. Chlorine is the most common disinfectant used in the United States to control waterborne bacterial and viral diseases such as typhoid and cholera. The City of Lawrence also uses monochloramine as the final disinfectant to ensure that water is properly disinfected and reduce the formation of disinfection byproducts in the distribution system.

2. Could my drinking water transmit the AIDS virus?

There is absolutely no evidence that AIDS can be transmitted through drinking water. There is no danger from drinking water for three reasons. First and most important, you can't get AIDS by drinking the virus; it must get into the blood directly. Second, the virus is very weak outside the body and rapidly becomes noninfectious. Finally, even if present in water sources, the virus is easily killed during the disinfection step of drinking water treatment.

Cryptosporidium

3. What are *Cryptosporidium* and cryptosporidiosis?

Cryptosporidium is a protozoan parasite that can live in the intestines of humans and animals (hosts). Outside of the hosts the microbe is protected by a shell called an oocyst (OH-oh-cist), so it is like a seed of a plant, very tough and long lasting. Once swallowed, the microbe emerges from its shell and infects the lining of the intestine. When this happens, some people get a disease called cryptosporidiosis. In people, the usual time between swallowing this microbe and getting sick is from 2 to 10 days. The major symptom is severe watery diarrhea with cramping abdominal pain, which lasts about 10 days to 2 weeks for people with normal immune systems. Thus, although cryptosporidiosis is an unpleasant disease, it is not a dangerous one to people with normal immune systems.

4. Where do the microbes that cause cryptosporidiosis come from?

They are in the stools of infected animals such as cattle, lambs, wild animals, and people. The wastes from these animal and human sources get into the environment and then into surface waters, rivers, lakes, and streams from runoff over land (rain or melting snow and ice) and wastewater.

5. What should I do if I think I have cryptosporidiosis?

See your doctor. Because routine stool examinations frequently do not test for the protozoa that cause cryptosporidiosis, the laboratory needs to use special test available just for this organism.

6. Is drinking water the only source of *Cryptosporidium*?

No. There are many other sources. Remember, for all of these sources, the common factor is contamination from stools of infected humans or animals.

7. I'm worried about *Cryptosporidium* in my water. Should I have water tested?

You can discuss this with your water utility. These tests are expensive, costing from \$500 to \$700.

8. How can I keep from getting cryptosporidiosis?

If you have been made aware of a cryptosporidiosis outbreak, avoid contaminated water or food. Wash your hands after using the toilet and before handling food. Avoid drinking water directly from lakes and rivers. Avoid unpasteurized dairy products. Wash your hands after contact with pets and after gardening and other contact with soil.

9. Will a home water treatment device protect me from the microbes that cause cryptosporidiosis?

Neither the US Environmental Protection Agency, the Centers for Disease Control and Protection, nor AWWA maintains a list of home treatment devices that are satisfactory. NSF International can supply a list of filters that they have tested that will meet NSF Standard 53. Call (800) 673-8010 or check the filter label for substantiation of testing and validation to NSF International Standards. Of course, one minute of boiling (three minutes at higher altitudes) will always work.