

## Drinking Water - Another Reason to Protect Lake Tahoe

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Lake Tahoe is considered one of the clearest and cleanest bodies of water in the world. Yet, while many people are aware of widespread efforts to protect its incredible transparency, they might not be aware of the need to protect the lake as a source of drinking water.

In fact, several Nevada communities pump drinking water right out of the lake. Because the water quality is so good, these water suppliers do not need to install expensive filtration plants. Instead, they chlorinate and ozonate the water to kill the small quantities of bacteria and viruses in the water. On the California side, many communities draw from groundwater, but the North Tahoe Public Utility District draws municipal water from the lake, treating it with a combination of chlorination and ultraviolet radiation to make sure it is disinfected.

The Nevada Tahoe Water Supplier Association (NTWSA) was recently formed to ensure compliance with the Federal Safe Drinking Water Act on the Nevada shore of Lake Tahoe. This organization seeks to educate residents and visitors about ways that we can keep disease-causing germs (called pathogens) out of Lake Tahoe.

Two troublesome pathogens have occasionally been detected in local streams in low concentrations. These are the parasites, *Giardia lamblia* and *Cryptosporidium parvum*. These microscopic, single-celled organisms are generally referred to simply as *Giardia* and *Cryptosporidium*. They can infect people through contaminated and

untreated drinking water, or by coming into contact with the feces of an infected person or animal.

Both *Giardia* and *Cryptosporidium* can cause gastrointestinal distress. The greater the number of cysts a person ingests, the higher the probability that the person will become ill. The symptoms generally include mild to severe diarrhea, abdominal cramps, weight loss, bloating, and vomiting. The chances of getting sick from a treated water supply are extremely rare, but if you drink straight from lakes or streams without using some kind of filtration or disinfection, you run a greater risk. The incubation period, or time from exposure to onset of symptoms, for *Giardia* is anywhere from three to 25 days.

Most residences at Lake Tahoe are served by water supply systems that treat the water. However, some older residences still bring water directly from the lake into their home through their own water intake. Owners of such properties should consider alternative water supplies or invest in a home water treatment system.

*Giardia*, the more common of the two parasites, can be treated with antibiotics. On the other hand, if you contract *Cryptosporidium*, you must rely on your body's own immune system to clear the infection, because there currently isn't a drug therapy that's effective against *Cryptosporidium*. Severe cases of *Giardia* and *Cryptosporidium* can be fatal for young children, very elderly citizens, and for people with compromised immune systems.

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Water bodies are most often contaminated with these parasites from the fecal matter of infected humans, dogs, cats, cattle, horses, deer, elk, bears, muskrats, rats, mice and some birds. Because dogs can carry it, it is important that dog owners clean up pet waste and dispose of it in the trash whether they are at home, on the sidewalk, in the park, or at the beach.

Hikers and campers should always purify water taken from streams or lakes before drinking or cooking with it. Boiling water for five minutes kills the cysts, and high quality camping water filters will remove them from drinking water (check filter specifications).

Luckily, Lake Tahoe is so pristine that the chances of getting sick from Giardia or Cryptosporidium are very low. Following these recommendations will help protect the lake, our water quality and your health.

NTWSA is one of the many organizations at Lake Tahoe working to prevent water pollution. It is composed of staff from Kingsbury General Improvement District, Edgewood Water Company, Zephyr Cove Utility Company (Douglas County), Glenbrook Utility Company, and the Round Hill General Improvement District. Incline Village General Improvement District (IVGID) is a member and staffs the association. For more info contact Sarah Tone, IVGID WASTE NOT, (775) 831-8603 or [wasnotenot@ivgid.org](mailto:wastenot@ivgid.org).