

Lake Related Health and Safety Issues

Periodically, the news media report on cases of primary amoebic meningoencephalitis (PAM), bacteriological infections, toxic algae and attacks by wildlife. While these reports are often sensationalized, they remind us that there are always risks associated with recreational use of natural water bodies. Infections and illnesses caused by swimming in area lakes are not frequent, but there is a potential for them to occur. The following information will provide you with the facts about these potential health threats so you can minimize your risks, and continue to enjoy the area's incredible water resources.



Health and safety warnings are posted at beaches as conditions warrant.

Amoebas: The amoeba that causes PAM is a naturally occurring organism in most freshwaters worldwide. It is a microscopic protozoan that lives in the sediment/water interface and feeds mostly on detritus (decayed organic material). When water temperatures are below 80 degrees (F), the organism exists in a cyst form that does not pose any risk to swimmers. As the water warms above that mark, the amoeba changes into a free swimming form that is capable of causing the infection. Even in warm waters, infection is rare, but there are ways to further safeguard your health while using the local waterways. Swim in deeper clear water when possible, wear ear and nose plugs and do not allow children to dive or play roughly in warm, shallow water areas. Although weather patterns can cause variations in water temperatures, our lakes are typically above 80 degrees from early June until early October. The City posts the beaches at Dinky Dock and Fleet Peoples Park with informational signs whenever water temperatures exceed 80 degrees.

Algae: Toxic algae refers to a group of single celled organisms known as cyanobacteria (formerly called blue-green algae). As reported in the news some of these organisms are capable of producing a wide range of toxins ranging from liver and neurological toxins to agents that cause eye, skin or sinus irritations. Cyanobacteria levels in a lake are often tied to nutrient concentrations. These are the same organisms responsible for green looking water in most cases. While there currently are no standards for cyanobacteria levels in place in the U.S., Winter Park's lakes usually have levels below what is considered potentially harmful. Swimmers should avoid water that looks excessively murky or that has a visible scum on the surface.

Bacteria and Other Microscopic Pests: Bacterial infections ranging from ear infections, to gastrointestinal discomfort to skin infections can occur in almost any aquatic environment, even in poorly maintained pools and hot tubs. Ear infections seem to affect some people more than others. If you are prone to these infections ask your doctor to recommend an after swim ear wash and use it each time you get out of the water. Gastrointestinal problems are usually related to ingestion of lake water, and can be caused by bacteria or protozoans such as giardia. Most

people know not to intentionally drink lake water, but accidentally swallowing a mouthful is not an uncommon occurrence. Generally these small amounts do not cause problems, and stomach discomfort might just as likely be from the picnic lunch as from the lake water but if you experience discomfort after swimming, a trip to the doctor may be the prudent thing to do. Skin infections from contact with natural waters are fairly uncommon, but can be severe in some cases. Do not swim if you have open cuts or scrapes, as these wounds can provide easier access to microscopic bacteria. Rinsing, or showering with potable water after a trip to the lake can also help to reduce the potential for infection.

Alligators and Other Wildlife: Wild animals can be very beautiful and intriguing, and the desire to interact with them is often strong, and can be enhanced if the animals appear to be interested in, or unafraid of people. Intentionally interacting with wildlife, however, can be dangerous to humans and to the animals and in many cases, is against State law. Never feed wild animals of any kind. Feeding encourages them to lose their fear of humans which often leads to bites, scratches or other potentially dangerous injuries to people. Animals that become dependent on easy handouts can end up with serious health problems because the human food that replaces their natural diet rarely contains the specific nutritional content they need to remain healthy. Animals that become a nuisance or threat to humans usually end up being destroyed, so if you love animals and wildlife, it best to observe from a distance.

In lakes, alligators are of particular concern to many residents. To avoid confrontations always be aware of your surroundings when on or near waterways, and avoid densely overgrown areas. If you come across an alligator in the wild, you should calmly move away from the area. Feeding alligators any time of the year is illegal and dangerous. Feeding causes the animals to lose their natural fear of humans, and increases the frequency and severity of aggressive behavior.

During the months of spring, residents should be aware that alligators will become more active in area lakes as they begin mating and nesting. Alligators typically breed from April through June, and can become more aggressive during this period than they are the rest of the year. Males become increasingly territorial as the breeding season approaches, and often travel from lake to lake in search of mates. A large alligator can cover as much as twenty miles over land in a night, showing up unexpectedly in lakes that did not previously have any alligators. Most alligator aggression is channeled into threat displays intended to scare away potential rivals rather than into physical attacks. Male threat displays include raising their tail out of the water and/or bellowing (a low frequency growl that often causes the water around them to vibrate vigorously). Female alligators that are guarding nests or young often will open their mouths to warn off anyone who gets too close, and may even run out of the water with their mouths open to scare off intruders. Alligators that are cornered, or feel physically threatened, may hiss loudly. This hissing often precedes a defensive attack.

Alligators that threaten humans or pets, or do not exhibit fear of people (do not leave an area when people approach, or actually come closer) should be reported to the Florida Fish and Wildlife Conservation Commission. The nuisance alligator hotline number is 866-392-4286. Please be aware that alligators removed under this program are typically destroyed, and that larger animals may be killed on site for safety reasons.