

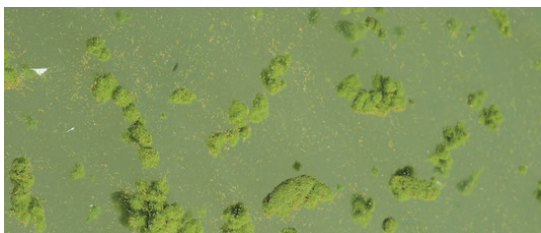
## How do you know if the lake has a blue-green algal bloom?

Because there are many different types of blue-green algae found in Alberta, bloom appearance can vary widely. A few characteristics to watch for include:

- The water is discolored a drab olive, bright green, turquoise, yellow-brown, red or purple, and cloudy. The bottom is not visible close to shore.



- Particles are easily seen throughout the water column. They may resemble tiny specks, grass clipping-like filaments, hairs, globs or spheres.



- Particles are present in a thick layer at the surface or along the shoreline. The accumulated material may be pale green, brown, greenish-blue or blue in color; looking like a paint spill or pea soup.



Alberta Health Services issues health advisories for lakes where blue-green algal blooms have been identified. Check their website and keep an eye out for signs posted around the lake. Report possible blooms to the Environmental Public Health Office at 1-833-476-4743.

# Respect Our Lakes

## Cyanobacteria (Blue-Green Algae)



### For more information:

Search 'Respect our Lakes' on Alberta.ca  
Contact us at [rol@gov.ab.ca](mailto:rol@gov.ab.ca)  
Call 310-3773

### Alberta Health Services Cyanobacteria (Blue-Green Algae) bloom advisories:

[www.albertahealthservices.ca/news/bga.aspx](http://www.albertahealthservices.ca/news/bga.aspx)

### Environmental Public Health Office

1-833-476-4743 (toll free)

For more information on the risk to human health,  
contact Alberta Health Services:  
Health Link Alberta: 811

Alberta

Alberta



## Lakes and blue-green algae

As a lake user, you are the first to notice when the lake water quality changes and you could be the most affected if those changes mean a blue-green algal bloom is present in the lake. Learning more about blue-green algae is key to making safe decisions for you, your family and your pets when enjoying time at the lake.

## What is a blue-green algal bloom?

The scientific term for blue-green algae is cyanobacteria. They are a naturally occurring bacteria, similar to algae in appearance and habitat. That's why they have long been known as blue-green algae. Alberta has more than 100 species of blue-green algae, ranging from tiny cells invisible to the naked eye to large species that look like fine grass clippings, small shapeless clumps, or spheres several millimeters in diameter.

Blue-green algae are found naturally in most lakes in Alberta but when found in large amounts, they may give off offensive odours, cause unsightly scums and may contribute to fish kills. These dense populations are called blooms and can intensify in bays or along shorelines and beaches due to wind and waves. Blooms may be caused and influenced by factors such as temperature, sunlight, and nutrients. Phosphorus is one of the key nutrients contributing to algal and blue-green algal blooms. Nutrients come naturally from sediment and soil, and from human activities like applying fertilizer in the lake watershed.



### Your lake has a cyanobacterial (blue-green algal) bloom. What should you do?

Many species of cyanobacteria (blue-green algae) produce potent toxins, the most common being microcystin, a liver toxin. Nerve toxins can also be found, but not as often. Levels and presence of toxins in the water is temporary and changes over time. Not all species of cyanobacteria (blue-green algae) produce toxins, but some species can produce several types.

Some common cyanobacterial (blue-green algal) species can cause skin irritation, itchiness and severe rashes. Accidental swallowing can cause fever, headache, dizziness, stomach cramps, vomiting, diarrhea and sore throat.

That isn't how a fun day at the lake should end, so be safe! It's impossible to tell by sight or smell whether the cyanobacteria (blue-green algae) is toxic, so the best course of action is to avoid the bloom altogether.

#### You and your family

- Avoid all contact with cyanobacterial (blue-green algal) blooms. If contact occurs, wash with tap water as soon as possible.
- Never drink or cook with untreated water directly from a lake with a cyanobacteria (blue-green algae) health advisory (or any lake). Boiling lake water will not remove the liver toxin produced by cyanobacteria (blue-green algae).
- Do not swim or wade in any areas where cyanobacteria (blue-green algae) is visible. Areas of the lake that do not have visible blooms can be used for swimming and boating, even when a cyanobacteria (blue-green algae) health advisory is in place.

- Fish may store toxins in their livers. If you are fishing on this lake, consider limiting human consumption of whole fish and fish trimmings.
- Call Health Link at 811 if you have been in contact with contaminated water and have any of the symptoms listed.

#### Your dogs and other domestic animals

- Keep them away from a lake with cyanobacterial (blue-green algal) blooms. That means no swimming or wading in the water. Sorry, Fido!
- Before heading to the lake, talk to your vet about how to respond if your dog does get into a blue-green algal bloom or ingests the water.
- Provide alternative sources of drinking water.
- Do not feed them whole fish or fish trimmings from this lake.

### What can we do about cyanobacterial (blue-green algal) blooms?

There are no measures that we can take to immediately rid a lake of cyanobacterial (blue-green algal) blooms. Chemical use for short term control of cyanobacteria (blue-green algae) is not allowed in Alberta because many of the chemicals are toxic to fish and the organisms they eat.

Long-term solutions involve using a watershed management approach to reduce the sewage, fertilizers, industrial effluents, urban stormwater and agricultural runoff that enter the lake water and feed the blooms.