Cyanobacteria (Blue-Green Algae)
Frequently Asked Questions

What are cyanobacteria?

Cyanobacteria, also known as blue-green algae or pond scum, have cells that can produce toxins that are a health concern to humans and animals.

They are not really algae, but bacteria.

Cyanobacteria have been around for thousands of years. They are a worldwide problem and are found in nearly every environment.

Normally, they are barely visible but when conditions become favourable, they may form visible blooms. In our area, cyanobacterial blooms generally show up in August and may persist through the winter.

What are the health risks and symptoms?

You can be exposed to the toxins if you drink the water, your skin contacts the water, you inhale water droplets or if you eat contaminated food.

If you swallow the water, you may vomit, get diarrhea, or have abdominal pain, cramps and nausea. How sick you are depends on the amount of water you drank and the concentration of the toxins. Although rare, severe cases could include seizures, liver failure, and respiratory arrest – even death.

If you come in contact with the toxins, your skin may be irritated. It may appear as an itch, redness or skin rash. In more severe cases, you can get mouth ulcers, ulcers inside the nose, eye and ear irritation, and blistering of the lips.

Are some people at greater risk?

Yes. Children, toddlers, someone with liver disease, kidney damage or weakened immune systems are at higher risk.

Can my pets drink contaminated water?

No. Pets and livestock have died from drinking water containing toxic cyanobacteria.

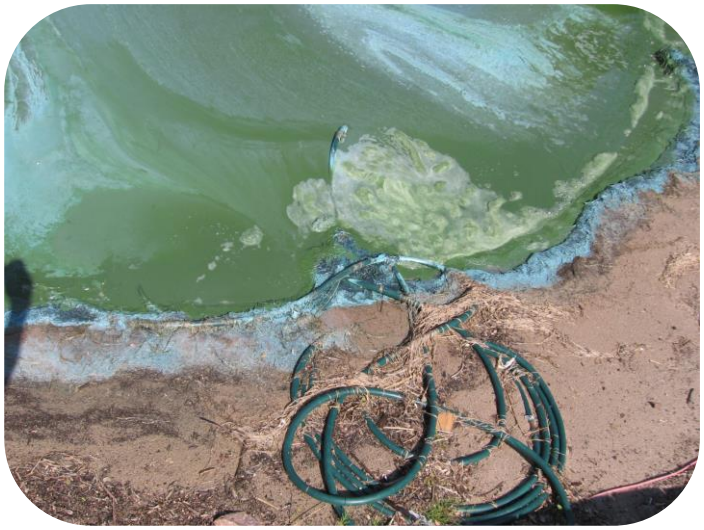
I do not see any cyanobacteria in the water. Is the water safe?

We do not know. Blooms continually change and are difficult to predict. Temperature or sunlight changes could make the bloom less buoyant and sink into deeper water where you may not be able to see it as well. The wind may change directions and temporarily blow the bloom to a different part of the water body.

Even when a bloom has disappeared, toxins can persist in water bodies for a long time. This is why a sample result received from the water at one specific time of the day, may not represent the water quality hours later. Therefore, we have to assume a worst-case scenario.

.../2

I get my drinking water from the lake and I have my own water treatment device. Is the water safe to drink during a cyanobacterial bloom?



No. The manufacturers of many small-scale treatment devices available to you as a homeowner have not been tested to ensure cyanobacteria and their toxins are removed effectively.

We cannot recommend a specific treatment device because of the variability in designs of treatment systems, the flexible nature of cyanobacteria blooms, the difficulties to maintain the system, and the lack of adequate inexpensive testing to ensure a treatment system is operating properly.

A deep drinking water intake does not eliminate the risk. When cyanobacteria die, they sink to the bottom, potentially releasing toxins where drinking water system intakes are located.

Boiling the water does not remove the toxins. In fact, boiling the water may make the situation worse by releasing the toxins from the cells.

Unfortunately, a solution to this problem does not exist. The only recommendation we can give at this time is to use an alternate source of water. If you continue to draw your drinking water from a lake known to contain cyanobacteria, you do so at your own risk.

This is a long-term issue that will probably not go away. Please consult with a local well driller to see if a drilled well may be a solution in your area.

Can I do laundry with the water during a cyanobacterial bloom?

Cleaning agents, such as chlorine and other oxidizers, may break open cell walls of the cyanobacteria and release more toxins. Handling wet clothes after the wash cycle may expose you to the toxin.

What about recreational activities and bathing?

Blooms are usually so smelly and awful to look at, you will avoid going in the water.

Any contact with the bloom may cause skin irritation. Toxins can also be absorbed if you drink the water or inhale when droplets of water become airborne.

Can I eat fish from water with a cyanobacterial bloom? Some toxins produced by cyanobacteria accumulate in the tissues of fish and shellfish, particularly in the guts including the liver, kidney, etc. We do not know if the toxins accumulated in fish would be a concern. It depends on how much you eat and how severe the cyanobacteria bloom. Be careful if you eat fish caught in water where cyanobacteria blooms occur. Do not eat the liver, kidneys and other organs of fish caught. Do not cut the organs when filleting.

…/3

Can I water my vegetable garden during a cyanobacterial bloom?

Do not use water from a cyanobacterial bloom to water your vegetable garden. Studies have shown watering plants with contaminated water may result in the plant absorbing the toxin.

Who should I call if I see a cyanobacterial bloom?

Call the Ontario Ministry of the Environment and Climate Change's Spills Action Centre at 1-800-268-6060.

What to do and things to avoid

- Be aware of areas with thick clumps of cyanobacteria and avoid direct contact with it.
- Do not wade or swim in water containing visible cyanobacteria.
- Keep animals and children away from the water.
- Do not boat or water ski through cyanobacterial blooms.
- Do not drink the water and avoid any situation that could lead to swallowing the water.
- If you do come in contact with the cyanobacteria, rinse off with fresh water as soon as possible.
- Make sure children are supervised at all times when they are near water. Drowning, not exposure to toxic cyanobacteria remains the biggest water recreation hazard.

Additional Resources

Facts about Cyanobacteria, Centers for Disease Control and Prevention
cdc.gov/hab/cyanobacteria/pdfs/facts.pdf

Cyanobacterial Toxins, Health Canada
hc-sc.gc.ca/ewh-semt/pubs/water-eau/cyanobacterial_toxins/index-eng.php

Blue-Green Algae (Cyanobacteria) and their Toxins, Health Canada
hc-sc.gc.ca/ewh-semt/pubs/water-eau/cyanobacter-eng.php

Toxic cyanobacteria in water: A guide to their public health consequences, monitoring and management, World Health Organization
who.int/water_sanitation_health/resourcesquality/toxicyanbact/en/

Water-related Diseases, World Health Organization
who.int/water_sanitation_health/diseases/cyanobacteria/en/index.html

North Bay: 705-474-1400 Burk's Falls Parry Sound: 705-746-5801
Toll-free: 1-800-563-2808