

Cyanobacteria blooms (blue-green algae)

What are cyanobacteria blooms?

Cyanobacteria blooms are sometimes called blue-green algae. In fact, cyanobacteria can cause blooms in a range of colours, including bright blue, red, brown and green. You can find cyanobacteria in all kinds of bodies of water, but it is more common for them to grow in shallow, slow moving or still water. This includes ponds, wetlands and shorelines of fresh-water lakes, streams and rivers.

When the amount of cyanobacteria in a water body increases, a dense mass called a bloom will form. Cyanobacteria blooms are natural. However, some human activities (such as agriculture or a poorly functioning septic systems) can make blooms more likely.

What do cyanobacteria blooms look like and how long will they last?

Some blooms can cover part or all of a water surface. They may look thick, like soup. Not all blooms are easy to see. Blooms may last days, weeks, months or all year, and can even grow during winter when water may be covered in snow or has turned to ice. It is important to note that toxins released by cyanobacteria can persist in the water long after a bloom has ended. If you are unsure about the quality of the water, contact your local health authority or local government.



Are cyanobacteria harmful?

Cyanobacteria can produce several types of toxins that can be poisonous to people, pets or livestock.

How can I be exposed to cyanobacteria?

You can be exposed to cyanobacteria through:

- Swallowing contaminated water
- Bloom water contacting your skin
- Breathing in water droplets that contain toxins

This can happen when you are enjoying recreational activities such as wading, swimming, boating, water-skiing, tubing, kayaking and paddleboarding.

You can also be exposed by consuming fish and shellfish harvested from an affected water body. During a cyanobacteria bloom, water will look bad and may also smell bad. This discourages many individuals from drinking or playing in this water. However, some individuals (such as young children) may be less careful, or may be unaware of the dangers.

Take special care to ensure that infants and babies are not exposed to water that is contaminated with cyanobacteria. The risk is particularly high for those who drink formula made with contaminated water. Boiling water will not remove cyanobacteria toxins from the water.

What are the symptoms of exposure to cyanobacteria?

Cyanobacteria can produce several types of toxins. Some can affect the nervous and respiratory systems and symptoms appear shortly after exposure. Others affect the liver, and it takes days before symptoms appear.

Symptoms from consuming cyanobacterial toxins through drinking water or eating shellfish may include headaches, nausea, fever, sore throat, dizziness, stomach cramps, diarrhea, abdominal pain, vomiting, paralysis, numbness, salivation, drowsiness, speech disturbances, muscle aches, mouth ulcers and blistering of the lips.

Symptoms from skin or eye contact with cyanobacterial toxins include rash, itching or blisters, and conjunctivitis (pink eye). It is important that you rinse your body with clean water immediately after exposure to contaminated water. Rinsing is recommended even without symptoms.

When cyanobacteria die off, the gases they produce such as hydrogen sulfide and methane may cause respiratory irritation and breathing problems. If you're showing any of the symptoms listed above and

believe they may be from exposure to cyanobacteria, visit your health care provider.

How are pets and livestock exposed to cyanobacteria?

Cyanobacteria toxins can harm pets and livestock if they come into contact with contaminated water. They may be exposed either by drinking, wading, playing in, or by licking their fur before being rinsed.

Never let pets or livestock drink or go into the water if there are visible blooms. Always ensure you provide a safe source of drinking water.

How can I prevent illness from cyanobacteria?

To prevent illness from cyanobacteria:

- Follow advice from your local government, health authority and ministries on what water is safe to drink and where it is safe to swim
- Never drink untreated water from lakes, ponds or wetlands. Boiling water does not remove cyanobacterial toxins from the water and can even increase the concentration of toxins
- Never mix infant formula with water that you suspect contains cyanobacteria
- Follow swimming advisories related to cyanobacteria blooms or toxins
- Never wade, swim or bathe in water with visible blooms
- Never cook, wash dishes or do laundry in water contaminated with blooms
- Never expose plants that are grown for food to water contaminated with blooms
- Never consume fish or shellfish harvested from water contaminated with blooms
- Wear rubber gloves when washing a pet exposed to cyanobacteria. Use fresh water to wash hands well after cleaning your pet

Exposure to cyanobacteria is not the only risk associated with drinking untreated water. For more information on safe drinking water, visit [HealthLinkBC File #49b Disinfecting drinking water](#).

Who should I contact regarding health concerns related to algae blooms?

If you have health concerns related to drinking water or recreational water use, contact your local health authority: www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/health-authority-contacts.

For more information

- Algae Watch is an educational program to help people recognize and identify algae blooms in B.C. lakes. Anyone can access the program at www.gov.bc.ca/algaewatch and submit photos and information to the Algae Watch team
- For more information about cyanobacteria in drinking water, review Health Canada's Guidelines for Canadian drinking water quality: www.canada.ca/content/dam/canada/health-canada/migration/healthy-canadians/publications/healthy-living-vie-saine/water-cyanobacteria-cyanobacterie-eau/alt/water-cyanobacteria-cyanobacterie-eau-eng.pdf (PDF, 1.38 MB)
- For more information about cyanobacteria and recreational water quality, visit Health Canada's Guidelines for Canadian recreational water quality: www.canada.ca/content/dam/hc-sc/documents/services/publications/healthy-living/guidelines-canadian-recreational-water-quality-summary-document/guidelines-canadian-recreational-water-quality-summary-document.pdf (PDF, 766 KB)
- For more information on how cyanobacteria affect pets or livestock, visit Watershed Stewardship: A Guide for Agriculture: <https://a100.gov.bc.ca/pub/eirs/finishDownloadDocument.do?subdocumentId=4182> (PDF, 2.5 MB)

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