

Blue-green Algae (Cyanobacteria) Blooms

What are blue-green algae?

Blue-green algae, (also known as Cyanobacteria), are bacteria that grow in shallow, slow moving or still water. This includes fresh water lakes, ponds or wetlands. Blue-green algae can range in colour from olive-green to red.

What are blue-green algae blooms?

When the amount of blue-green algae increase a lot, a large, dense mass will form. This mass is called a bloom. Blooms cover the surface of the water and can look like thick pea soup, often blue-green in colour.



However, not all blooms are easy to see. Toxins can still be in the water even if you cannot see the blooms.

Blue-green algae blooms occur naturally. Yet, water bodies enriched with nutrients from human activities such as municipal, industrial or agricultural sources are much more likely to have blooms.

Are these blooms poisonous?

Some blue-green algae blooms can produce chemicals that are poisonous if swallowed by people, pets, or livestock. Other blooms can have no noticeable effect on pets or livestock.

There are several types of toxins or poisons that can be produced by blue-green algae. Here are 2 examples:

- **Neurotoxins:** Affect the nervous and respiratory systems and can cause muscle

tremors, stupor, staggering, rapid paralysis, breathing problems and, in extreme cases, death (mostly observed in livestock). Pets and livestock that die from this are usually found close to the body of water where they drank from.

- **Hepatotoxins:** Affect the liver and can take days before symptoms appear after drinking affected water. Pets or livestock that get sick after drinking enough of this toxin may show jaundice (yellowing of the white of the eye, and sensitivity to sunlight).

How could I be exposed to blue-green algae?

You can be exposed to blue-green algae by drinking water that has blue-green algae in it, or by doing recreational activities such as swimming, boating or waterskiing in water with blue-green algae.

During a severe blue-green algae bloom, water looks bad, and may also smell bad. Adults or older children will likely not drink this water. However, younger children may be less careful, or unaware of the dangers of drinking water with blue-green algae blooms. Bottle-fed infants are also at risk if water that has blue-green algae in it is used for mixing with infant formula.

What are the symptoms of exposure to blue-green algae?

Symptoms from drinking water that contain blue-green algae can include: headaches, nausea, fever, sore throat, dizziness, stomach cramps, diarrhea, abdominal pain, vomiting, muscle aches, mouth ulcers, and blistering of the lips. Symptoms from swimming and other recreational water activities in contaminated

water can include skin rashes and irritated ears and eyes.

If you have been exposed to blue-green algae toxins and have any of these symptoms, rinse off your body and see your health care provider right away.

How are pets and livestock exposed to blue-green algae?

Pets and livestock with no other source of drinking water may be poisoned by drinking contaminated water with blue-green algae. To reduce risk to livestock, do not allow rainwater or other surface runoff to flow through livestock areas.

How long does a bloom last?

Blooms may last days, weeks, months, or possibly all year. Toxins may remain in water for some time after the bloom has gone away. If you are unsure about the quality of the water, contact your local Ministry of Environment regional office.

How can I prevent illness from blue-green algae?

To prevent illness from blue-green algae make sure to:

- Follow the advisories of your local Government, local Health Authority, and Ministries.
- Never drink untreated water from lakes, ponds or wetlands. Boiling water does not remove blue-green algae from the water. If you are mixing infant formula, make sure to find an alternate safe source of drinking water (such as bottled water).
- Never wade, swim or bathe in water with visible blooms.
- Never cook, wash dishes, or do laundry in water heavily contaminated with blue-green algae.

- Never let pets or livestock into the water if there are blue-green algae, and provide them with other sources of drinking water.

In addition to possible health risks from blue-green algae, you may get sick from other illnesses spread by drinking untreated water. For more information on safe drinking water, see [HealthLinkBC File #49b Disinfecting Drinking Water](#).

Who should I contact to report blue-green algae blooms?

If you have concerns about a blue-green algae bloom in a water body that is a source of drinking water or is used for recreation, contact the nearest public health unit or Ministry of Environment Regional office
www.env.gov.bc.ca/main/regions.html.

For More Information

For more information about blue-green algae and water quality, see Health Canada's Guidelines for Canadian Recreational Water Quality www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/water-eau/guide_water-2012-guide_eau/guide_water-2012-guide_eau-eng.pdf (PDF 1 MB).

For more information on the effects of blue-green algae on pets or livestock, see:

- BC Ministry of Environment, Blue-Green Algal Blooms in Lakes www.env.gov.bc.ca/wat/wq/brochures/bluegr_e.html
- Watershed Stewardship: A Guide for Agriculture www.dfo-mpo.gc.ca/Library/216753.pdf (PDF 2.51 MB).