

Blue-Green Algae Questions and Answers



Helping to prevent illness from blue-green algae

- Do **not** drink untreated water from water bodies, whether you can see a bloom on the surface or not.
- Do not wade, swim or bathe in water with visible blooms.
- Do not cook, wash dishes, or do laundry using water with blue-green algae in it. Boiling water does **not** remove toxins from the water.
- Do not let livestock or pets enter into or drink the water if blue-green algal blooms are present.
- Do not eat fish caught in water where algae blooms exist.
- If you come into contact with blue-green algae blooms, contact a physician.

During the warm summer months, many Saskatchewan lakes may suddenly take on a green soupy appearance. The water surface becomes blue-green, bright blue, grey or tan in colour. The organisms responsible for these changes are microscopic plants called algae.

What are blue-green algae?

Blue-green algae are aquatic vegetation that are usually bluish-green in colour. Algae share features typical of both algae and bacteria and are often referred to as *cyanobacteria*.

What causes blue-green algae to grow?

Blue-green algae occur in shallow, warm, slow-moving or still water and need sunlight, water and nutrients (mainly nitrogen and phosphorus) to grow. Nutrients can come from the runoff from farm fields and fertilized lawns, wastewater discharges and the atmosphere. The more fertile the waterbody, the more likely it is to experience blue-green blooms.

What are algae “blooms”?

When algae grow so thick and make water look like “pea soup”, the condition is called an algae bloom. They are common in Southern Saskatchewan lakes from mid-June to mid-September and usually last for two to three weeks.

Does the presence of a blue-green algae bloom always mean the water is contaminated?

No, not all algae blooms are harmful. However, some blooms will produce toxin in certain conditions, which can be poisonous and potentially dangerous to the health of people and livestock. Some toxins are known to attack the liver or the nervous and respiratory systems; others simply irritate the skin. Samples must be analyzed in a laboratory to determine if a particular bloom is toxic.

What are algal toxins and their effect?

Blue-green toxins are naturally produced poisons stored in the cells of certain species of blue-green algae. They should be treated with caution as some are more toxic than others. One of the first signs of toxic blue-green algae in a body of water is the presence of stressed, sick or dead wildlife, waterfowl or livestock along the shoreline.

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What happens if I come into contact with blue-green algae?

If you swallow contaminated water, you may experience headaches, fever, sore throat, dizziness, stomach cramps, nausea, diarrhea and vomiting. These symptoms may last for several days. If you swim in contaminated water, you may get itchy and irritated eyes and skin, as well as other hay fever-like allergic reactions. If you suspect you might have come into contact with algal toxins and are experiencing any of these symptoms, rinse any scum from your body and consult your physician immediately. Extended exposure to low levels of toxins could have long-term or chronic effects in humans.

Are children more vulnerable than adults?

Younger children may be more prone to accidentally drinking algal contaminated water.

Should I let my pets or my livestock drink water containing blue-green algae blooms?

No. If possible, keep livestock or other domestic animals away from water that is contaminated with toxic strains of blue-green algae.

Can I cook using water with blue-green algae in it?

Water contaminated with blue-green algae should not be used for food preparation unless properly treated. Boiling water does not remove toxins from the water. As it is impossible to detect the presence of toxins in the water by taste, odour or appearance, you must assume that they are present until testing is completed.

Can I use water contaminated with algal toxins for washing and bathing?

If there is not a safe source of water available for washing dishes and clothes, use rubber gloves to avoid direct contact with the water. Bathing or showering in water contaminated with algae or algal toxins should be avoided, as skin contact with the algae can lead to skin irritation and rashes.

Can I eat fish from water contaminated with algal toxins?

Toxins can accumulate in the tissues of fish and shellfish. Caution should be taken when considering the consumption of fish caught in areas of a water body where major blue-green algal blooms occur; the internal organs of the fish should not be eaten.

Can water containing blue-green algae blooms be used for recreational activities?

There are very few treatment options available once algae accumulate in water used for recreational activities, such as swimming, boating, wind surfing and fishing. Swimming and other water-related activities should be avoided in areas with dense blooms.

Are blue-green algae and associated toxins found in municipal drinking water supplies?

Most municipalities with a history of blooms monitor their surface water supplies for these algae. When blue-green algae are detected in the water supply, treatment plants remove them through filtration and oxidation processes.

For more information, contact:

Your local Ministry of Environment office or call 1-800-567-4224 or email centre.inquiry@gov.sk.ca, or Ministry of Agriculture at http://www.agriculture.gov.sk.ca/Blue-Green_Algae_FAQs.