

WHAT TO DO IF CYANOBACTERIA IS VISIBLE IN A LAKE OR A POND?

If cyanobacteria are visible in water or if the water seems abnormally cloudy, by safety precaution the following recommendations should apply:

- avoid all direct contact with the water, e.g., swimming and aquatic activities (note that a wet suit will not protect the skin);
- do not drink this water and do not use it to prepare or to cook food (boiling the water will not eliminate the toxins). If drinking water is provided by a municipal distribution system, it can be consumed unless you hear to the contrary from municipal authority;
- avoid consuming fish or other aquatic species taken from the affected area;
- do not let animals drink water or bathe in it;
- do not use any algicides to destroy cyanobacteria (toxins are released more massively when cells die);
- avoid using this water to fill a pool or for an outdoor shower;
- wait at least one to two weeks after cyanobacteria has disappeared before getting back to swimming and aquatic activities or contact your local authorities.

If cyanobacteria reappear frequently in the same area, it is preferable to follow these recommendations for the whole duration of the hot season.

Some toxins can persist after cyanobacteria has disappeared, if certain individuals develop one or more symptoms caused by cyanobacteria following contact with water that seems normal and clear, the same recommendations should apply by safety precaution.

Are there any solutions?

The best solution is to reduce sources of phosphorous and nitrogen in water, either by reducing fertilizer usage (for grass and agriculture) and by eliminating wastewater discharge (residential, agricultural and municipal). Actually, there are no recognized methods which can eliminate cyanobacteria in a stretch of water.

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ALGAL BLOOMS



Photo : MENV

BLUE-GREEN
Cyanobacteria

WHAT ARE BLUE-GREEN ALGAE?

Blue-green algae which can be found on the borders of lakes and ponds are not actually true algae, but are a type of microscopic organisms called cyanobacteria. Their pigmentation generally give them a blue-green colour. Blue-green algae grow in summer in calm, warm, shallow water which is rich in nutrients (e.g., nitrogen and phosphorous). Some species can produce toxins, the type and quantity of toxins will vary according to conditions in place.

Cyanobacteria are not always visible on the surface of water. Generally, they become visible when they are present in large numbers in one particular area. In the latter case, a blue-green coloration can be observed in the water and/or at the surface of the water (colour may vary from green olive to red). Eventually, foam can be formed on the surface of the water (see photos in pamphlet). The wind, the waves and the current have a tendency to disperse them, but they might still reappear. Undesirable odours (e.g., garbage) can be perceived in their presence, and they can also smell like freshly cut grass.

This problem exists nearly all around the world and affects many lakes in the Monteregie area as well as other regions in Quebec.

WHAT ARE THE HEALTH EFFECTS?

Cyanobacteria and the toxins they produce may cause health effects. Young children are more at risk to develop serious health problems if they ingest water or foam containing toxins. Furthermore, high concentration of algae and toxins are often found on the waterside, where children like to play. However, no human cases of disease caused by blue-green algae have been reported in Quebec so far. Nevertheless, it is possible that health problems have occurred in the past but were undetected or were confounded with other causes. Many animal deaths, especially dogs occurred following blue-green algae exposition.



Photo : MENV

WHAT TO DO IF I DEVELOP ONE OR MORE OF THESE SYMPTOMS?

If you develop symptoms (see the list) following contact with the water containing cyanobacteria, immediately stop any further exposure with the water. Rinse your skin with clean water. If this occurs at a public beach, inform the person in charge of the beach.

If symptoms persist after a few days or your health status worries you, contact the Info-Santé service at the CLSC of your region or consult your doctor. Notes that these symptoms can be caused by other factors than cyanobacteria (e.g., faecal matter in the water, swimmer's itch).

BY INGESTION

- ◆ Stomach ache
- ◆ Diarrhoea
- ◆ Vomiting
- ◆ Nausea

SYMPTOMS

BY DIRECT CONTACT

- ◆ Skin irritation
- ◆ Nose irritation
- ◆ Throat irritation
- ◆ Eye irritation

MORE RARELY

- ◆ Dizziness
- ◆ Headache
- ◆ Fever
- ◆ Liver damage
- ◆ Nervous system damage