

Blue-Green Algae

What are blue-green algae?

Blue-green algae are primitive microscopic plants that thrive in fresh water. They are most likely to be found in shallow water that is slow moving and warm and rich in nutrients such as phosphorus and nitrogen. They may also be present below the surface in deeper areas of cooler water, where additional plant and other nutrients are available. (Their scientific name is **cyanobacteria**, but they are more commonly known as blue-green algae). Algae blooms occur most often in late summer or early fall.

How can I recognize blue-green algae?

They are usually bluish-green in colour, but can range from olive green to red. Heavy blue-green algae blooms often make the water look like pea soup or may form small clumps or strands in the water. They smell like newly-mown grass when they are fresh, and smell like rotting garbage when they get older.

Should I be concerned about blue-green algae?

Yes. You must take precautions to avoid contact with water that contains blue-green algae. Some forms of blue-green algae produce toxins, which can be harmful to your health, and the health of your animals. There's no way to tell by looking at a bloom whether it contains toxins or not. As a precaution, regard any blue-green algal bloom as potentially toxic. The most common toxins are called microcystins.

What are the health effects?

Microcystins can cause poisoning in animals and humans who come into contact with toxic blooms. Microcystins are very stable in water because of their chemical structure. They can survive in both warm and cold water and can tolerate radical changes in water chemistry. Human health effects from contact with these toxins can include:

- Itchy, irritated eyes and skin
- If toxins are ingested, flu-like symptoms can occur
- Some toxins will attack the liver or the nervous system

Some useful hints to prevent exposure to blue-green algae:

- Avoid any activities that involve direct contact with water, such as swimming and water skiing
- Do not eat any fish caught in the contaminated water
- Do not allow children, pets or livestock to drink or swim in the water
- Do not bathe or shower in the water
- Do not drink the water
- Do not boil the water for drinking. Boiling contaminated water will not make it safe to drink

How can I tell if blue-green algae toxins are in my water?

Not all species of blue-green algae produce toxins. As a precaution it is best to assume any blue-green algae bloom is producing toxins until proven otherwise through laboratory testing.

Can I use my water if I know there is a bloom nearby?

If you have a shore well or shallow well, or if you get your water supply from your own surface water intake in the area of a bloom, you should consider an alternative source of water for the duration of the bloom. Keep in mind that home treatment systems may not remove toxins and can get easily overwhelmed or clogged, so they should not be relied on. Do not boil the water, or manually treat the water with chlorine or other disinfectants, as this could increase the toxin levels.

Where can I get more information?

Contact your family physician if you are concerned about being exposed to blue-green algae, or have questions about health effects. Contact your veterinarian if you are concerned about exposure to your pets.