

Frequently Asked Questions

Blue-Green Algae (Cyanobacteria)

1. What are blue-green algae (cyanobacteria)?

Blue-green algae (cyanobacteria), are microscopic organisms found naturally in all types of water. These single-celled organisms live in fresh, brackish and marine water. These organisms use sunlight to make their own food. In warm, nutrient-rich environments, blue-green algae (cyanobacteria) can multiply quickly, creating blooms that spread across the water's surface.

2. How are blue-green algae (cyanobacteria) blooms formed?

Blue-green algae (cyanobacteria) blooms form when blue-green algae (cyanobacteria), which are normally found in water, start to multiply very quickly. Blooms can form in warm, slow-moving waters that are rich in nutrients. Blue-green algae (cyanobacteria) blooms need nutrients to survive. The blooms can form at any time, but most often form in late summer or early fall.

3. What does a blue-green algae (cyanobacteria) bloom look like?

You might or might not be able to see blue-green algae (cyanobacteria) blooms. They sometimes stay below the water's surface; they sometimes float to the surface. Some blue-green algae (cyanobacteria) blooms can look like foam, scum, or mats, particularly when the wind blows them toward a shoreline. The blooms can be blue, bright green, brown, or red. Blooms sometimes look like paint floating on the water's surface. As blue-green algae (cyanobacteria) in a bloom die, the water may smell bad, similar to rotting plants.

4. What causes some blooms to be toxic?

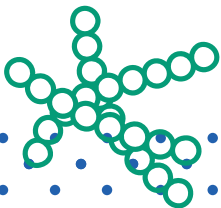
There are thousands of different species of blue-green algae (cyanobacteria), and many more are still being discovered. Most do not produce toxins that are harmful to people or animals. However, some types of blue-green algae (cyanobacteria) produce toxins within their cells, which are released when the cells die off or are ruptured. It is not clear why blue-green algae (cyanobacteria) make these toxins. You cannot tell by looking at a bloom if it is toxic. Blue-green algae can also produce taste and odour compounds, which are not a health concern but can lead to an unpleasant taste in the water.

5. What can Halifax Water do to avoid blue-green algae (cyanobacteria) blooms?

Blue-green algae (cyanobacteria) blooms appear naturally and often when the weather is very hot and dry, as the weather has recently been. Various other lakes in the Dartmouth area have or are currently experiencing algal blooms. Many other water utilities in Nova Scotia, across Canada, and around the world have also had this issue; it is a naturally occurring problem. There is very little that can be done to prevent blue-green algae (cyanobacteria) blooms in lakes.

6. How can Halifax Water protect the public if the blue-green algae (cyanobacteria) bloom gets worse?

Halifax Water has a comprehensive blue-green algae (cyanobacteria) monitoring program for our water supplies and is working with Nova Scotia Environment and Public Health to ensure our plan continues to be protective of public health. The health and safety of our customers remains our top priority and any change in water quality will be communicated to customers.



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FAQ: Blue-Green Algae (Cyanobacteria)

7. What is the maximum acceptable concentration of microcystin, a toxin produced by some types of blue-green algae (cyanobacteria), in drinking water?

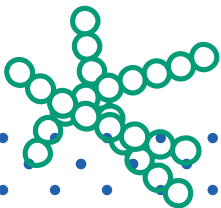
For general consumption, the maximum acceptable concentration of microcystin for is 1.5 µg/L, Halifax Water will alert the public if this concentration is detected. Boiling tap water will not remove the toxin; it will not make the water safe; it will make the water worse.

For infant consumption, the maximum acceptable concentration of microcystin is 0.4 µg/L; Halifax Water will alert the public if this concentration is detected. Boiling tap water will not remove the toxin; it will not make the water safe; it will make the water worse.

The limit is lower for infants because they ingest up to 5 times more water per kg of body weight than an adult.

8. Will boiling tap water contaminated with algal toxins make it safe to drink?

No, boiling water contaminated with algal toxins will not make it safe to drink.



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