

Blue/Green Algal Bloom Q & A

1. What is the blue-green algae that is currently affecting some of the embayments and why are we concerned?

The blue-green algae bloom, also known as cyanobacteria that is currently affecting Sodus Bay is the result of a natural occurring process. Due to a variety of factors this year's bloom appears to be greater in its intensity and persistence than blooms from the recent past. Although most species of algae are not harmful we are concerned because the evidence suggests that the characteristics of the current bloom are indicative of a Harmful Algal Bloom (HAB).

2. What should I do to stay safe?

AVOID THE BLOOM! Humans and pets should not swim or boat in the waters where active blooms are observed. Do not use untreated lake water for drinking, bathing, showering or other activities that would bring the water in contact with your skin. These algae may form toxins that can not be boiled or inactivated with chlorine or other common disinfectants. Consuming water containing high levels of blue-green algal toxins has been associated with effects on the liver and on the nervous system in laboratory animals, pets, livestock and people. Livestock and pet deaths have occurred when animals consumed very large amounts of accumulated algal scum from along shorelines. Direct contact or breathing airborne droplets containing high levels of blue-green algal toxins during swimming or showering can cause irritation of the skin, eyes, nose and throat and inflammation in the respiratory tract.

3. I am a Bayside resident with a shore well or a direct intake from the lake. Is my water safe to use?

You should not rely on these sources for safe drinking water regardless of whether or not algae blooms are present. The New York State Department of Health has a longstanding recommendation against using surface water or shore wells for drinking water. Untreated surface water may contain other bacteria, parasites or viruses, as well as algal toxins, that all could cause illness if consumed.

It is very difficult to adequately treat surface water with home water treatment units and to do so reliably day after day as water conditions change. The presence of an algal bloom in the bay only adds to the concern with these water sources. Many home treatment units simply do not remove algal toxins.

If washing dishes in untreated surface water is unavoidable, rinsing with bottled water may reduce possible residues. While we don't know if water containing low levels of blue-green algal toxins could leave residues on dishes, taking this precaution may help reduce possible exposure.

Direct contact or breathing airborne droplets containing high levels of blue-green algal during swimming or showering can cause irritation of the skin eyes, nose and throat and inflammation in the respiratory tract. Household contact, such as bathing or showering with water not visibly affected by a blue-green algae bloom is not expected to cause health effects. However, some individuals could be especially sensitive to even low levels of algal toxins and might experience mild symptoms such as skin, eye or throat irritation or allergic reactions.

More about concerns with using untreated surface water in general can be found online at: http://www.nyhealth.gov/environmental/water/drinking/docs/surface_water_fact_sheet.pdf

4. Is the public drinking water safe?

Unless you have been notified by your supplier, you can rely on the public drinking water for all your needs.

5. Is it safe to go into the water?

It is advised that, when possible, people swim in a regulated beach area, since safety and health concerns are considered when beaches are regulated.

STAY OUT OF THE WATER if algal blooms are observed. The blooms may contain toxins that can cause a range of negative health effects. Droplets can be inhaled when swimming, water skiing or jet skiing, so these activities should also be avoided in waters where blooms are present. Direct contact with harmful algal blooms or breathing airborne droplets containing high levels of blue-green algal toxins during swimming or showering can cause irritation of the skin, eyes, nose and throat and inflammation in the respiratory tract.

Recreational contact, such as wading, swimming, water skiing or jet skiing in water not visibly affected by a blue-green algae bloom is not expected to cause health effects. In general, people should avoid swallowing water while participating in activities such as wading, swimming, water skiing or jet skiing and shower with clean water and wash thoroughly afterward.

6. Can we swim in the Bay? Can we swim in Lake Ontario?

We advise that, when possible, people swim in a regulated beach area, since safety and health concerns are considered when beaches are regulated.

Beach operators should be contacted to determine if a beach is open for use. In general, people should avoid swallowing water while wading, swimming, water skiing or jet skiing and shower with clean water and wash thoroughly afterwards.

The Wayne County Office of Aging and Youth has closed both Lakeside and Bayside Bathing Beaches for the season.

SODUS BAY: **STAY OUT OF THE WATER** if a blue-green algal bloom is observed. People and pets should avoid contact with blue-green algae blooms and scums. Algal blooms may contain toxins that can cause a range of negative health effects. Direct contact or breathing airborne droplets containing high levels of blue-green algal toxins during swimming or showering can cause irritation of the skin, eyes, nose and throat and inflammation in the respiratory tract. See question 5.

LAKE ONTARIO: To date there have been no reports of a blue-green algal bloom on Lake Ontario.

IF a blue-green algal bloom is observed stay out of the water near the bloom. People and pets should avoid contact with blue-green algae blooms and scums. Algal blooms may contain toxins

that can cause a range of negative health effects. Direct contact or breathing airborne droplets containing high levels of blue-green algal toxins during swimming or showering can cause irritation of the skin, eyes, nose and throat and inflammation in the respiratory tract.

7. What should I do if I (or pets) come into contact with the algae?

Wash thoroughly with soap and water using a clean unaffected water source. If this is not possible you should wipe or otherwise try and remove any algal scum from a pet's fur as soon as possible before they try and self groom.

8. What are the symptoms caused by exposure to a Harmful Algal Bloom (HAB).
(Answer taken from the CDC website)

Getting it on the skin may give people a rash, hives, or skin blisters (especially on the lips and under swimsuits).

Inhaling water droplets from irrigation or water-related recreational activities can cause runny eyes and nose, a sore throat, asthma-like symptoms, or allergic reactions.

Swallowing water that has cyanobacterial toxins in it can cause:

- a. Acute, severe gastroenteritis (including diarrhea and vomiting).
- b. Liver toxicity (i.e., increased serum levels of liver enzymes). Symptoms of liver poisoning may take hours or days to show up in people or animals. Symptoms include abdominal pain, diarrhea, and vomiting.
- c. Kidney toxicity.
- d. Neurotoxicity. These symptoms can appear within 15 to 20 minutes after exposure. In dogs, the neurotoxins can cause salivation and other neurologic symptoms, including weakness, staggering, difficulty breathing, convulsions, and death. People may have numb lips, tingling fingers and toes, or they may feel dizzy.

9. What should I do if I have had an exposure and I think I am having symptoms? (For symptoms see number 8).

If your symptoms are severe call 911.

Otherwise, contact your health care provider and advise them that you may have been exposed to a Harmful Algal Bloom.

10. Is fishing allowed?

If there is a visible algal bloom, fishing is not recommended.

11. Can I eat the fish from lake?

Some algae produce toxins that can be released into the water. Some studies have found that the toxins can also be detected in the edible flesh of fish. In some cases throughout the world, relatively high levels of one of these types of toxins (microcystins) have been reported. However, the available information suggests that contamination of fish flesh with microcystins has not been a major problem in the Northeast. So, while the microcystin levels and resulting

health risks from eating these fish may be low, you can reduce possible risks by choosing not to eat fish caught in water where visible algae blooms are present. Moreover, because fishing itself can result in direct contact with water, we recommend that people not fish in areas of waters where algae blooms are visibly present.

As we always advise, don't eat any fish found sick, dead or dying from any waters. People should also follow good sanitary practices when preparing fish for consumption (as described on the DOH website at http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm#sanitary_game). DOH also has in place advisories on eating fish from Lake Ontario due to fish contamination with toxic chemicals. The DOH advisories include advice for women under age 50 and children under 15 to EAT NO fish of any species from Lake Ontario, as well as specific advice for older women and adult males ranging from eat up to one meal per week to EAT NONE, depending on fish species. The complete DOH advisories are available on the DOH website at www.nyhealth.gov/fish.

12. After the bloom goes away, when can we go into the water?

The amount of time that is required for the microcystins to dissipate is affected by weather and wave action. We advise that, when possible, people swim in a regulated beach area, since safety and health concerns are considered when beaches are regulated. Recreational contact, such as wading, swimming, water skiing or jet skiing with water not visibly affected by a blue-green algae bloom is not expected to cause health effects. However, some individuals could be especially sensitive to even low levels of algal toxins and might experience mild symptoms such as skin, eye or throat irritation or allergic reactions.

13. Can I water fruits, vegetables and other crops with water taken from areas where blue-green algae blooms are visibly present?

We recommend avoiding direct contact with water taken from areas where blue-green algae blooms are visibly present. You should consider this advice when deciding whether and how to irrigate with such waters. If you use spray irrigation, you are more likely to have direct skin contact with the water and to inhale water droplets, and the toxins in the water will remain on the produce. Drip irrigation is less likely to lead to these exposures. As always, you should wash fruit and vegetables in clean water before eating to remove potential contamination with infectious organisms, pesticides, heavy metals and toxins.

14. Is the state going to test the water?

NYSDOH's regulatory responsibility is to Public Bathing Beaches and to a lesser extent Public Water Supplies. Although NYSDOH's regulatory obligation is to the public beach, Wayne County Emergency Management is requesting that NYSDOH go beyond this obligation and put a strategic sampling plan in place for Sodus Bay water. This would involve the sampling of several points in the bay to ensure that the level of microcystin has reduced to levels generally found in Lake Ontario.

15. Can I have my water tested for microcystin?

If a local resident desires testing of a water sample for microcystin, Wayne County Emergency Management is aware of one environmental laboratory capable of doing this testing. Note that this is not an endorsement of this lab, nor is it a non-endorsement of any other labs that we are

not aware of. To have a sample tested, a one liter sample is required. Draw it into a one liter bottle (an empty water bottle is fine for this), pack it in ice (in a zip lock or similar bag) and a carton, and send it to:

State University of New York
College of Environmental Science and Forestry
307 Stadium Place
341 Jahn Lab
Syracuse, NY 13210.

The attached price sheet and order form will assist you in processing. It would be necessary to order the:

Basic Handling Charge \$100
Microcystin analysis by PPIA. \$25

- The link to the order form is:
<http://www.esf.edu/merhab/pdf/Request%20for%20Sample%20Analysis.pdf>
- There is also a rush order processing fee available if you would like the service expedited.
- Please email Mike Satchwell at mfsatchw@syr.edu and advise him that you are sending in the sample.
- **They request that you do not send samples on Thursdays or Fridays.**

16. Where can I take a shower?

The Wayne County Sodus Point Bathhouse located at the end of 1st Street in Sodus Point, New York is operating under extended hours from 7:00 a.m. until 9:00 p.m. until the Blue-Green Algae issue has ended.

17. Where can I find updated information?

Refer to the Wayne County official website at <http://www.co.wayne.ny.us>

18. Where can I find more information regarding Harmful Algal Blooms and cyanobacteria?

Additional information can be found at:

<http://www.cdc.gov/hab/cyanobacteria/facts.htm>

<http://www.cdc.gov/hab/pib.htm>

<http://www.nyhealth.gov/environmental/water/drinking/bluegreenalgae.pdf>