

Harmful Blue-green Algae Blooms: Understanding the Risks of Piping Surface Water into Your Home

This fact sheet provides information and advice for people who are not able to connect their homes to a public water supply or to a drilled well for their drinking water and are using a surface water source such as a lake, river, stream or spring for their household water. It is important to understand the risk of illness associated with using surface water that could contain harmful blue-green algae and their toxins, as well as bacteria, parasites and viruses.

About Harmful Blue-green Algae and Health Effects

Harmful blue-green algae blooms have been occurring in surface waters throughout New York State. Contact with water with blue-green algae and their toxins can cause health effects. Symptoms include diarrhea, nausea or vomiting; skin, eye or throat irritation; and allergic reactions or breathing difficulties. Animal illnesses and deaths also have occurred when animals consumed large amounts of accumulated algal scum from along shorelines or when animals groomed blue-green algal scums from their fur.

Recommendations for People with Private Surface Water Intakes

- **Never drink untreated surface water, bloom or no bloom.** Untreated surface water might contain blue-green algae and their toxins. It can also contain other bacteria, parasites or viruses that can cause symptoms such as diarrhea, nausea and vomiting. Young children, pregnant women, older adults and people with health issues are at higher risk from symptoms associated with these drinking water contaminants.

If you must wash dishes with untreated surface water, rinse with bottled water. You may also consider not using it during a bloom for showering, bathing or washing, especially if your water looks cloudy.

- **Even if you have an in-home treatment system, use bottled water during a bloom.** Don't drink, prepare food, cook or make ice with surface water during a bloom. Boiling the water will not remove blue-green algae or their toxins.

Your Household Water Could Contain Blue-green Algae and Toxins if:

- The surface water is strongly colored (blue-green, green, yellow, white, brown, purple or red) or has a paint-like appearance, or you see floating mats or scums on the water, especially near your surface water intake or shore well.
- There has been public notification of blue-green algae blooms or beach closures near your water intake. The New York State Department of Environmental Conservation (DEC) also lists waterbodies as having a blue-green algae bloom at www.dec.ny.gov/chemical/83310.html.
- Your water looks cloudy coming out of the tap or water pressure changes. This could indicate that your water contains blue-green algae and their toxins as well as bacteria, parasites or viruses that can cause illness. If your water is treated, it could indicate that your system needs service.

About In-home Treatment Systems

If you choose to explore in-home treatment systems, you are living with some risk of exposure to blue-green algae and their toxins and other contaminants.

Please work with a water treatment professional who should evaluate credible third-party certifications such as National Sanitation Foundation standards (NSF P477) and consider your household needs to design and size a system appropriately. Water treatment systems that use some combination of ozone, chlorine, carbon filtration and reverse osmosis may reduce some blue-green algae and their toxins. Ultraviolet light, chloramines, water softeners and boiling water may not reduce blue-green algal toxins.

Your water treatment professional should work with you to develop a plan to evaluate and maintain your system. Systems that are not regularly maintained can result in failure of water treatment and loss of water pressure.

If You Want to Test Your Water

Testing for harmful blue-green algae and their toxins is expensive and provides very limited information about your risk of exposure because testing only shows one limited point in time. Blue-green algae blooms may come and go quickly and the conditions of your household water can change after the water sample is collected. If you choose to test your water, EPA has certified several laboratories at www.epa.gov/sites/production/files/2017-07/documents/ucmr4-lablist.pdf

Tips for Reducing Exposure

- Never drink, prepare food, cook or make ice with untreated surface water. You may also consider not using it during a bloom for showering, bathing or washing, especially if your water looks cloudy.
- Even if you have an in-home treatment system, use bottled water during a bloom. Don't drink, prepare food, cook or make ice with surface water during a bloom. Boiling the water will not remove blue-green algae or their toxins.
- Get connected to public water if you have the opportunity. Public water is always the best option for drinking, preparing food, cooking, or making ice, as well as washing and bathing, because water suppliers are required to treat, disinfect and monitor water for their customers.
- Consider installing a private well using a New York State Department of Environmental Conservation registered well driller. Find a New York State approved water well contractor at www.dec.ny.gov/lands/33317.html
- Keep people and animals away from blooms in surface waters. Don't swim, wade, boat, fish or eat fish caught from areas near blooms.
- Consider visiting a health care provider if you, your family or animals are experiencing symptoms that might be related to blue-green algae exposure.
- Report bloom-related symptoms to your local health department (www.health.ny.gov/EnvironmentalContacts) or harmfulalgae@health.ny.gov
- Report blooms to HABsInfo@dec.ny.gov, your local health department (www.health.ny.gov/EnvironmentalContacts) or harmfulalgae@health.ny.gov

Learn more: www.health.ny.gov/harmfulalgae

Email us: harmfulalgae@health.ny.gov