



CyanoHABs & Drinking Water Fact Sheet

Cyanobacteria and cyanoHABs

Cyanobacteria are a type of bacteria capable of photosynthesis. Although they are not true algae, they are formerly known as “blue-green algae.” Cyanobacteria frequently impart off-tastes and odors to the water in which they grow, and sometimes excessive growth can produce toxins which can be harmful to the health of humans and other animals.

A cyanoHAB is the name given to the excessive growth, or “bloom”, of cyanobacteria, which can produce one or more types of potentially harmful toxins (cyanotoxins) at very high concentrations. CyanoHABs can occur under suitable environmental conditions of light, temperature, nutrients (e.g. phosphorus) and calm water. These “blooms” may result in a thick coating or “mat” on the surface of a waterbody, often in late-summer or early fall.

Cyanotoxins

Some cyanoHABs can potentially be harmful to humans and other animals through the release of toxins (called cyanotoxins) into the surrounding water. Cyanotoxins are usually contained within cyanobacterial cells and toxins can be released during cell death or cell rupture. However, some cyanobacteria species are capable of releasing toxins into the water without cell rupture or death. The most commonly found cyanotoxins in the United States are microcystins, cylindrospermopsin, anatoxin and saxitoxins.

Health Impacts of Cyanotoxins

Depending on the cyanobacteria species and the type of toxins being produced, the ingestion of cyanotoxins through drinking water can have a variety of adverse health effects. Due to these health concerns, many water systems are taking action to reduce the likelihood and risks of cyanotoxin contamination. These methods can include adjusting treatment and monitoring for cyanotoxins.

Can Cyanotoxins Impact Drinking Water?

Some drinking water sources such as rivers, lakes, and reservoirs, can be impacted by a cyanoHAB. However, water systems are aware of the occurrence of cyanoHABs and monitor for signs of a bloom. Some systems have the ability to also take preventative measures to

reduce the likelihood of a bloom from occurring in their water source area(s). Should cyanotoxins enter a water



treatment plant despite preventative and control measures, most water systems with conventional treatment have the ability to treat cyanotoxins effectively at the water treatment plant. Based on sampling during UCRM 4 (<https://www.epa.gov/sites/production/files/2018-10/documents/ucmr4-data-summary.pdf>), it appears that exposure from treated drinking water is rare. If a water system experiences cyanotoxins above the EPA health advisories, your water provider will notify you as soon as possible.

Exposure from Drinking Water

If you received a Cyanotoxin Drinking Water Advisory from your water purveyor, you should not drink the water until the Advisory is lifted. Exposure can occur by drinking the water or using it to make beverages and foods such as tea, coffee, baby formula, or to prepare foods that contain water (e.g., oatmeal, soup). Also, boiling the water will not remove the toxins, and may inadvertently increase the cyanotoxin concentration. Significant exposure is not known to occur when using the tap water for showering, bathing, washing hands, washing dishes, flushing toilets, cleaning and doing laundry. Infants, young children under the age of six, and pets should be supervised while bathing and during other tap water-related activities to prevent accidental ingestion of water.

For Frequently Asked Questions and more information on cyanotoxins in drinking water please visit our website <https://www.state.nj.us/dep/watersupply/hab.html>.

For information and actions that you can take to help can be found here: <https://www.state.nj.us/dep/hab/>.