

# Harmful Algal Blooms

## Implications and Advisories for Tap/Drinking Water

### Harmful Algal Blooms (HABs)

While not all algal blooms are dangerous, harmful algal blooms (HABs) are caused by a large growth of cyanobacteria that release toxins into the water. Blooms are often visible on the water surface as unusually colored water with varied textures and patterns. HABs are most readily observable in recreational waters including lakes, ponds, streams, and rivers, where influxes in nitrogen and phosphorus from contaminants allow the cyanobacteria populations to increase rapidly. These water bodies are often used for recreation and as drinking water sources, making them a possible source of HAB exposure to the public.

### Symptoms and Health Effects of HAB-Related Illness

The public can be exposed to cyanotoxins through tap and drinking water by ingestion, inhalation of aerosols, and/or skin contact. Symptoms depend on the type of toxin and may include diarrhea, vomiting, abdominal pain, kidney toxicity, hives, weakness, allergies, sore throat, numbness, dizziness, difficulty breathing, rashes, and a runny nose. For more information on the health effects of HAB-related illness, please visit the Ohio Department of Health Harmful Algal Bloom webpage at: [www.odh.ohio.gov/habs](http://www.odh.ohio.gov/habs).

### Types of Advisories

Ohio communities and/or public water systems issue two types of drinking water advisories depending upon the level of HABs toxins. Advisory thresholds are established based on research studies to better protect public health.


| Type of Advisory  | Microcystin | Anatoxin-a | Cylindrospermopsin | Saxitoxin |
|---|-------------|------------|--------------------|-----------|
| <b><i>Do Not Drink Advisory for children under six and sensitive populations including:</i></b> <ul style="list-style-type: none"> <li>• Bottle-fed infants and children under 5</li> <li>• Pregnant women and nursing mothers</li> <li>• Individuals with pre-existing liver conditions</li> <li>• Individuals receiving dialysis treatment</li> <li>• Elderly individuals</li> <li>• Individuals with compromised immune systems</li> </ul> | 0.3 µg/L    | 0.3 µg/L   | 0.7 µg/L           | 0.3 µg/L  |
| <b><i>Do Not Drink Advisory for children six and older and adults, including pets</i></b>   | 1.6 µg/L    | 1.6 µg/L   | 3.0 µg/L           | 1.6 µg/L  |

*Note that values are reported in µg/L (microgram per cubic liter), which is equal to one (1) part per billion (ppb).*

### Precautions During a Drinking Water Advisory

During a drinking water advisory for children under six and sensitive populations, an alternative water source, such as bottled water, should be used for drinking, preparing food, making infant formula, brushing teeth, and making ice for these individuals.

- Children under six should be supervised when bathing to prevent accidental ingestion.
- Skin irritation, such as a rash may occur from exposure when washing hands and bathing.
- Providing a final rinse of skin with uncontaminated water is recommended, especially for items that go into the mouths of infants and children under the age of six years (i.e., teething rings, nipples, bottles, toys, silverware).



**During a drinking water advisory for children and adults, alternative water should be used for drinking (including pets), making infant formula, making ice, brushing teeth and preparing food.**

- The cautions listed for children under six and sensitive populations listed above still apply.
- During a drinking water advisory, healthy individuals may continue to use the water for washing hands, bathing, washing dishes, and doing laundry.

**For all advisories:**

- Do not boil the water. Boiling the water will not remove the toxins.
- You may use water for flushing toilets.

**Public Health Guidance for Specific Settings During Drinking Water Advisories**

ODH offers guidance for specific settings after a community and/or a public water system issues a drinking water advisory. For information on actions to take in these settings visit [www.odh.ohio.gov/habs](http://www.odh.ohio.gov/habs) and select “resources”.

- |   |                                   |  |
|---|-----------------------------------|--|
| • Ambulatory Surgical Facilities        | • Fire Departments                | • Pet Stores   |
| • Birthing Centers                      | • Food and Beverage Manufacturing | • Pools/Waterparks/Spas                                |
| • Campgrounds/ Resident Camps           | • Food Service Operations         | • Private Homes  |
| • Daycare/Day Camp/Preschool Facilities | • Retail Food Establishments      | • Private Water Systems                                |
| • Dental Offices/Clinics                | • Home Health                     | • Residential Care/Assisted Living Facilities          |
| • Dialysis Centers                      | • Hospice                         | • Skilled Nursing Facilities/Long-Term Care Facilities |
| • In-Home Dialysis                      | • Hospitals                       | • Schools and Universities                             |
|   | • Nuclear Power Stations          | • Women, Infant and Children Programs                  |
|   | • Office Buildings                |  |

**Actions to Take**

Be informed when planning to visit a water body. See the resources and information below.

- Use BeachGuard to view current Ohio HAB and *E. coli* advisories: [www.publicapps.odh.ohio.gov/beachguardpublic](http://www.publicapps.odh.ohio.gov/beachguardpublic)
- More HAB information can be found at [www.ohioalgaefinfo.com](http://www.ohioalgaefinfo.com)
- Report a sighting of a HAB using the bloom report form:  
[www.epa.ohio.gov/static/portals/35/hab/HAB\\_Report\\_Form.pdf](http://www.epa.ohio.gov/static/portals/35/hab/HAB_Report_Form.pdf)
  - Send completed reports to [HABMailbox@epa.ohio.gov](mailto:HABMailbox@epa.ohio.gov)
  - Alternatively, a web report form may be completed at:  
<https://survey123.arcgis.com/share/ac459f1f0b344bfa93c0486b028fba6>
- Report a drinking water HAB-related illness using the appropriate form:  
[www.odh.ohio.gov/HABDrinkingForm](http://www.odh.ohio.gov/HABDrinkingForm)
  - Illness reports and questions should be reported to your local health district (LHD). Find your LHD using the webtool: [www.odh.ohio.gov/GetMyLHD](http://www.odh.ohio.gov/GetMyLHD)

**Contact Us**

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