

Harmful Algal Blooms

Advisories and Illness Reporting for Recreational Waters

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.

Exposure and Symptoms of HABs in Recreational Environments

People can be exposed to HABs while recreating in water by:

- Ingestion – Incidental/accidental swallowing of contaminated water such as during recreational activities.
- Skin Contact – Swimming, skiing, tubing and other recreational activities in HABs contaminated waters.
- Inhalation – Breathing aerosolized water droplets (misting) of HABs-contaminated water from recreational activities such as jet-skiing or power boating.

Symptoms are dependent on exposure path to a HAB and may include diarrhea, vomiting, abdominal pain, kidney toxicity, hives, weakness, allergies, sore throat, numbness, dizziness, difficulty breathing, rashes, and a runny nose.

Types of Advisories

Managers of public and private water bodies issue two types of Recreational Water Advisories depending on toxin levels. Thresholds are established based on research studies to protect public health.

Type of Advisory	Microcystin	Anatoxin-a	Cylindrospermopsin	Saxitoxin
Recreational Public Health Advisory – A sign is posted on beaches when toxin levels exceed the recommended threshold, warning that swimming and wading are not recommended for children, pregnant or nursing women, those with certain medical conditions, and pets.	6 µg/L	80 µg/L	5 µg/L	0.8 µg/L
Elevated Recreational Public Health Advisory – A sign is posted on beaches when toxin levels exceed the recommended threshold stating that algal toxins have been detected, and to avoid all contact with the water	20 µg/L	300 µg/L	20 µg/L	3 µg/L

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

Actions to Take

When planning to visit a water body, review the following actions in case of a HAB or a HAB-related illness.

- Use the BeachGuard app to view current Ohio HAB and *E. coli* advisories: publicapps.odh.ohio.gov/beachguardpublic
- Report a sighting of a HAB using the bloom report form: epa.ohio.gov/portals/35/hab/HAB_Report_Form.pdf
 - Send completed reports to HABMailbox@epa.ohio.gov
- Report a recreational water HAB-related illness using the appropriate form: www.odh.ohio.gov/HABRecreationForm
 - Illness reports and questions should be discussed with your local health district (LHD). Find your LHD using the webtool: www.odh.ohio.gov/GetMyLHD

Contact Us

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