

A harmful algal bloom (HAB) occurs when certain kinds of microscopic organisms multiply and produce toxins in a waterbody or waterway. The organisms that most commonly cause HABs in Pennsylvania's fresh and brackish waters are known as cyanobacteria or blue-green algae. Some HABs can cause water to smell like rotting plants and be blue, green, brown, or red, and resemble paint floating on the water, foam, scum, or mats. While cyanobacteria are a natural part of many aquatic ecosystems, certain conditions such as high nutrients and warm temperatures allow cyanobacteria to produce cyanotoxins. In high enough concentrations, cyanotoxins can be harmful to humans, pets, and wildlife that come in contact with or ingest the toxins.

HOW ARE PEOPLE AND ANIMALS EXPOSED TO HABs?

People and animals can encounter HABs by physically touching, ingesting, and inhaling cyanobacteria and/or cyanotoxins while swimming and boating; eating fish caught in contaminated water; using contaminated water to prepare food; or drinking contaminated water. For dogs and livestock, eating algae and licking fur after swimming in contaminated water could expose them to HABs.

WHAT ARE SYMPTOMS OF HAB-ASSOCIATED ILLNESS?

Exposure to HABs may cause a range of mild to severe symptoms in humans and animals, referred to as HAB-associated illnesses. The duration and type of symptoms can vary depending on how they were exposed, how long they were exposed, and the particular HAB toxin involved.

Human symptoms may include:

- Rashes, blisters, or hives
- Eye and nose irritations
- Diarrhea or vomiting
- Abdominal pain
- Numbness of lips
- Tingling in fingers and toes
- Dizziness
- Headache
- Shortness of breath

Animal symptoms may include:

- Staggering, stumbling, or falling
- Difficulty breathing
- Convulsions, tremors, or seizures
- Excessive drooling
- Vomiting or mouth foaming
- Weakness
- Loss of energy or appetite



WHAT ARE THE TESTING AND TREATMENT OPTIONS?

There are currently no available tests or specific treatments for HAB-associated illnesses in humans or animals. If a patient exhibits any of the symptoms listed above, determine if they may have been exposed to HABs or if they have recently consumed fish or shellfish that could be contaminated with HAB toxins. If so, provide symptomatic and supportive treatment until symptoms resolve. Symptoms usually resolve within a few days, with or without supportive treatment.

HOW ARE HABs AND HAB-ASSOCIATED ILLNESS REPORTED?

State health departments and their designated environmental and animal health partners can voluntarily report information about local HABs and associated illnesses to the Centers for Disease Control and Prevention (CDC) through the One Health Harmful Algal Bloom System (OHHABS). OHHABS collects data on individual human and animal cases of HAB-associated illnesses and environmental data about HABs to help understand and prevent HABs and associated illnesses. The PA Department of Health updates OHHABS with HABs and associated illness occurrences in Pennsylvania via reported incidences sent to env.health.concerns@pa.gov or HABs@pa.gov.

**If you have any health-related questions about HABs, contact us at env.health.concern@pa.gov.
For other inquiries about HABs or to report a HAB, contact HABs@pa.gov.**