

## Fact sheet

# Harmful algal blooms (Blue-green algae)

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### What are harmful algal blooms (HABs)?

Cyanobacteria, also known as blue-green algae, are a type of photosynthetic (use sunlight to create food and support life) bacteria found naturally in aquatic ecosystems. They are microscopic, but become visible in water when they form a colony, or bloom. Blooms are more likely to occur in the summer or fall when water is warm, slow-moving, and full of nutrients. They can form in fresh, brackish, or marine water. Blooms can become harmful to people, animals, and the environment when they produce toxins called cyanotoxins or become too dense, use up the oxygen in the water, or release harmful gasses. The most common types of cyanotoxins found in Utah are microcystins, cylindrospermopsins, anatoxins, and saxitoxins.

### How can I tell if there is a HAB and if it is toxic?

Blooms typically look like foam, scum, mats, or paint on the surface and come in various shades of green, blue, brown, or other colors. They can also grow on rocks near or on the bottom of water bodies making them difficult to spot. As cyanobacteria begin to die off and decay, they can release gasses that smell like rotting eggs, fish, or plants. Other signs that a bloom is toxic may be large numbers of dead fish, waterfowl, or other animals within or around a body of water. Not all cyanobacteria produce toxins and not all blooms are harmful.

You cannot tell whether a bloom is harmful just by looking, so when in doubt stay out!

### How can you be exposed to HABs?

You can be exposed to cyanobacteria and cyanotoxins through skin contact with contaminated water, swallowing contaminated water or food, or through breathing in contaminated water droplets or mist. Recreational water activities such as swimming, boating, jet-skiing, and fishing, or eating contaminated fish are common ways you can be exposed.

### What are the signs and symptoms of HAB-related illness?

Symptoms depend on the type of cyanobacteria or toxin you were exposed to, duration of exposure, and how you were exposed (i.e. skin contact, ingestion, inhalation). Common symptoms include rashes, blisters, coughing, wheezing, congestion, sore throat, earache, eye irritation, diarrhea, vomiting, or headache. Long-term exposure may result in nerve and/or liver damage. Pets and wildlife can die after exposure, but worldwide there have been no confirmed human deaths.

### How long after exposure do symptoms appear?

Symptoms typically occur within hours to 2 days after exposure and can last a few days.

### **Who is most at risk?**

Children may be more at risk to the effects of cyanotoxins due to their smaller size. Children may also be more likely to participate in activities where water is swallowed or inhaled. Animals can get sick, too, and are especially at risk because they are less likely to avoid swimming in and drinking from contaminated water.

### **What type of health problems are caused by HAB-related illnesses?**

The long-term health effects from cyanobacteria and cyanotoxin exposure remain unclear. Because we are still learning about long-term effects, it is important to avoid exposure to HABs.

### **How are HAB-related illnesses diagnosed?**

Currently, there are no laboratory diagnostic tests which can confirm the presence of cyanotoxins in human specimens. A presumptive diagnosis can be made based on exposure history, signs and symptoms, and ruling out other illnesses.

### **How are HAB-related illnesses treated?**

Treatment is supportive. There are no known antidotes to cyanotoxins or specific treatments. When seeking treatment, let your healthcare provider know you may have been exposed to a HAB.

### **How can exposure to HABs be prevented?**

If you suspect there may be a HAB, do not enter the water or let your pets enter the

water. Make sure to [check advisories](#) before visiting a body of water and follow any guidance to reduce your chances of getting sick. Never drink untreated surface water, whether or not a bloom is present. Do not boil water affected by a HAB, as this will concentrate the cyanotoxins. Use caution when consuming fish caught from HAB affected waters. Fish are generally safe to eat as long as they have been washed with clean water and all fat, skin, and organs have been removed.

### **What should I do if I have been exposed to a HAB?**

If you suspect you or your pet came into contact with water affected by a HAB, immediately rinse off with soap and clean water. Do not let pets lick their fur until they have been rinsed. Report any illnesses to the Utah Poison Control (800-222-1222) and talk to your healthcare provider for advice on how to relieve your symptoms. You should also call your veterinarian right away if your pet has been exposed. Any suspected blooms should be reported to the 24-hour Utah DEQ Environment Incidents Line (801-536-4123).

### **Where can I get more information?**

- Your personal healthcare provider
- [Centers for Disease Control & Prevention](#)
- [Utah Department of Health and Human Services](#)
- [Utah Department of Environmental Quality](#)

