

Supplemental Material for

“One Health Outreach Efforts in Responding to Harmful Algal Blooms Issues in Hotspot Regions”

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In this supplement we provide the list and description of publicly available outreach and educational material mentioned in our article.



Figure 1. The One Health Harmful Algal Bloom System (OHHABS). Click on the image to be directed to the website or visit <https://www.cdc.gov/habs/ohhabs.html>.

Veterinarian Reference/Exposure and Clinical Information (CDC 2019) (Figures 2, 3 and 4) can be downloaded at <https://www.cdc.gov/habs/materials/reference-cards.html>.

Physician Reference

Cyanobacteria blooms. When in doubt, it's best to stay out!

What are cyanobacteria?

- Cyanobacteria, sometimes called blue-green algae, are microscopic organisms that live in all types of water.

What is a cyanobacteria bloom?

- Cyanobacteria grow quickly, or bloom, when the water is warm, slow-moving, and full of nutrients.

What are some characteristics of cyanobacteria blooms?

- Cyanobacteria usually bloom during the summer and fall. However, they can bloom anytime during the year.
- When a bloom occurs, scum might form on the water's surface.
- Blooms can be many different colors, from green or blue to red or brown.
- As the bloom dies off, you might smell an odor that is similar to rotting plants.

What is a toxic bloom?

- Sometimes, cyanobacteria produce toxins.
- The toxins can be present in the cyanobacteria cells or in the water.

Other important things to know:

- Swallowing water that has cyanobacteria or cyanobacterial toxins in it can cause serious illness.
- Dogs might have more severe symptoms than people, including collapse and sudden death after swallowing the contaminated water while swimming or after licking cyanobacteria from their fur.
- There are no known antidotes to these toxins. Medical care is supportive.

You cannot tell if a bloom is toxic by looking at it.

To report a cyanobacteria bloom or related health event:

- Call your local or state health department

For more information:

- <https://www.cdc.gov/habs/general.html>

National Center for Environmental Health
Division of Environmental Health Hazards and Health Effects

Figure 2. Physician Reference Card: What We Know About Exposure to HAB Toxins and Possible Health Effects
[Click here to visit the website or to download full-size image.](#)

Animal Safety Alert

CYANOBACTERIA BLOOMS

When in doubt, it's best to keep out!



What is a cyanobacteria bloom?
Cyanobacteria, sometimes called blue-green algae, are microscopic organisms found naturally in all types of water.

- Cyanobacteria grow quickly, or bloom, when the water is warm, stagnant, and full of nutrients.
- Cyanobacteria blooms usually occur during the summer and fall. However, they can occur anytime during the year.
- When a bloom occurs, scum might float on the water's surface.
- Blooms come in different colors, from green or blue to red or brown.
- As the bloom dies off, you may smell an odor like rotting plants.

What is a toxic bloom?
Sometimes, cyanobacteria produce toxins.

- The toxins can be present in the cyanobacteria cells or in the water.
- Swallowing water with cyanobacteria that are producing toxins can cause serious illness.

You cannot tell if a bloom is toxic just by looking at it

Figure 3. Pet Safety Card and Poster: Health and Safety Tips for Pets and Livestock
[Click here to visit the website or to download full-size image.](#)

Veterinarian Reference

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Figure 4. Veterinarian Reference Card: Health Effects from Exposure to HAB Toxins Derived from Reports of Animal Poisonings
[Click here to visit the website or to download full-size image.](#)