Keeping Dogs Safe from Cyanobacteria Blooms

Learn More or Ask Questions
https://www.uvm.edu/seagrant/outreach/cyanobacteria
Email: seagrant@uvm.edu

How to reduce dogs’ risk of poisoning?
• Learn to recognize cyanobacteria so you know when it is safer to let your dog in the water.
• Keep your dog on a leash near shorelines.
• If you see evidence of cyanobacteria blooms, don’t let your dog wade, drink the water, or eat/walk in beach debris.
• If your dog is exposed to a suspected bloom, remove them from the contaminated water immediately.
• Don’t let your dog lick their fur or paws after getting out of the water.
• Wearing rubber gloves if possible, rinse/wash your dog thoroughly with fresh water from a safe source (e.g., bottled water or water from a garden hose). Then dry your dog with a clean towel or rag and wash your hands.
• If a safe source of water is not available, use a towel or rag to remove bloom debris from the dog’s fur.
• Watch your dog closely for symptoms described in this brochure.

More information on cyanobacteria:
• VT Dept of Health: www.healthvermont.gov/health-environment/recreational-water/cyanobacteria-blue-green-algae
• VTDEC: http://dec.vermont.gov/watershed/lakes-ponds/learn-more/cyanobacteria
• Lake Champlain Committee: https://www.lakechamplaincommittee.org/lcc-at-work/cyanobacteria-in-lake
• NYSDEC: www.health.ny.gov/environmental/water/drinking/bluegreenalgae.htm
• Lake Champlain Basin Program: https://www.lcbp.org/our-goals/clean-water/nutrients-and-cyanobacteria/

View current bloom status:
• NY HABs Notification: www.dec.ny.gov/chemical/83310.html
• VT Cyanotracker: https://www.healthvermont.gov/tracking/cyanobacteria-tracker

Report suspected blooms:
• VTDEC: Complete online reporting form at: https://go.uvm.edu/reportbloomvt
• NYSDEC: Complete online reporting form at: https://go.uvm.edu/reportbloomny or email HABsInfo@dec.ny.gov
• For both forms, you will be asked to include photos and to describe the size of the bloom and its location.

Axel, a 16-month old black lab came into contact with a cyanobacteria bloom near the Dexter Reservoir in Oregon. Axel later collapsed and was taken to a veterinarian. Despite treatment, Axel died five hours later. Photo courtesy of his owner, Jerry Benedick via KVAL.com.

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Content adapted from “Dogs and Harmful Algal Blooms (HABs) a New York Sea Grant. brochure available at: www.nyseagrant.org/habs.

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Cyanobacteria blooms (sometimes called Harmful Algal Blooms or HABs) are overgrowths of a type of bacteria that use sunlight to reproduce in lakes and ponds. Cyanobacteria blooms sometimes produce potent toxins that can poison people, pets, and livestock. Since the presence of these blooms is increasing in many areas, the number of dog poisonings from cyanobacterial toxins is also on the rise.

This brochure will help you understand the risks and how to recognize if your dog may have been poisoned by toxins. It will also provide you with information to help keep you and your canine companions safe around local water bodies.

Photo by Corrina Parnapy.
**What do cyanobacteria blooms look like?**
- Blooms look foamy, like pea soup or spilled paint.
- Blooms are often green to blue-green colored, occasionally red or brown, or can be white when a bloom is ending.
- Blooms can form scums or floating mats that can wash up and accumulate on shore.

**When do cyanobacteria blooms occur?**
- Blooms are most common during periods of warm, sunny and calm weather in summer and fall.
- Blooms form when water temperatures are 60-86°F.
- Blooms can also form after large storms when stormwater runoff has carried added nutrients to lake and ponds.

**What is important to know about toxins?**
- Toxins are not always present in blooms.
- When present, toxins are colorless, powerful, and can be fast-acting.
- Toxins have no known antidotes.

**Is there a “safe” level of toxin exposure?**
- Toxic cyanobacteria die and decompose.
- Toxins can affect the liver, nerves, and skin.
- State agencies collect water samples to determine cyanobacterial toxin concentrations and post results on their websites.
- When a bloom is present and toxin levels are unknown (i.e., in unmonitored lakes or before test results are available), pet owners should keep dogs out of the water.

**How do dogs exposed to toxins?**
- Dogs are more susceptible than humans to cyanobacterial toxin poisoning because they are often attracted to algal scum odors, and may drink contaminated water, eat washed up mats or scum of toxic cyanobacteria, and have skin contact with water. After leaving the water, dogs can also be poisoned as they groom their fur and paws.

**Toxins have no known antidotes.**

**What are signs of possible cyanobacterial toxin poisoning in dogs?**
- Seek immediate veterinary care or contact a pet poison hotline if you suspect cyanobacterial toxin poisoning in your dog. Untreated, such poisonings are usually fatal. Even in cases where a poisoned dog receives prompt veterinary care, the outlook is often poor and the dog may not fully recover. Veterinary care can last a few days to several weeks.

**24-Hour Pet Poison Hotlines**

- **Animal Poison Control Center:**
  - (855) 764-7661
  - $75 per incident fee
  - www.petpoisonhelpline.com

- **ASPCA:**
  - (888) 426-4435
  - A consultation fee may apply
  - www.aspca.org/pet-care/animal-poison-control

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**Common Signs of Cyanobacterial Toxin Poisoning in Dogs and Health Risks**

<table>
<thead>
<tr>
<th>Common Signs of Cyanobacterial Poisoning</th>
<th>Liver Toxins</th>
<th>Nerve Toxins</th>
<th>Skin Toxins</th>
</tr>
</thead>
<tbody>
<tr>
<td>- repeated vomiting (green liquid)</td>
<td>- diarrhea</td>
<td>- stumbling, seizures, convulsions, paralysis</td>
<td>- skin rashes, hives</td>
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<tr>
<td>- jaundice (yellowing of eye whites, gums)</td>
<td>- loss of appetite, anorexia</td>
<td>- excessive salivation, drooling</td>
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<tr>
<td>- abdominal swelling; may be tender to the touch</td>
<td>- bluish coloration of skin</td>
<td>- disorientation, inactivity or depression</td>
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<tr>
<td>- dark urine or reduced/no urine output</td>
<td>- blisters</td>
<td>- elevated heart rate, difficulty breathing</td>
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</tbody>
</table>

**Immediate Danger** (signs within 24 hours):
- >100 ppb toxins
- >100 ppb toxins
- no data

**Delayed Effects** (signs after prolonged or repeated exposure):
- >2 ppb toxins
- >2 ppb toxins
- no data

*Source: California Environmental Protection Agency, Dept. of Environmental Protection. Toxic concentrations are reported in parts-per-billion (ppb). 1 ppb is roughly the same concentration as 1 drop of ink in an in-ground swimming pool.