

## How to recognize a bloom

- Blooms can appear foamy, look like pea soup or spilled paint, or be streaked.
- Blooms are often green to blue-green colored, occasionally red or brown, or can be white when a bloom is ending.
- They can also form scums, clumps or floating mats that can accumulate on shore.



Quebec MDDELCC and LCBP



Corrina King



Kris Stepenuck

## How to reduce dogs' risk of poisoning?

- Keep your dog on a leash near shorelines.
- Learn to recognize cyanobacteria blooms and scan the water for them.
- 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 water immediately.
- Don't let your dog lick their fur or paws after getting out of the water.
- Wearing rubber gloves, rinse/wash your dog thoroughly with water from a safe source (e.g., bottled water or water from a hose). Then dry your dog and wash your hands.
- If a safe source of water is not available, use a towel or rag to remove bloom debris from your dog's fur.
- Watch your dog closely for symptoms described in this brochure.

## More information on cyanobacteria

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



Jerry Benedick via KVAL.com

*Axel, a 16-month old black lab came into contact with a cyanobacteria bloom in Oregon. Axel later collapsed and was taken to a veterinarian. Despite treatment, Axel died five hours later.*

## Learn more or ask questions

[uvm.edu/seagrant/outreach/cyanobacteria](https://uvm.edu/seagrant/outreach/cyanobacteria)

Email: [seagrant@uvm.edu](mailto:seagrant@uvm.edu)



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# KEEPING DOGS SAFE FROM CYANOBACTERIA BLOOMS (HABS)



Mark Malchoff

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. The presence of these blooms is increasing in many areas, putting both animals and humans at risk.

This brochure will help you understand the risks, how to recognize cyanobacteria blooms, how to keep both you and your dog safe from exposure, as well as what to do if your dog has been exposed to a bloom or poisoned by toxins.

When do cyanobacteria blooms occur?

- Blooms are most common during 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 lakes and ponds.

What is important to know about toxins?

- Toxins are not always present in blooms.
- It is impossible to tell visually or by odor if a bloom is toxic.
- When present, toxins are colorless, powerful, and can be fast-acting.
- Toxins have no known antidotes.
- Toxins are released as cyanobacteria die and decompose.
- Toxins can affect the liver, nerves, and skin.
- State agencies collect water samples to determine 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 are dogs exposed to toxins?

Dogs are more susceptible than humans to cyanobacterial toxin poisoning because they are often attracted to bloom odors, and may drink contaminated water, eat washed up mats or scum of toxic cyanobacteria, and have skin contact with water. Dogs can also be poisoned as they groom their fur and paws.

Is there a “safe” level of exposure?

Dog health risks depend on the type of toxin, its concentration, amount consumed, size of dog, and length of exposure. The California Department of Environmental Protection estimated a 40 lb dog could ingest up to 2 quarts of lake water and 1 pound of cyanobacteria per day through drinking, grooming and eating. If toxins are present, this can result in immediate (within 24 hours) or delayed effects. Health effects can be delayed when a dog has longer or repeated exposure to lower toxin concentrations (<2 ppb) over 15% of its lifetime. Dogs less than 40 lb are expected to have higher health risks when

exposed to the same concentration of toxins as larger dogs.

What are signs of cyanobacterial toxin poisoning in dogs?

If your dog swam in a lake or pond with a bloom, closely monitor them for signs of poisoning (see table). These can occur within 30 minutes to a few hours after exposure. In severe cases, dogs can show signs of poisoning within a few minutes and can die within an hour of toxin exposure. Signs may not always appear together.

What if your dog has been exposed to cyanobacterial toxins?

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 dog may not fully recover.

24-hour pet poison hotlines

- **Animal Poison Control Center:** (855) 764-7661  
\$75 per incident fee  
[petpoisonhelpline.com](http://petpoisonhelpline.com)
- **ASPCA:** (888) 426-4435  
A consultation fee may apply  
[aspca.org/pet-care/animal-poison-control](http://aspca.org/pet-care/animal-poison-control)

View current bloom status

- **NY HABs Notification:** [dec.ny.gov/chemical/83310.html](http://dec.ny.gov/chemical/83310.html)
- **VT Cyanotracker Map:** [healthvermont.gov/tracking/cyanobacteria-tracker](http://healthvermont.gov/tracking/cyanobacteria-tracker)

Report suspected blooms

Note the location of the bloom, estimate its size and take photos. Then complete a reporting form or email to report your observation using the following information:

- **Vermont:** [go.uvm.edu/reportbloomvt](http://go.uvm.edu/reportbloomvt) or email [bloomalert@vermont.gov](mailto:bloomalert@vermont.gov)
- **New York:** [go.uvm.edu/reportbloomny](http://go.uvm.edu/reportbloomny) or email [HABsInfo@dec.ny.gov](mailto:HABsInfo@dec.ny.gov)

Common Signs of Cyanobacterial Toxin Poisoning in Dogs*		
Liver Toxins	Nerve Toxins	Skin Toxins
<ul style="list-style-type: none"><li>• repeated vomiting (green liquid)</li><li>• diarrhea or bloody stool</li><li>• loss of appetite</li><li>• jaundice (yellowing of eye whites, gums)</li><li>• abdominal swelling; may be tender to the touch</li><li>• bluish coloration of skin</li><li>• dark urine or reduced/no urine output</li></ul>	<ul style="list-style-type: none"><li>• stumbling, seizures, convulsions, paralysis</li><li>• excessive salivation/drooling</li><li>• disorientation, inactivity or depression</li><li>• elevated heart rate, difficulty breathing</li></ul>	<ul style="list-style-type: none"><li>• skin rashes, hives</li></ul>

\*Source: California Environmental Protection Agency, Department of Environmental Protection