



Toxic Algae Kills Dogs across the Country

Is this a serious concern, or is it hype?

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For many dogs, there's little better than plunging into a mucky pond on a hot day. However, be aware that many ponds today contain a type of algae that is extremely dangerous for your Cairn Terrier.

What Is Toxic Algae?

Toxic algae is a real risk for dogs. Exposure can be fatal to dogs within 30 to 60 minutes. In 2019 canine deaths from toxic algae were reported in three US states: Florida, Texas and Georgia.

The **blue-green** algae, also known as "cyanobacteria," produce toxins that are harmful to people and pets. This variety of algae contains a poisonous substance that is capable of causing serious debilitation or even death. Toxic algae are a common summer problem that can kill your dog in minutes. The Pet Poison Helpline classifies its level of toxicity as moderate to severe.

Although there are other types of algae, some of which like green algae are not toxic, it is virtually impossible to determine if the algae is toxic or not just by looking at it.

Both blue-green and green algae can appear as dense material on the water's surface that can interfere with activities like swimming and fishing. Algae may give the water a "pea-soup" appearance or it may accumulate in large "mats" near shore. It can be found in fresh or salt water and is usually found in bodies of water when the weather is 75 degrees and sunny. It may also have a bad smell. Both blue-green and green algae have a similar smell, the Environmental Protection Agency (EPA) says.

The blue-green algae are prevalent in the mid-to-late summer months and are most often found in nutrient-rich waters. The algae tend to bloom in locations where there is heat and low water flow combined with high levels of nutrients like nitrogen and phosphorus.

The algae overgrowth, typically called a “bloom,” is thought to be the result of fertilizer runoff from farms, and an increase in untreated sewage and rising temperatures during the summer season. The runoff leads to an excess of nutrients like nitrogen and phosphorus in the water, which then leads to the overgrowth of algae blooms.

Nutraceutical Algae

Blue-green algae are different from the species that is considered a super food. It can be very confusing to pet parents to hear about toxic algae blooms because many feed medicinal algae to their pets as a whole food supplement.

Algae grown in controlled environments for the nutraceutical supplement and food industries are entirely different than the algae that naturally bloom in lakes and ponds. Spirulina and other types of health-giving algae are popular supplements and have been proven to be safe and very beneficial in boosting the digestive system.

Others at Risk

While the most common victims of blue-green algae are dogs, because they are likely to swim in or drink from bodies of water that contain algal blooms, other animals are also at risk, including cats, birds, horses, livestock and wildlife that drink from contaminated bodies of water, or even groom themselves after a swim. In humans, exposure to harmful algae can cause a skin rash, hives, runny nose, irritated eyes and throat irritation.

Even breathing in droplets of air contaminated with the algae can cause illness.

Symptoms from Exposure

If your dog drinks affected water or even licks it off themselves, they can become extremely ill and may die. Signs and symptoms of exposure to these toxins include: twitching, vomiting, diarrhea, weakness, shock, disorientation, difficulty breathing, blood in the stool, neurologic signs (muscle tremors, paralysis, seizures), coma, even blue discoloration of the skin and mucous membranes.

The negative effects of toxic algae are caused by the production of harmful compounds including:

- **Microcystins** - Microcystins cause liver failure and you may see vomiting and diarrhea with bloody stool and lethargy, as well as pale mucous membranes and jaundice.
- **Anatoxins** - Anatoxins are a neurotoxin and usually cause muscle tremors, seizures, and paralysis.

When in Doubt, Stay Out

When visiting lakes, rivers, or beaches when on vacation check your local water conditions. Follow any advice your state or local environmental health department posts online or near the water. If a health notice is posted or if you suspect a harmful bloom may be in the water, it's best to keep your dog out of the lake.

Keep your eyes peeled for water discoloration and dead fish floating in the water. Unfortunately, algae isn't always visible -- it may lurk in the bottom of the lake attached to sediment or other plants.

What Actions to Take

If your pet has come into contact with blue-green algae, immediately rinse him with fresh water and, use care when touching and transporting your pet, as skin contact with the algae may lead to rash and irritation to humans. If you have the necessary supplies on hand, administer activated charcoal, as described below. Seek emergency veterinary care.

Unfortunately, death may occur within hours of exposure, even with aggressive care and treatment, which is why preventing exposure is so important.

You should also contact the Pet Poison Helpline at 855-764-7661 for guidance and report the incident for clinical documentation.

Supplies to Carry with You (Shopping List)

1. Activated charcoal. Try to find one of these products:

- **UAA:** Universal Antidote Gel, available at Amazon and veterinary suppliers. This comes in an easy-to-dose syringe that you can use right in your dog's mouth.
- **Toxiban:** If you can get Toxiban with sorbitol its more effective than UAA. It's ready-to-use, activated charcoal suspension containing 10% charcoal, 10% sorbitol and 6.25% kaolin with suspending agents and preservatives intended for uses and emergency of small animals. It's available at Amazon, Walmart, some veterinary suppliers, or from your veterinarian.
- **Or,** buy a powdered charcoal at any health food store, and take a small amount of soft food to mix it with (see **Dosing Charcoal** below).

2. A syringe to give either charcoal, as needed.

Administering Activated Charcoal

*Note: Follow these recommendations if you see **any** rapid onset symptoms when your dog has been in the water -- even if you didn't see blue-green algae! It can hide for a long time in corners and other less visible places.*

If your dog has no symptoms but you think he might have drunk some water...

Immediately give a dose of activated charcoal. This is best used within an hour or two of exposure. Charcoal binds to toxins and can help remove them from his body. If he **has** swallowed some toxic water, it could help him eliminate the toxins. If he hasn't drunk any water, the charcoal won't hurt him.

Administer 1 ml of charcoal per pound of body weight. It's a good idea to calculate how much you'll need ahead of time.

Depending on which charcoal option you bought, here's how to give it:

- **UAA:** use the easy-dose tube to dose it right in his mouth.
- **Toxiban:** you can use the container to put it straight in his mouth, or use a syringe. Be aware that it's liquid and can be messy.
- **Powder:** mix into a slurry with a little soft food your dog loves (a little canned food, pumpkin, yogurt -- just a little, though). This is only for animals that can still lick and eat.

Although no specific "algae antidote" is available, early and aggressive supportive treatment from your veterinarian, including intravenous fluids, electrolytes and seizure control, may help.

As long as a dog is not neurologically impaired, it may be possible for the veterinarian to induce vomiting and/or give medications like activated charcoal or cholestyramine to prevent absorption of more toxins.

Suggestions of Prevention

If you have a pond in your backyard, take care to remove algae and discard it. If the pond contains algae that cannot be removed, you will need to fence off the pond (or restrict access to it) and provide an alternative water source.

References

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(888) 426-4435

www.petpoisonhelpline.com

VCA Swartz Creek Animal Hospital, Susan Swanebeck DVM

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