

# Ask A Vet: Blue-Green Algae Hazard

*Sunday, May 23, 2015*

Dear Dr. Weldy's,

It is summertime and we love to take the dogs with us to the lake as we enjoy boating, swimming and camping at various spots . I was told we should be cautious letting our dogs swim in certain places especially if algae is present. Can you please explain how this could be harmful ?

-Lake Bum

Dear Lake Bum,

Everyone loves the refreshing coolness of water via ponds, lakes or streams whether camping , hiking or swimming . The problem is that certain algae like blue-green algae , also known as Cyanobacteria, are tiny microscopic organisms commonly found in freshwater streams, lakes and ponds. These particular organisms can produce toxins that can affect people, livestock and any pets that swim or drink from these waters contaminated with these bacteria. The blue-green algae will grow and can completely invade the water making it appear blue- green or a "pea soup " color . Sometimes you may see green or blue spread on top of the water. Often this algae will migrate toward shorelines via wind and currents . This is what makes it an easy watering hole for livestock or pets to drink at will . Concentrations of algae are more prominent during hot weather as in mid to late summer . Although it is true most of this type of algae does NOT produce toxins, without testing the water , one can not be certain how harmful they are .

If your dog is at risk from swimming or drinking at ponds or lakes during the hot summer one should be aware of what symptoms to look for. There are two types of toxins associated with this blue-green algae . Depending on the toxin will dictate what signs you may see in your pets .

The first is microcystins and can cause liver damage or complete failure . Symptoms include vomiting, diarrhea, melena ( bloody dark stools), weakness, jaundice, seizures , shock and potentially death. The other toxins are anatoxins. These can cause neurological symptoms such as increased tearing, salivation, muscle tremors, rigid muscles , paralysis and death after exposure due to respiratory paralysis . Unfortunately, livestock that graze or drink from sources contaminated with the toxins may only find dead animals near the water.

If known exposure has occurred , it is of utmost importance to seek medical intervention as soon as possible especially if the animal has not begun to show symptoms. Your veterinarian may induce vomiting initially. If exposure has been through skin , bathing may be the choice plan. Owners and veterinary staff will want to wear adequate protection such as gloves , etc to minimize exposure. One can and should actually save stomach contents for analysis . If signs have started, one will need aggressive medical treatment by the veterinary team to save the animals. This may mean hospitalization with IV fluids , and drugs to counteract the neurological signs or liver failure signs. To my knowledge there is no known antidote for the toxins so monitoring and supportive care is best. Enjoy the water play but be vigilant and you can have a very safe summer.

-Dr. Wanda Schmeltz