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FOR MORE INFORMATION

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Algae Blooms: A Very Serious Danger to Animals and Humans By M. Kathleen Shaw, DVM, Vermont Veterinary Medical Association

Hot summer days make most of us want to get out and enjoy nature, often bringing along our dogs, and it is important to be aware of algae blooms and the potential lifethreatening consequences of human and animal contact with them. Algae are tiny plant like organisms that are found in all types of water. They are essential to the earth because, like plants, they produce oxygen we need to survive. They are found worldwide -from ponds, lakes, and streams in Vermont to the hot springs of Yellowstone to oceans and even under the ice caps in sea water. When the conditions are right- warm weather, stagnant water, and too many nutrientsone type of algae, blue green algae (called cyanobacteria)- can overgrow or "bloom". producing lethal toxins. The cause is climate warming, a combination of fertilizer run off, human manipulation of watersheds (leading to less flora to absorb nutrients), and animal and human waste. According to Greg Boyer, PhD, director of the Great Lakes Research Consortium and a professor of biochemistry at State University of New York, "There are thousands of species of cyanobacteria, but about 200 produce the lethal toxins. Even though it's a small number," Dr. Boyer said, "chances are good they're present in your water body."

How lethal are they? Every year humans, fish, aquatic animals, wildlife, and dogs die from ingestion of the toxins. Death can occur within a few minutes or days. We can be infected when we swim, kayak, fish, or wade through a blue green algae bloom. Serious illness can also occur as a result of inhalation or contact with skin. Thirsty livestock or dogs swimming through the bloom can die within minutes.

So is crucial to know what an algal bloom can look like. Some blooms look like a pea soup, foam, scum, mats, or paint floating on the surface of water. Ponds, lakes, or even the ocean with ongoing blooms may appear blue, green, brown, yellow, orange or red. Because the blooms cause marine life to die, the smell is often horrible (like rotting plants).

If you see an algal bloom, stay out of the water and keep your pets out of the water. There is no way to tell if a bloom is toxic or not just by looking at, so if in doubt do not take the chance and avoid it. If your pet (or you) do go in to water that has a bloom, wash yourself and your pets off immediately with tap/fresh water. Don't let your pets lick off their fur. If you think your pet is sick because of an algal bloom, consult your veterinarian immediately. Symptoms, if not immediately fatal, can include low energy, loss of appetite, vomiting, stumbling and falling, foaming, seizures, or in general any unexplained sickness that occurs within a day or so after being in contact with contaminated water.

Signs in humans depend on the amount and kind of exposure but can include: skin, eye, nose, or throat irritation, abdominal pain, headache, neurological symptoms, vomiting, or diarrhea. Some can suffer liver and kidney damage from the toxins. The symptoms may occur within hours of exposure and may last a few days. If you experience symptoms after being in contact with an algal bloom, call your physician. When it comes to algal blooms, it is best to take the advice of the Centers for Disease Control and Prevention: "When in doubt, it's best to keep out!" For more information, go to www.cdc.gov/habs, www.avma.org. For a map of current conditions around the state, please visit health.vermont.gov.