

What you should know about cyanobacteria

There are health concerns associated with cyanobacteria (aka blue-green algae)

Cyanobacteria can produce several kinds of toxins. Microcystins affect the liver. Anatoxins and saxitoxins affect nerve function. Animal deaths, in particular dogs, have been well documented in many parts of the world. Several dog deaths on Lake Champlain have been linked to cyanobacteria. Human deaths are rare, but have occurred.

Exposure to cyanobacteria can also result in skin irritations and gastro-intestinal illness. Symptoms can range from mild to severe. In some cases, hospitalization is required. Few illnesses related to these algae have been reported in Vermont.

Cyanobacteria toxins can cause serious illnesses and one, BMAA, has also been linked to Lou Gehrig's Disease. According to medical researchers, exposure to BMAA would have to occur over many years and affected individuals likely have a genetic susceptibility to the disease. Understanding how these toxins affect human health in the long-term is an on-going endeavor.

When is risk likely to be highest?

Research on Lake Champlain and elsewhere has found that high toxin levels, which may pose health risks, are associated with high algae density (a "bloom"). Thick surface scums, cloudy green water and foamy shorelines are all indicators of a high density bloom.

Cyanobacteria rise to the surface on sunny calm windless days or in protected areas with less wind and wave activity. Surface scums can develop and disappear in a matter of hours. A change in wind direction or strength will mix them back into the water.

Pets and livestock are most likely to encounter cyanobacteria toxins because of their behavior. Dogs are not particular about what they eat and drink or where they swim. Livestock may only have one source of water. Both groups consume large amounts of water. In Vermont, there have been dog deaths due to cyanobacteria on Lake Champlain.

What's the best way to reduce health issues from cyanobacteria?

You are most likely to come in contact with cyanobacteria through recreational activities like swimming, boating or kayaking. Know what cyanobacteria look like so you can avoid areas where blooms or scums are present.

No one should be drinking untreated surface waters, which can contain cyanobacteria or other pathogens. Most home treatment systems are not designed to remove cyanobacteria or cyanotoxins. You should not use the water until you can confirm that your treatment system effectively copes with cyanobacteria. Not all systems remove cyanotoxins. Boiling does not remove the toxins. Until you can confirm that your system is functioning effectively and no toxins are present, you should not shower or use the water for cooking or dishes. Contact the Vermont Department of Health for assistance.

