



LAKE CHAMPLAIN COMMITTEE (LCC)

LCC is a bi-state nonprofit organization working for a healthy, accessible lake through science-based advocacy, education, and collaborative action since 1963.

OUR CYANOBACTERIA MONITORING PROGRAM

- Raises awareness of the issue, builds a database of information on bloom frequency, and identifies and publicizes potential health hazards.
- Trains hundreds of citizen scientists, state and municipal park staff, town health officers, and public water supply operators.
- Coordinates with VT and NY health, environmental, and recreation agencies.
- Monitors over 100 sites in VT and NY; the information gathered helps us better understand the triggers for blooms and aid in the work to reduce their frequency.

JOIN US

Help us work for clean water by becoming an LCC member or making a donation on our website, over the phone, or by mailing a check to the address below. Your support helps us protect the vitality of Lake Champlain!

CONTACT

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The Lake Champlain Committee's cyanobacteria work and this flier were partially funded through a grant from the Lake Champlain Basin Program.

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AVOID IT.

BACKGROUND

- Cyanobacteria can produce liver toxins and neurotoxins.
- Children and pets are more vulnerable to blooms because of their small body size, likeliness to drink water when in it, and attraction to smelly or colored water.

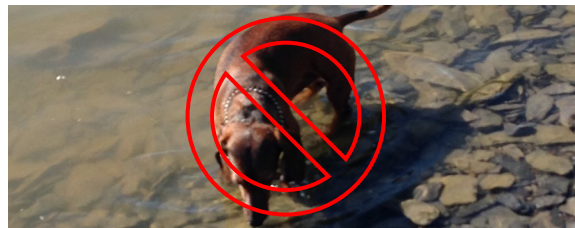
POTENTIAL HEALTH EFFECTS

Humans | Exposure

- Skin irritations, such as rash
- Allergy-like symptoms, such as runny nose, sore throat, watery eyes, and itchiness

Humans | Ingestion

- Abdominal pain, diarrhea, or vomiting
- Dizziness
- Liver damage
- Tingling fingers and toes; numb limbs



Dogs

- Weakness or staggering
- Difficulty breathing
- Diarrhea or vomiting

If you come in direct contact with cyanobacteria, immediately rinse off with clean water. If you experience symptoms, contact your health care provider or vet.

AVOID IT.

DO NOT

- Swim, boat, fish, or wade in areas with blooms, suspicious-looking water, or posted with cyanobacteria warning signs.
- Drink, prepare food, cook, make ice, or brush your teeth with untreated lake water.
- Allow dogs in water with cyanobacteria or let them lick their fur, hair, or paws if they've come in contact with a bloom.

If you suspect a bloom near your water intake, don't use the water. Chlorine, ultraviolet (UV) light, and other in-home treatment systems won't remove cyanobacteria toxins and boiling water can make conditions worse by dispersing toxins in the air.

REPORT IT. WHO DO I TELL IF I SEE A BLOOM?

REPORT BLOOMS TO

Lake Champlain Committee
LCC@LakeChamplainCommittee.org

VT Department of Health
BloomAlert@vermont.gov

VT Cyanobacteria Tracker
<https://www.healthvermont.gov/tracking/cyanobacteria-tracker>

REPORT BLOOM-RELATED SYMPTOMS TO

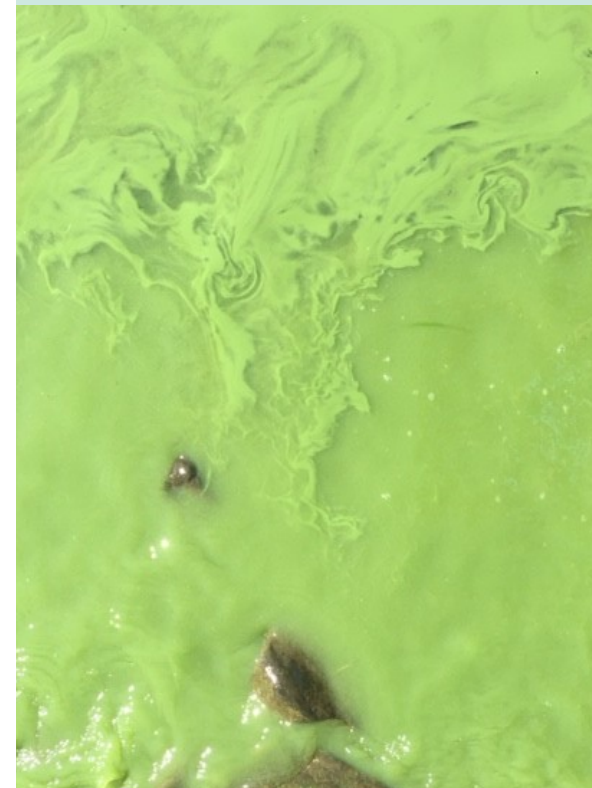
VT Department of Health | 1-800-439-8550

LEARN MORE

- www.lakechamplaincommittee.org
- <https://dec.vermont.gov/watershed/lakes-ponds/learn-more/cyanobacteria>

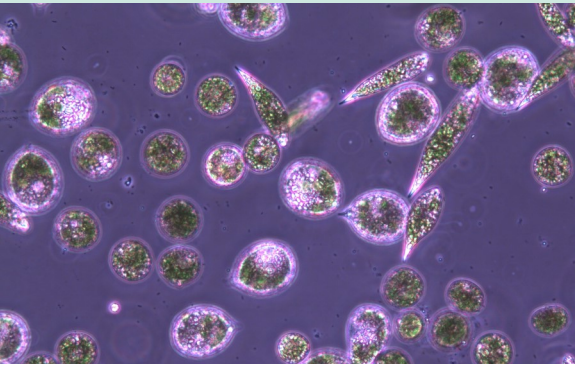


CYANOBACTERIA



RECOGNIZE IT. AVOID IT. REPORT IT.

RECOGNIZE IT. WHAT ARE CYANOBACTERIA?



- Cyanobacteria, pictured above, are microscopic bacteria that live in fresh and saltwater.
- While often referred to as algae, they are cyanobacteria. Cyanobacteria Blooms are sometimes referred to as Harmful Algal Blooms (HABs) and Blue-green Algae Blooms; all three terms describe the same phenomenon.
- They use sunlight to make their own food.
- Many types can regulate their buoyancy, which enables them to move up and down the water column.
- Although microscopic in size as individuals, they can cluster together to form colonies visible to the naked eye.
- Cyanobacteria can produce cyanotoxins under certain conditions.
- Cyan refers to the color blue.
- Cyanobacteria are the oldest known fossils—they're 3.5 billion years old!

RECOGNIZE IT. WHAT ARE CYANOBACTERIA BLOOMS?



- A bloom is a concentration of cyanobacteria that discolors the water.
- Cyanobacteria can multiply quickly, forming blooms that spread across or below the water's surface.
- Not all cyanobacteria blooms give off cyanotoxins.
- You cannot tell if a bloom is producing cyanotoxins by looking at it. The only way to confirm the presence of cyanotoxins is through a lab analysis of a water sample.
- *When in doubt, stay out.*

BLOOM-CAUSING FACTORS

- **Nutrients** | High levels of phosphorus or nitrogen
- **Temperature** | Warm water temperatures, above 60°F, during the summer and fall
- **Weather** | Calm, still, or hot conditions or after storm events that wash nutrients into the water

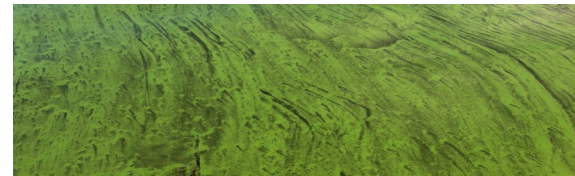
RECOGNIZE IT. WHAT DO CYANOBACTERIA BLOOMS LOOK LIKE?



Detecting cyanobacteria is like learning a new instrument or sport: it takes practice.



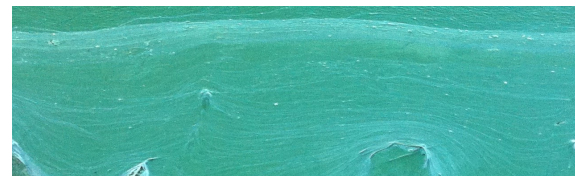
When cyanobacteria starts to be visible in water, they often appear as tiny specks or fuzzy balls.



Looks Like: floating dots, streaks, clumps, globs, mats, scum, spilled paint, pea soup, or an oily sheen



Color: various shades of green, blue, or blue-green, but can be red, purple, brown, or white



RECOGNIZE IT. CYANOBACTERIA LOOK-ALIKES



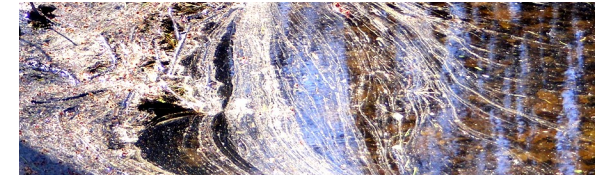
DUCKWEED

What: a tiny aquatic plant

Looks Like: a miniature lily pad with teeny leaves; often a floating mat

Color: green

Where: the water surface of lakes, bays, ponds, marshes, rivers, and streams



POLLEN

What: a fine, powdery fertilizing element of flowering plants

Looks Like: a thin film of sawdust on the water

Color: mustard yellow

Where: the surface of any body of water, especially at shorelines



GREEN ALGAE

What: a non-toxic group of algae

Looks Like: wet fabric on rocks; stringy, hairy, silky, or clumpy; floating rafts or thick mats of bubbling scum

Color: green or brown

Where: the water surface of lakes, ponds, rivers and streams; attached to rocks above and below the water