

# FRESHWATER ALGAL BLOOMS FREQUENTLY ASKED QUESTIONS



## What is blue-green algae?

Blue-green algae, or cyanobacteria, is a type of algae found naturally in freshwater environments. This algae is a microorganism that functions like a plant in that it feeds through photosynthesis and derives its energy from the sun.

Blue-green algae can be found all over the world, and occur in Florida's freshwater and brackish habitats, such as lakes, rivers and estuaries.

## What causes an algal bloom?

Although blue-green algae are found naturally, increases in nutrients can exacerbate the extent, duration and intensity of blooms. Other factors that contribute to blooms include warm temperatures, reduced water flow, and lack of animals that eat algae. Although they can occur at any time, blue-green algae are most common in Florida during the summer and early fall, with high temperatures and abundant sunlight. The summer also brings storms that have the potential to deliver nutrients into waterways through stormwater runoff.

## Are all types of blue-green algae harmful?

Some – not all – blue-green algae can produce toxins that can contribute to environmental problems and affect public health. Little is known about exactly what environmental conditions trigger toxin production. Over time, these toxins are diluted and eventually break down and disappear.

Non-toxic blooms can also harm the environment by depleting oxygen levels in the water column and reducing the amount of light that reaches submerged plants.

## Are algal blooms predictable?

The nature of most freshwater algal bloom events makes it difficult to predict where and when a bloom will occur or how long it will last. However, lessening the negative effects of algal blooms is possible through restoration work to improve water quality by reducing nutrients. Reducing nitrogen and phosphorous levels can help decrease the intensity and duration of algal blooms.

## Can you identify algal type or if it is producing toxins by looking at it?

No, this is why the Florida Department of Environmental Protection (DEP) coordinates with the water management districts and the Florida Fish and Wildlife Conservation Commission to routinely sample observed and reported algal blooms and test for algal identification and toxicity.

## What are the health risks associated with algal blooms?

The Florida Department of Health (DOH) takes the lead in determining if a harmful algal bloom presents a risk to human health. DOH issues health advisories as it determines to be appropriate when toxicity levels are higher and may also post warning signs when blooms affect public beaches or other areas where there is the risk of human exposure.

The World Health Organization considers toxin levels under 10 micrograms/liter to represent a low-level risk for adverse health outcomes from short-term recreational exposure; however, certain sensitive populations (e.g., children, the elderly and immunocompromised populations) may still be at risk even at low concentrations and should avoid any exposure.

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## What should I do if I see an algal bloom in a freshwater system?

The state's bloom response team encourages everyone to be on the lookout for blooms and report them.

Residents statewide can now easily report algal blooms to the department 24 hours a day, 7 days a week. Information can be reported online through at [www.reportalgalbloom.com](http://www.reportalgalbloom.com), as well as through a new toll-free number at 1-855-305-3903.

To report fish that are either dead or in poor physical condition, residents should contact the Fish Kill Hotline 1-800-636-0511.

People experiencing symptoms or illnesses should contact the Florida Poison Control Center at 1-800-222-1222.

## What happens when an algal bloom is reported?

The department collects detailed information such as location, description and size of the bloom. The reports are then evaluated and prioritized for inclusion in near-term sampling plans based on severity of the bloom and potential for human exposure.

## How can I stay updated on algal blooms in my area?

To ensure the health and safety of our state's residents and visitors, DEP is committed to keeping Floridians updated on current algal blooms and how the state is responding to protect human health, water quality and the environment.

DEP is placing sampling results, monitoring and testing information and latest actions by DEP, the water management districts and other local, state and federal response team partners on our [website](#):

Residents can also [subscribe](#) to receive automatic email Algal Bloom Monitoring and Response updates .

## Where are algal bloom samples tested?

Most algal bloom samples are processed in DEP's nationally recognized lab in Tallahassee.

## What does DEP's lab test for?

Algal samples are tested to identify the type of algae present. If the algae is a type that is capable of producing toxins, it is then tested to determine if it is producing toxin and if so, at what level. The toxins typically tested for include microcystin, cylindrospermospin and anatoxin-a.

## How long does it take to test samples?

New On-Site Microcystin Testing Kits allow field staff to perform tests for toxins and provide preliminary information to DOH for consideration of precautionary advisories while official results are processed.

All samples will still be shipped to DEP's laboratory in Tallahassee for formal algal identification and toxin analysis, which can take approximately three to five days.

## Who collects samples?

DEP and Florida's water management districts collect samples when algal blooms are observed during their routine water-quality monitoring as well as when blooms are reported. FWC samples nearshore marine waters.

## How often are samples collected?

DEP and Florida's water management districts frequently monitor Florida's water quality, and routinely collect algal bloom samples as soon as they are observed as part of this effort. In addition, staff can be deployed to take additional samples in response to reported blooms – whether from a citizen, other response team agencies or other sources.

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## If a specific site or bloom is tested, is there a need for retesting?

Yes, because whether a bloom is producing toxins and the levels of toxins produced can vary, recurring and persistent blooms are routinely monitored and retested.

## Who should I contact about beach closures?

For the most up-to-date information regarding public beach closures, residents and visitors are encouraged to contact the counties directly as they have information on the latest actions.

- » Martin County: 772-320-3112
- » St. Lucie County: 772-229-2850
- » Palm Beach County
  - North Palm Beach County (Juno Beach and north): 561-624-0065
  - South Palm Beach County (Riviera Beach and south): 561-629-8775
- » Visit [www.floridastateparks.org](http://www.floridastateparks.org) for state park beach closures