

# Can toxic algae kill humans? California health officials are warning of these poisonous blooms

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Madera County health officials in northern California on Monday issued warnings to the public after high amounts of harmful algae were reported in a lake.

Staff from the Central Valley Water Board have put out signs around Hensley Lake warning people about harmful bright green algae in the [water](#), urging pets and children to stay away from the algae, which contains toxins that are dangerous to humans and animals if ingested. There are different types of toxic algae, but they all still are a threat to human and animal health.

University of Southern California expert Dr. David Caron told reporters, "many water bodies around the country, not just in California ... are reaching a tipping point."

Back in July, harmful blue-green algae prompted beach closures and warnings in Vermont, Rhode Island and Ohio.

Officials have said the death of a Northern California family also may be linked to toxic algae, although no official cause of death has been released.

The U.S. Forest Service in July reported toxic algae was found earlier in the summer in area roughly three miles north of where the family was found. The new Hensley Lake warning is less than 50 miles away from where the family was found.

## **What is toxic algae?**

In balanced ecosystems, the tiny aquatic plants can grow quickly and

usually occur in late summer or early fall.

"You have a higher risk of that happening in the summer, and that's because of higher heat and more stagnant water. That's especially important for freshwater environments," Dr. Erika Holland, assistant professor of biological sciences at California State University of Long Beach, told USA TODAY.

When nutrients are right in the water, the bloom can grow and during that process harmful cyanotoxins can be released. They're typically visible because of their bright color in the water or as a foamy layer near the surface. Holland said it, "may look like a colorful oil spill."

Doug Plitt, Operations Project Manager with the U.S. Army Corps. of Engineers at Hensley Lake, told ABC 30 that a general reaction to look for would be: "Your skin may be irritated, you may notice a rash developing. If you've ingested it, typically you'd get a dry mouth, possibly nausea or vomiting, a headache, or diarrhea."

## **Can it kill humans?**

Toxic algae can be fatal if a person drinks water from a bloom that contains certain toxins.

In California, the most alarming toxin is [domoic acid](#), which can disrupt normal nerve signaling in the brain, causing disorientation and seizures. It can cause death to fish, seabirds, marine mammals and even people.

Although the tiny organisms are regularly there, concentrations of them can create enough toxins to seriously sicken people—primarily children—and be deadly to pets.

"It can be from anywhere from just a little bit sick to it can cause death

within a couple hours or days, depending on how much you are exposed to," Holland said.

She added if you are exposed to it and possibly ingested it, you should take a picture of the water and go to an emergency room and contact poison control. For pets, it's best to get them to a veterinarian as soon as possible.

## **Where is toxic algae found?**

The Centers for Disease Control and Prevention says to look for local advisories before going near lakes, rivers, and oceans. Holland said that toxic algae can be found all across the globe and you can usually tell its presence by its smell.

"Oftentimes, it's really almost like it hurts your nose. It's like an acid almost that burns in your nose a little bit," she said. "In freshwater, it would be more putrid."

Boat activity can move the water around and algae can be concentrated in coves. Officials are warning visitors away from those areas. California State Water Resources has a map where people can voluntarily report where harmful algae is located. Recent reports show they've been spotted throughout the state, but mostly in the north.

## **Was toxic algae to blame for a California family's death?**

Local authorities are trying to determine what caused the mysterious deaths of Northern California family in the Sierra National Forest.

John Gerrish, Ellen Chung and their 1-year-old daughter, Muji, were

reported missing on Aug. 16 and shortly after, they were found dead alongside the Merced River along with their family dog.

An autopsy done on the family gave no conclusive cause as to how the family died, but it did rule out blunt force trauma and gunshot wounds as no physical evidence was found.

Mariposa County Sheriff's Office spokesperson Kristie Mitchell said the investigation would be treated as a hazmat situation.

"We aren't specifically saying this is carbon monoxide, we aren't saying it's toxic algae, we aren't saying that it couldn't be something else. What we wanted to do was just take extra precautions because there are additional hazards in the area," Mitchell told USA TODAY. "That's a hard question to answer. We aren't ruling anything out at this point."

Holland said authorities would be able to tell if the family died from toxic [algae](#) by chemicals present in their tissue, which could be detected in a toxicology report.

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