



Cyanotoxin: What does it mean for your health?

June 8, 2018

The City of Salem recently issued a Health Advisory for vulnerable populations due to detection of cyanotoxins in their drinking water systems. The levels detected to this point are below those expected to cause illness for most of the population. It is safe for most people age 6 and older to drink Salem water. This advisory applies to groups in whom there may be a small chance of illness from the toxin at the current levels.

Based on the current water quality, what populations are considered vulnerable to the toxins in the water?

People who should take steps to prevent exposure to include:

- Infants, children age 5 and younger.
- People with compromised immune systems.
- People receiving dialysis treatment.
- People with pre-existing liver conditions.
- Pregnant women or nursing mothers.
- As a precautionary measure, the elderly should consider following these advisory instructions.
- Pets.

If this information changes, the advisory will be updated as needed.

What is the current situation?

- Detroit Lake has a harmful algae bloom containing cyanobacteria.
- These cyanobacteria, found in harmful algae blooms, are producing toxins, which, at high enough levels, can cause illness
- Water from the North Santiam River, downstream of the lake, is used by several communities for drinking water supplies.
- Small amounts of two cyanobacteria-related toxins have been found in the City of Salem's public drinking water distribution system. As a result, the City of Salem, City of Turner, Suburban East Salem Water District and Orchard Heights Water Association are affected.
- There is a *do not drink* advisory in place for certain vulnerable populations in the affected communities.

What are cyanobacteria?

- Cyanobacteria, found in harmful algae blooms, are single-celled organisms that grow in water.
- In warm weather, when nutrients are plentiful, they may grow quickly or “bloom”, sometimes producing toxins.
- Cyanobacteria release multiple toxins. The two toxins that have been detected in this bloom are *Microcystin* and *Cylindrospermopsin*.

How do sensitive groups avoid exposure to the toxins?

- People who follow the drinking water advisory (www.cityofsalem.net) will avoid further exposure.
- Although boiling water does not remove cyanotoxins, prolonged boiling may result in slightly higher concentrations of the toxins in the water. For healthy people 6 and older, it is safe to boil water to make hot beverages such as coffee or tea. Vulnerable individuals should not drink the water whether or not it has been boiled.
- Pregnant and breast-feeding mothers should not drink tap water but should drink bottled or well water instead.
- Mothers who breast-feed their infants should continue to do so if they are drinking bottled or well water. The benefits of breast-feeding are believed to outweigh any possible risks to infants.

What are the possible health effects of exposure to cyanobacteria?

- Signs of possible exposure may include nausea, vomiting, diarrhea and skin irritation.
- People with underlying liver disease or kidney disease have a small risk of additional liver or kidney damage.
- Some cyanotoxins can injure the nervous system. None of these have been detected in the affected drinking water.

What treatments are available if someone develops toxin-related illness?

- There are no treatments or cures for toxin exposure.
- Health care providers may be able to treat symptoms.
- Patients with prolonged vomiting or diarrhea should drink plenty of fluids. This will help avoid dehydration or electrolyte problems.
- Those with underlying liver or kidney disease, may want to visit a health care provider for their illness. They should also avoid any further exposure.

When should people see a health care provider?

- If you have diarrhea or vomiting for more than a day or two, it might or might not be related to these toxins. A health care professional may be able to treat your symptoms.
- See a health care provider if you have severe vomiting, diarrhea, or skin irritation.
- People with ongoing liver or kidney conditions should seek evaluation if they think that condition is worsening.