



Drinking Water Sampling in Delaware Schools

Information Sheet for Families

The State of Delaware is committed to ensuring safe drinking water in all Delaware schools. This includes monitoring for the presence of lead in water systems and working with schools to help them reduce or eliminate any issues. In October 2022, with the support of a grant from the federal Environmental Protection Agency (EPA), the Delaware Department of Education (DOE) with support from the Delaware Division of Public Health (DPH) began a sampling initiative in Delaware schools to identify the levels of lead within the drinking water system to help reduce risk of exposure to lead in school drinking water. Initial samples indicate lead may only be an issue at a limited number of fixtures in a small number of schools and did not indicate school wide problems.

During COVID-19 building closures, initial lead sampling tested buildings that had extended periods of stagnant water. During this time non-consumption water points were tested that are not expected sources of exposure for school communities. There is a need to better communicate testing results in the next round of sampling initiated in December 2022. For this round, DOE contracted with Batta Environmental Associates, Inc., a Newark-based environmental consultant, to retest all fixtures that initially tested at 7.5 ppb or higher and all consumption points at schools statewide.

Currently, all fixtures that tested at or above 7.5 ppb were either turned off or had signage that noted the water was not for consumption. To ensure the safety of our students and faculty, this was confirmed by school representatives and state survey teams. In addition to these fixtures, as resampling progresses, you may notice additional fixtures turned off for further evaluation or fixtures turned back on after steps are taken to reduce risk or further sampling indicates the fixture is below the action level. As remediation is implemented, you may notice fixtures have been removed, replaced or filters installed. While availability of different fixtures may present some challenges, we want to assure you that the safety of everyone in our schools is our number one priority. We will only make fixtures and consumption points available once we know they are safe.

The resampling and retesting that started in late December 2022 will take a few months to complete. Results will be shared with the respective superintendents and charter leaders as they are received from the lab, and districts/charters will share results and any next steps with their respective communities. Results and updates also will be posted on de.gov/schoolwater.

Lead Risk

Lead is toxic to children and adults. Young children are particularly vulnerable to lead because the physical and behavioral effects of lead occur at lower exposure levels in children than in adults. In children, low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells. EPA estimates drinking water can make up 20% or more of a person's total exposure to lead. [According to the CDC](#), many sources can be involved leading to elevated blood lead levels including from paint, soil, and drinking water. If you think that you or your child have been exposed to lead, you should seek guidance from a medical provider. How long it takes to return an elevated blood lead level depends on weight of the person, amount of exposure from actually touching lead down to lead in dust, and other factors. In general, it takes repeated, ongoing exposure to create an elevated blood lead level.

How Lead Can Get in Your Child's School Water

Lead can enter drinking water when plumbing materials containing lead corrode. The most common sources of lead in drinking water are copper pipe with lead solder, galvanized pipe, faucets, lead goose necks, and lead service lines (LSL). Typically, the most significant source of lead in water is due to LSLs. LSLs are lead pipes that connect the school or facility to the water main. Lead pipes are more likely to be found in structures built before 1986. For schools without LSLs, the most common lead source is plumbing with lead solder and brass or chrome-plated brass faucets.

A number of factors are involved in the extent to which lead enters the water, including the chemistry of the water, temperature of the water, amount of wear in the pipes, how long the water stays in pipes (i.e., if the building was closed for a while and no water was run), and the amount of lead the water comes into contact with. To determine the source of lead in drinking water, specific sampling methods and onsite observations are used by experts during their assessment. Once the source has been identified, short- term and long-term solutions to the facility can be recommended by DPH.

Public water systems are required to sample for lead and copper in accordance with EPA's Lead and Copper Rule (LCR). All sampling results, including exceedances are reported on their Consumer Confidence Reports which are distributed annually to consumers within public water systems' jurisdictions. Any system exceedances are addressed per the LCR, typically through actions such as public education, treatment called corrosion control, and lead service line replacement. As a result, water coming from the public water system is likely not a significant source of lead in drinking water and has entered the system through other avenues, i.e. lead service lines, internal plumbing, or individual fixtures.

Actions to Reduce Lead in Drinking Water

Short-term

- Clean the faucet aerator
- Develop and implement a flushing program
- Install a point-of-use filter
- Temporarily shut off faucet or valve if site is used for consumption

Long-term

- Replace the fountain/fixture
- Replace pipes or plumbing containing lead/lead solder
- Remove lead service lines

Resources

- CDC "Sources of Lead: Water" <http://www.cdc.gov/nceh/lead/tips/water.htm>
- EPA "3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities" <https://www.epa.gov/system/files/documents/2021-07/epa-3ts-guidance-document-english.pdf>
- EPA "Basic Information about Lead in Drinking Water" <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>