

Leon County Science Advisory Committee

Revised lead statement: June 1, 2018

HOW DOES LEAD GET INTO OUR DRINKING WATER?

In Leon County, lead (Pb) occurs naturally at very low levels in the ground water that the City of Tallahassee and Talquin Electric Cooperative use as our water supply (the Floridan Aquifer). However, lead can still get into drinking water through contact with pipe and plumbing components that contain lead, such as lead and galvanized water service pipes, lead-brass alloy plumbing fixtures, and lead solder joints in copper plumbing. The more time the lead and water make contact, the more lead that can be dissolved. This happens when water sits unused in the plumbing overnight or over the weekend (as can often occur with homes, day-care centers, schools, office buildings, and businesses). In addition, small particles rich in lead can slough off from pipes and fittings into your drinking water or get trapped on the faucet aerator screen.

WHY IS THERE LEAD IN MY PLUMBING?

Lead was commonly used in pipes and plumbing parts until the 1950's. After that time, lead solder was often used as a pipe joint sealant until its use was severely restricted in 1986. Before 2014, plumbing fixtures classified as "lead-free" could still contain as much as 8% lead. In 2014, the definition of "lead-free" was revised to require less than 0.25% lead for the wetted surface of pipes, fittings, and plumbing fixtures. Despite this "lead free " classification, even the most modern plumbing components can still leach dissolved lead and release small, lead-rich particles.

HOW DOES LEAD AFFECT CHILDREN?

The US EPA and the Centers for Disease Control and Prevention (CDC) agree that there is no known safe level of lead exposure or for lead in a child's blood. Lead exposure in children is associated with intellectual deficits (6 IQ points for blood lead levels of 100 ppb – parts per billion). One type of ADHD (Combined / Inattentive / Hyperactive-Impulsive) has been associated with children's blood lead levels less than 100 ppb. Currently, the CDC defines the "level of concern" for lead in children's blood at 50 ppb. For your information, 50 ppb means 50 parts per billion and is the same as 50 millionths of a gram of lead in a liter of water (50µg/L) or 5 micrograms of lead in a deciliter of blood (5 µg/dL), and is equivalent to one cup of water in an Olympic sized swimming pool.

Lead testing is not part of a routine pediatric check-up so parents need to ask their provider to test their children's blood for lead. In Florida, Medicaid eligible children are required to be tested at 12 and 24 months of age and between 36 and 72 months if not previously tested. If the results show greater than 5 micrograms per deciliter (5 µg/dL = 50 ppb), you should take additional steps to lower your children's exposure to lead

(<https://www.cdc.gov/nceh/lead/tips.htm>).

WHAT STEPS CAN I TAKE TO PREVENT LEAD EXPOSURE?

The American Academy of Pediatricians recommends that drinking water have less than 1 ppb lead. If you want to reduce the potential for lead exposure for you and your family, you can take the following measures to significantly reduce the risk of exposure to lead in drinking water:

1. Install point-of-use water filters on drinking water faucets that remove dissolved lead to less than 1 ppb. These filters also remove many other contaminants as well as the lead-containing particles that can slough off even the most modern pipes and plumbing. They are relatively inexpensive, and should be used, especially in older homes, day-care centers, and schools. Filters that comply with the National Sanitation Foundation's lead removal standards are currently listed as "NSF/ANSI 53 certified." <http://www.nsf.org/newsroom/nsf-international-publishes-consumer-guide-to-nsf-certified-water-filtratio>
2. If you cannot afford NSF/ANSI 53 certified water filters for your drinking water faucets:
 - Drink and cook with water from the cold tap only because hot water can dissolve lead from your pipes and fixtures more quickly than cold water. Also, lead does not absorb through the skin so showering or bathing does not pose a risk.
 - Flush your faucets for 30-60 seconds before using water for drinking or cooking. This is particularly important after prolonged periods (six hours or longer) of limited or no use. The fresh water will not have had time to dissolve a lot of lead from your plumbing.
 - Keep your faucet aerator screens cleaned out.

To learn how you can protect your family from the risks associated with lead exposure, visit the following online resources:

<http://www.cdc.gov/nceh/lead/tips/water.htm>

<https://www.healthychildren.org/English/safety-prevention/at-home/Pages/Lead-in-Tap-Water-Household-Plumbing.aspx>

<http://www.floridahealth.gov/environmental-health/lead-poisoning/index.html>

<https://www.epa.gov/dwreginfo/3ts-reducing-lead-drinking-water-schools-and-child-care-facilities>

<https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=8>

To learn what Leon County Schools are doing about lead in drinking water:

<https://www.leonschools.net/waterquality>

To learn more about the City of Tallahassee's Drinking Water Quality, visit:

<http://www.talgov.com/uploads/public/documents/you/learn/library/documents/wqr.pdf>

or contact Mr. David Roberts, Manager-Water Operations at 850-891-1228 or David.roberts@talgov.com