

FACT SHEET

MODEL STATE LEGISLATION

GET THE LEAD OUT OF SCHOOL DRINKING WATER ACT: *FILTER FIRST, THEN TEST*

JUST THE FACTS

- Lead is a poisonous heavy metal that can cause irreversible damage to children and fetuses.
- There is no safe level of lead exposure.
- Federal law allows drinking water fixtures and plumbing to contain lead.
- Schools that have tested for lead in drinking water often find it in high concentrations, and lead levels at the same fountain can change dramatically depending on when and how the water is tested.
- Certified filters effectively remove lead when they are installed and maintained properly.



LEAD IS PRESENT IN SCHOOL DRINKING WATER

Lead is a poisonous heavy metal that can affect almost every organ and system in the human body, often irreversibly. Children and pregnant women are particularly vulnerable. Older plumbing fixtures, fittings, pipes, and solder contain high amounts of lead, which can leach into drinking water. Troublingly, many schools and day-care facilities are housed in buildings that contain old plumbing.

And even new plumbing is not completely lead free. Prior to 1986, there were no restrictions on lead content in plumbing products. In 1986 Congress amended the federal Safe Drinking Water Act, defining “lead free” to mean that solder and flux could contain no more than 0.2 percent lead, and plumbing pipes, pipe fittings, plumbing fittings, and fixtures could contain no more than 8 percent lead.¹ Congress amended the law again in 2011 by lowering the maximum lead content of the latter components from 8 percent to a weighted average of 0.25 percent and maintained the 0.2 percent limit on solder and flux.²

WHY WE NEED TO REMOVE LEAD FROM DRINKING WATER IN SCHOOLS

Outside of the home, children spend most of their time at school, making it especially important to address environmental hazards in school buildings. From the Pledge of Allegiance, through the school day, to after-school activities, children can spend more than 35 hours per week in a school building. Staff spend just as many hours there and are exposed to the same lead hazards. Women make up a majority of the staff at schools and child-care facilities, and pregnant staff place their fetuses at risk.

Young children and fetuses are the most susceptible to the adverse effects of lead. Even at very low levels once considered safe, lead can cause serious, irreversible damage to developing brains and nervous systems of babies and young children.³ Lead can decrease a child’s cognitive capacity, cause behavior problems, and limit the ability to concentrate—all of which, in turn, affect the ability to learn in school.⁴ Children with significant lead exposure are less likely to graduate from high school and more prone to delinquency, teen pregnancy, violent crime, and incarceration.⁵

Lead can cross the placental barrier of a pregnant woman into the womb and harm the fetus.⁶ As the Centers for Disease Control and Prevention (CDC) notes, “Even low-level lead exposures in developing babies have been found to affect behavior and intelligence. Lead exposure can cause miscarriage, stillbirths, and infertility (in both men and women).”⁷

THERE IS NO SAFE LEVEL OF LEAD

The [CDC](#), the [American Academy of Pediatrics](#), and the [World Health Organization](#) all state that there is no safe level of lead exposure.⁸

The [American Academy of Pediatrics](#) has set the maximum recommended level for lead in school drinking water at one part per billion (1 ppb).⁹ This is not because lead at this level is considered safe, but simply because this is the lowest level at which lead can be reliably detected by a certified lab test.

FILTER FIRST, THEN TEST

The best way for a school to protect children from lead in drinking water is to ***Filter First, Then Test***. Testing programs around the country demonstrate that lead is prevalent in drinking water in schools, and that the levels can change significantly from day to day.¹⁰ In other words, we know that lead is present in unfiltered drinking water.

We also know that filtration effectively removes lead when the filter is certified by NSF International or the Water Quality Association and is properly installed and maintained. There is no benefit to waiting for a school to test its drinking water for lead. Schools should immediately install filters at school kitchen faucets and designated hydration stations, which is a bottle filling water fountain (1 station per 100 students/staff). Testing would only need to be conducted at these drinking water outlets to ensure that the filters are working properly. This is much smarter than embarking on a lengthy testing process that will only prove what we already know to be true.

The District of Columbia has already taken the necessary step to require filtration first and then testing. Other cities and states should follow suit with the sequence that best protects our children.



ENDNOTES

- 1 See U.S. Environmental Protection Agency (hereinafter EPA), “Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water,” last updated July 11, 2017, <https://www.epa.gov/dwstandardsregulations/use-lead-free-pipes-fittings-fixtures-solder-and-flux-drinking-water>.
- 2 Ibid.
- 3 Advisory Committee on Childhood Lead Poisoning Prevention, Centers for Disease Control and Prevention (hereinafter CDC), *Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention*, January 4, 2012, www.cdc.gov/nceh/lead/acclpp/final_document_030712.pdf.
- 4 Ibid.
- 5 Ibid. See also J. P. Wright et al., “Association of Prenatal and Childhood Blood Lead Concentrations with Criminal Arrests in Early Adulthood,” *PLoS Med.* 5, no. 5 (May 27, 2008): e101, www.ncbi.nlm.nih.gov/pmc/articles/PMC2689664/. S. D. Lane et al., “Environmental Injustice: Childhood Lead Poisoning, Teen Pregnancy, and Tobacco,” *J Adolesc Health* 42, no. 1 (January 2008): 43-9. R. Nevin, “How Lead Exposure Relates to Temporal Changes in IQ, Violent Crime, and Unwed Pregnancy,” *Environ Res.* 83, no. 1 (May 2000): 1-22. R. Levin, “Reducing Lead in Drinking Water,” EPA, December 1986, <https://nepis.epa.gov/Exe/ZyPDF.cgi/2000911C.PDF?Dockey=2000911C.PDF>.
- 6 CDC, *Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women*, November 2010, www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf.
- 7 CDC, “Lead: Information for Workers—Health Problems Caused by Lead,” last updated September 2013, www.cdc.gov/niosh/topics/lead/health.html.
- 8 CDC, “Blood Lead Levels in Children,” last reviewed July 30, 2019, https://www.cdc.gov/nceh/lead/acclpp/blood_lead_levels.htm. American Academy of Pediatrics, “Lead Exposure in Children,” 2016, <https://www.aap.org/en-us/advocacy-and-policy/aap-healthinitiatives/lead-exposure/Pages/Lead-Exposure-in-Children.aspx>. World Health Organization, “Lead Poisoning and Health,” August 23, 2018, <https://www.who.int/en/news-room/fact-sheets/detail/leadpoisoning-and-health>.
- 9 American Academy of Pediatrics, “With No Amount of Lead Exposure Safe for Children, American Academy of Pediatrics Calls for Stricter Regulations,” June 20, 2016, <https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/With-NoAmount-of-Lead-Exposure-Safe-for-Children,-American-Academy-of-Pediatrics-Calls-For-Stricter-Regulations.aspx>.
- 10 G. R. Boyd et al., “Lead Release From New End-Use Plumbing Components in Seattle Public Schools,” *American Water Works Association Journal* 100, no. 3 (March 2008): 105-114. Y. Lambrinidou, S. Triantafyllidou, and M. Edwards, “Failing Our Children: Lead in U.S. School Drinking Water,” *New Solutions* 20, no. 1 (February 2010): 25-47, <https://journals.sagepub.com/doi/10.2190/NS.022010eov>.