



Unleaded Education

Ensuring clean water for Houston ISD
January 2022



Our children need safe drinking water — especially at school, where they go to learn and play each day. Unfortunately, our recent review of available data shows that water in Houston schools continues to be contaminated with lead.

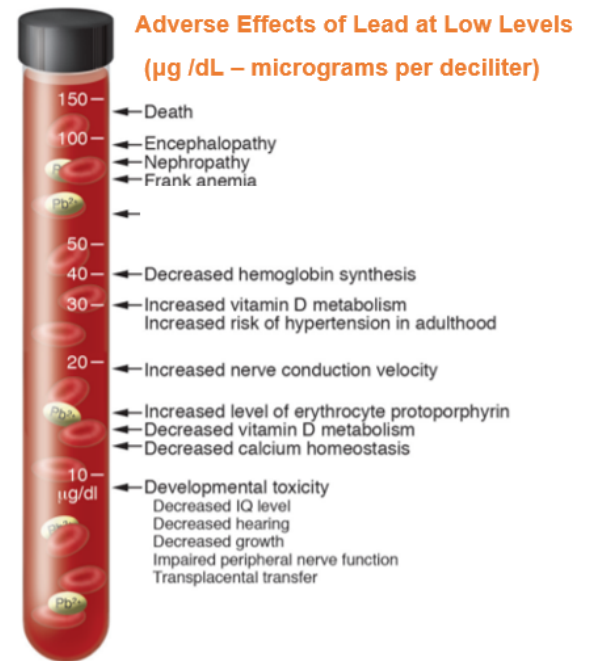
Lead threatens children's health

Lead threatens our kids' health, especially how they learn, grow and behave. "In children, low levels of [lead] 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,” according to the U.S. Environmental Protection Agency (EPA)¹. Moreover, medical researchers estimate that more than 23 million children in America today risk losing IQ points due to low levels of lead². They have also linked low levels of lead to ADHD, antisocial behaviors and depression.

Experts agree there is no safe level of lead³. Lead is so toxic even at low levels that the EPA has set a goal of having no lead in drinking water⁴. The American Academy of Pediatrics says lead in schools’ drinking water should not exceed 1 part per billion⁵. Water lead levels accumulate leading to elevated blood lead levels ($\mu\text{g}/\text{dL}$ – micrograms per deciliter).

The water crisis in Flint, Michigan, prompted many around the country to wonder whether lead was in their local drinking water as well. While at the time no state or federal law required it, during the 2016-2017 school year, Houston Independent School District (HISD) voluntarily administered testing of drinking water at most schools⁶ to determine the potential for lead exposure in Houston schools.



Lead pervasive in Houston schools

For this analysis, TexPIRG, Environment Texas, and COCO examined over 250 individual school testing reports for elementary, middle, and high schools posted to the [HISD website](#). HISD collected samples from all water fountains and one component in all kitchens. All water sources reported were included in our analysis. Post-repair test results were used whenever lead abatement was performed. Incomplete or partial reports were not included in our results.

The results were alarming, with [lead found in at least one water tap at 84% of schools tested](#). While HISD did remediate taps at 34 schools with exceedingly high levels of lead, our

¹ Basic Information about Lead in Drinking Water, U.S. Environmental Protection Agency available at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

² American Academy of Pediatrics, Prevention of Childhood Lead Toxicity, July 2016, page 4

³ Lead and Copper Rule: A Quick Reference Guide, U.S. Environmental Protection Agency available at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=60001N8P.txt>

⁴ United States EPA, “3Ts for Reducing Lead in Drinking Water in Schools and Child Care Centers,” October 2018. Available at https://www.epa.gov/sites/production/files/2018-09/documents/final_revised_3ts_manual_508.pdf

⁵ American Academy of Pediatrics, Prevention of Childhood Lead Toxicity, (policy statement), July 2016, page 11, available at <http://pediatrics.aappublications.org/content/pediatrics/early/2016/06/16/peds.2016-1493.full.pdf>

⁶ HISD tested only schools that receive water from the City of Houston municipal supply and not Energized For Excellence Academy MS, Energized for Excellence ECC, Energized for Excellence EL, Energized for STEM Academy West, Energized for STEM Academy Central, Mount Carmel Academy, Middle College at HCC Fraga, Mark White Elementary, Secondary DAEP, and Harper DAEP

December 2021 review of data on the [HISD website for lead testing](#) shows no action taken to address the pervasive lower levels of lead in schools' water across the district.

Lead Contamination at HISD Schools by Tap

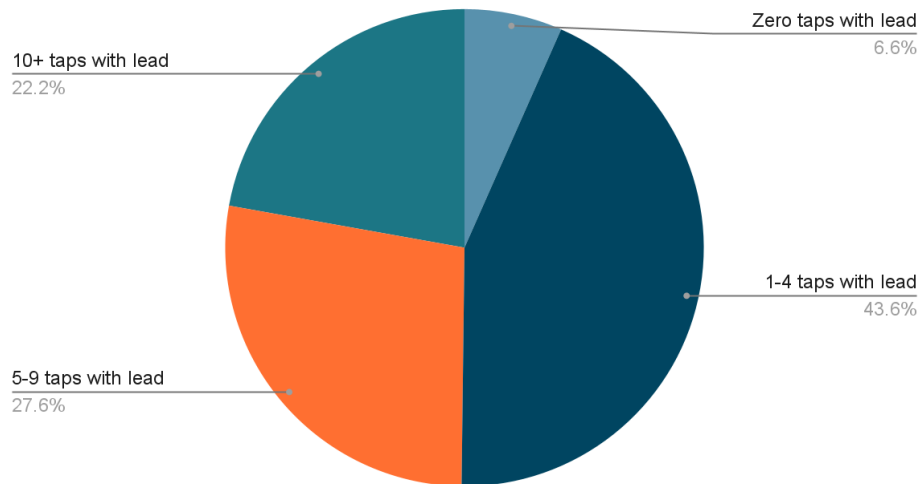


Figure 1

We found that:

- 216 schools out of the 257 tested by the district had at least one tap where lead was detected.
- Over one third of taps tested were positive for lead contamination. Distribution shown in Figure 2.
- 57 schools in the district have 10 or more taps with traces of lead above 1 ppb. Milne Elementary showed lead contamination in 44 of their 50 tested water sources, the most in the district. Figure 1 shows that only 6.6% of HISD schools have absolutely zero contaminated taps.
- There are five water fountains at Golfcrest Elementary School that tested at levels well above 20 ppb on the [initial testing report](#) on November 16, 2016. After repairs and a re-test report were completed on February 24, 2017, three of these fountains continued to show lead levels above 20 ppb even after being fixed. There is no public evidence of further repairs.
- Milne ES showed lead contamination in 44 of their 50 tested water sources.

Clearly, lead contamination remains a widespread problem at HISD schools. And in some ways, that is not surprising: as long as schools have lead in their water delivery systems - without filters - our kids' water remains at risk.

Contaminated Taps in HISD

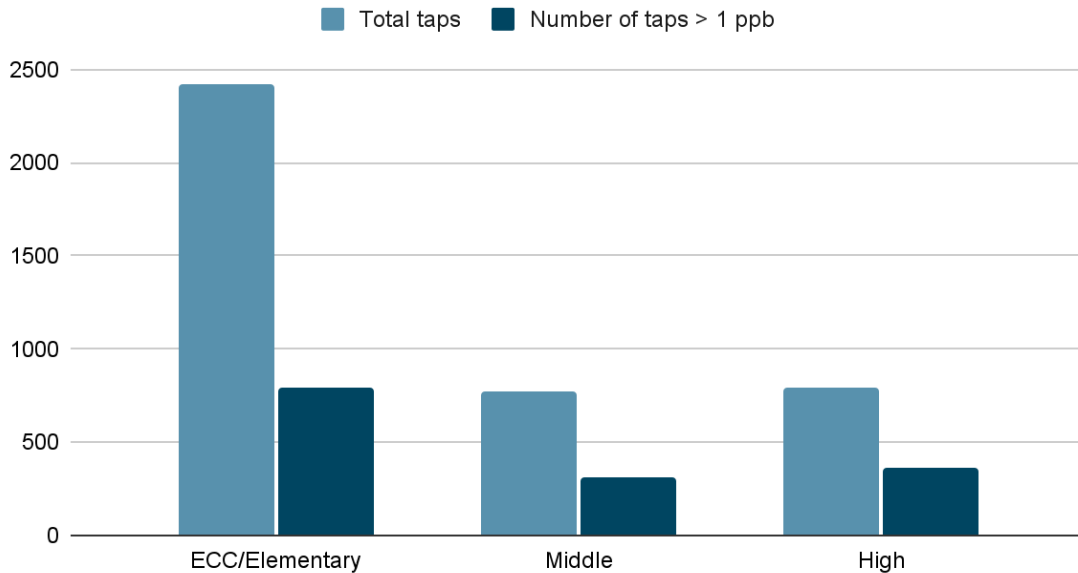


Figure 2

Filtering out contaminated water

To ensure safe drinking water at school, [HISD should proactively replace all fountains with water bottle/hydration stations equipped with filters that remove lead](#). This solution eliminates one common source of lead (fountains) and captures lead coming from plumbing or pipes. Moreover, kids tend to drink more water when they have access to hydration stations, so there's an added health benefit to this solution. To ensure adequate access to water, these hydration stations should be installed at a ratio of 1 per 100 students and staff. They should have filters certified to meet NSF/ANSI standards 53 for lead reduction and 42 for fine particulate, and indicator lights so parents and teachers can see when the filters need to be replaced. HISD should also adopt 1 part per billion (ppb) standard for lead in schools' drinking water, consistent with recommendations of the American Academy of Pediatrics, require annual testing at all water outlets used for drinking or cooking, and immediately remove those sources from service where testing indicates lead in the water. Finally, HISD should disclose all available information about lead in water infrastructure, test results and remediation plans/progress both onsite and online.

The good news is that HISD has ample resources to implement these solutions. For example, installing water bottle/hydration stations with filter systems would cost a small fraction of the \$1.1 billion that HISD has received in Elementary and Secondary School Emergency Relief (ESSER) funding. Hydration stations with filters cost roughly \$3,000 (including installation) and yearly upkeep totalling \$580 (includes filter replacement and sampling each year to verify performance), based on the experience of school districts in [Michigan](#) and [Massachusetts](#). With 197,000 students in HISD, the cost of filtered water bottle filling stations would be \$7.1 million - less than 1 percent of the district's ESSER funding.

Other funding is also available to the district. The new federal infrastructure investment law includes \$200 million for schools to conduct lead reduction efforts. In addition, HISD is looking at having another [bond election soon](#), which would provide for additional funding. \$7.1 million is just a fraction of the funds HISD has available and well worth the expense given the enormous harm lead causes to children’s health.

HISD deserves credit for testing the water at most of its schools long before the new federal Lead & Copper Rule set any requirement to do so. But testing alone does not make our children’s water safer. Since 2016-17, the data have shown widespread lead contamination of Houston school’s water. The scale of the problem demands preventive action at every tap used for cooking or drinking at our city’s schools.

The following schools reported 10 or more water sources with lead. The names of the schools were as reported by [HISD lead testing results](#):

School	Number of sources with lead
Ashford ES	12
Attucks MS	23
Bell ES	12
Bellaire HS	17
Black MS	10
Bonham ES	13
Breaburn ES	14
Brookline ES	10
Burbank ES	11
Bush ES	13
C. Martinez ES	23
Chavez HS	17
De Zavala ES	12
Deady MS	10
Edison MS	21
Energy Institute HS	13
Fleming MS	16
Fondren MS	16
Forest Brook MS	17
Garcia ES	17
Gregg ES	12
Halpin ES	19

Harris, R.P. ES	10
Hartsfield ES	15
Henderson, J.P. ES	11
Herrera ES	17
High School for Law And Justice	13
HSPVA	12
Jones Futures Academy	16
Jordan HS	10
Lamar HS	18
Lanier MS	10
Lyons ES	16
Madison HS	24
McReynolds MS	10
Meyerland MS	18
Milby HS	10
Milne ES	44
North Forest HS	17
Oak Forest ES	18
Poe ES	22
Revere MS	13
Rogers, T.H.	11
Sam Houston MSTC	25
Scarborough HS	15
Sharpstown HS	13
Stevens ES	12
Terrel MS	12
The Rice School/La Escuela Rice	10
Thomas MS	19
Valley West ES	12
Washington HS	13
Wesley ES	13
Westbury HS	17
Wisdom HS	11
Yates HS	20
Young Women's College Preparatory	13