



# Lead in School Drinking Water: Guide for Parents and Schools

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## The basics: children's environmental health and lead in school water

- Pediatricians know that a safe and healthy environment is a foundation for children's health (AAP, 2016).
- Children are very vulnerable to environmental contaminants (AAP, 2016). Their bodies are still developing and they eat, drink, and breathe more per pound of body weight than adults. They are exposed to more environmental threats and are likely to be less aware of how to protect themselves.
- Lead is one of the most dangerous threats to children's environments, including school and childcare, where they spend many hours each week.
- Exposure to lead, even at very low levels, can permanently harm children's health, learning, and behavior.
- Doctors, government, and schools must prevent exposure to lead, identify and treat lead poisoning, and press for public health measures to fight the problem.

***No amount of lead is safe for children!***

## What is lead? Where does it come from?

- Lead is a naturally occurring element found in small amounts in the earth's crust.
- Lead can enter people's bodies from the food they eat, the air they breathe, and the water they drink.
- Exposure to lead can result in serious damage to the brain, nervous system, and red blood cells.
- In schools, lead contamination of drinking water comes from lead pipes and solder, faucets, valves, and other components made of brass. Lead was sometimes also used to line older water coolers and bubblers used in schools and offices.
- The safe amount of lead for children is ZERO.

## Why should parents care about lead in school drinking water?

- Children spend more time at school and childcare than at any place other than home.
- Lead in water is a widespread problem, but many schools have never been required to address it.
- Testing at the tap in schools in several states found lead in all schools, from low to very high levels.
- The poorest schools in the worst physical condition are likely to have the most lead (in paint and water) and are also likely to enroll the poorest and most vulnerable children.

**Even if plumbing is labeled "lead safe," it can still contain lead.**

**The US Environmental Protection Agency's "lead-free" standard allows some lead to be present in fixtures. Because of this, all schools and all homes, even the newest, will contain some lead.**

## What are the health effects of lead on children and pregnant women?

- **Children**
  - Behavior and learning problems
  - Hyperactivity and lower IQ
  - Slowed growth
  - Hearing problems
  - Anemia (low levels of red blood cells)
  - In rare cases: seizures, coma, and sometimes even death
- **Pregnant women**
  - Risk for miscarriage
  - Risk for premature birth
  - Damage to the baby's brain, kidneys, and nervous system
  - Future learning or behavior problems in the child

## What should schools and parents do to eliminate lead in school/childcare drinking water?

We need tough, enforceable regulations for the amount of lead in school/childcare drinking water: just one part per billion. In the meantime, here are ways to improve protections for kids.

- **Everyone: find out if your state requires schools or childcare to test for lead in drinking water and whether the state helps cover the costs.**
  - As of spring 2019, nine states and the District of Columbia required at least one round of testing at the tap in public schools; most states help cover some of the costs, either as an ongoing testing program or a one-time requirement: Illinois, Maryland, Minnesota, New Hampshire, New Jersey, New York, Tennessee, Oregon, Virginia, and the District of Columbia.
- **Parents: test your tap water at home.**
  - Install filters certified to remove lead; maintain filters.
  - Ask your school or childcare facility to test at the tap for lead.
  - If water has already been tested, ask how free potable water is provided; then ask to see the test-at-the tap results and ask how lead will be remediated.
  - Say thank you!
- **Schools: test right and provide free, clean water!**
  - State codes set standards for the number of water outlets in schools. State education agencies or state/city school construction authorities should review their policies on the number of water outlets (taps) or “water/hydration stations” per occupant required in schools. Are there enough taps or stations for the actual number of occupants, are more needed, or has enrollment dropped, so fewer taps/stations are needed?
  - State (or city) health and education agencies should jointly provide free training to school staff responsible for facility maintenance and provide sample communication materials to local schools.
  - Schools should consult with or use local water utilities or health agencies to ensure that qualified experts conduct the water sampling and send samples to qualified laboratories.
  - Schools should inventory all necessary taps/stations and assign unique codes to each, so that when testing is done, test results can be matched to each unit.
  - Schools should install filters certified to remove lead on all taps to be tested; water stations will also need testing.
  - Schools should receive, record, and then evaluate the results of testing with health agencies or water utilities.
    - Are more remediation steps and retesting recommended?
    - Extremely high levels of lead at one outlet may mean that the device is banned by EPA and has been recalled by the manufacturer.

- Schools should report their test results on their websites and to state agencies, parents, staff, and communities, as well as their plans for frequent maintenance on filters and annual retesting. A public meeting for parents and the community is useful to explain the steps and the typical timeline needed to install filters and test at the tap.
  - School facility directors/head custodians and school business officials should consider sharing information on new EPA certified “lead-free” fixtures they install that still test high for lead in water.
- **Everyone: parents, health care providers, schools, and communities**
- Press your education departments and state legislatures to fund annual testing of school drinking water, to support the use of “lead-free” plumbing replacements and repairs and water filtration systems.
  - Ask your city or state procurement (purchasing) agency to include lead-free fixtures and filters certified to remove lead in their procurement contracts. Public agencies and public and private schools can buy from state contract. Bulk purchases reduce per-unit costs.

***Resources for this guide:***

1. US EPA, *3Ts (Test, Tell, Take Action) for Reducing Lead in Drinking Water in Schools and Child Care Facilities*. For list of banned leaded water coolers, see p 55. Accessed June 28, 2019. [https://www.epa.gov/sites/production/files/2018-09/documents/final\\_revised\\_3ts\\_manual\\_508.pdf](https://www.epa.gov/sites/production/files/2018-09/documents/final_revised_3ts_manual_508.pdf)
2. Natural Resources Defense Council, *Get the Lead Out of School Drinking Water Act, a state model bill*. Accessed June 28, 2019, <https://www.nrdc.org/sites/default/files/get-lead-out-school-drinking-water-act-model-legislation.pdf>
3. Healthy Schools Network, Children’s Environmental Health Network, Learning Disabilities Association of America, *Eliminating Lead Risks in Schools and Child Care Facilities*, 2017 conference report. Accessed June 28, 2019. [http://www.healthyschools.org/data/files/eliminating\\_lead\\_in\\_schools\\_and\\_childcare.pdf](http://www.healthyschools.org/data/files/eliminating_lead_in_schools_and_childcare.pdf)
4. American Academy of Pediatrics, *With No Amount of Lead Exposure Safe for Children, American Academy of Pediatrics Calls for Stricter Regulations*. Press release. Accessed June 28, 2019. <https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/With-No-Amount-of-Lead-Exposure-Safe-for-Children,-American-Academy-of-Pediatrics-Calls-For-Stricter-Regulations.aspx>
5. Healthy Schools Network, *Chart of States Acting on Drinking Water*. Accessed June 28, 2019, <https://drive.google.com/file/d/117s2hZzYTET1jqyMfBy3AI4xF5FrLiUR/view>
6. Centers for Disease Control and Prevention, *Lead: Pregnant Women*. Accessed June 29, 2019. <https://www.cdc.gov/nceh/lead/tips/pregnant.htm>
7. Occupational Health and Safety Administration, *Safety and Health Topic: Lead*. Accessed June 29, 2019. <https://www.osha.gov/SLTC/lead/>
8. US EPA, Drinking water filters certified to remove lead. Accessed July 12, 2019. [https://www.epa.gov/sites/production/files/2018-12/documents/consumer\\_tool\\_for\\_identifying\\_drinking\\_water\\_filters\\_certified\\_to\\_reduce\\_lead.pdf](https://www.epa.gov/sites/production/files/2018-12/documents/consumer_tool_for_identifying_drinking_water_filters_certified_to_reduce_lead.pdf)
9. US EPA, Banned Water Coolers, [https://www.epa.gov/sites/production/files/2018-09/documents/module\\_4\\_leaded\\_water\\_coolers\\_banned\\_in\\_1988\\_508.pdf](https://www.epa.gov/sites/production/files/2018-09/documents/module_4_leaded_water_coolers_banned_in_1988_508.pdf)