



New Jersey
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Safe, secure jobs and a healthy, sustainable environment

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Get the Lead Out of Schools

Introduction

Schools can have two lead problems – lead in drinking water and lead in paint. Staff and students can be exposed to lead from both, giving them a double dose of the toxic metal. Lead paint dust is believed responsible for most lead poisoning, and lead in drinking water definitely contributes cumulatively. Poisoning can be caused by just a microscopic bit of lead paint dust, which may be easily inhaled or accidentally ingested. School districts, state and federal agencies must do more to address both lead problems. Legislators must ensure they have the staff and funds to do so.

No amount of lead exposure, at any age or any level, is considered safe. Lead is most damaging during pregnancy and the first few years of life, when it can disrupt brain development and lead to lifelong learning and behavior problems. Young children, and school staff and older students who are pregnant or nursing are most vulnerable. Long term exposure to lead at very low levels is associated with decreased hearing, lower intelligence, hyperactivity, attention deficits, and problems in school. There are no noticeable early warning signs. Medium levels can cause stomach cramps, vomiting, weight loss, fatigue, and anemia. High levels can cause seizures, severe brain damage, coma, and even death – but is quite rare today in the U.S.

Blood lead level (BLL) testing results compiled by the NJ Department of Health (NJDOH) in 2014 showed that eleven cities and two counties in New Jersey had high numbers of children under age 6 with BLLs above the standard used by the federal Centers for Disease Control (CDC). CDC uses 5 milligrams per deciliter (5ug/dL), half of the 10 ug/dL standard used in New Jersey, although Governor Christie recently indicated a willingness to align the standards.

Lead poisoning still threatens families, particularly children living in urban areas with older infrastructure. The cities and counties in NJ with the most lead poisoned children in 2014 were: Atlantic City, East Orange, Elizabeth, Irvington, Jersey City, New Brunswick, Newark, Passaic, Paterson, Plainfield, and Trenton, as well as Cumberland and Salem Counties.

Lead in Drinking Water

The Newark Public Schools (NPS) released results of lead in drinking water sampling in March 2016, revealing that levels above the action level¹ of 15 parts per billion (ppb) in 12 percent (250 of 2,067) of water samples in Newark's public school buildings from 2012 to 2016. Sampling locations were not always identified, but many were no doubt from water fountains and faucets used for food preparation. NPS has now [released data](#) back to 2010 along with a sampling and remediation [plan](#). They have not explained why they still have problems, despite testing and remediating for more than ten years.

Water is usually lead-free when it leaves the water treatment plant, but can pick up the toxic metal from lead pipes and fixtures containing lead or joined by lead solder. Corrosive water can increase the amount of lead that gets into drinking water, as can grounding of electrical wires to water pipes. Corrosive water was the cause of the lead crisis in Flint Michigan; we don't know yet if it played a role in Newark.

We don't know how many other NJ school districts have similar problems with high lead levels in drinking water or even whether or not they conduct testing. Since Newark's results hit the news, other districts have begun to release past testing results and conduct new testing. We have been reminded that Camden and Jersey City have long been distributing bottled water to students over concerns about lead levels. In late April, the NJ Department of Environmental Protection (DEP) created a [webpage](#) with guidance for school districts. Lead in water is impossible to detect by sight, smell, or taste, so it must be

¹ The action level is a trigger point at which corrective action should be taken. 15 ppb is not a safe level, since no amount of lead exposure, at any age or any level, is considered safe. Newark is using 15.5 ppb to interpret their sampling results.

measured. While public water systems perform their own testing, this does not reflect what comes out of the fountain or faucet at school. EPA has for many years encouraged schools to voluntarily test for lead in water and provides [detailed guidance](#) on how to do so.

Lead in paint

Lead-based paint (LBP) was banned from use in schools in 1978. LBP is still present on interior and exterior painted walls, ceilings, floors, doors, windows, woodwork, handrails, radiators, fences, roofing, gutters, downspouts, and playground equipment in virtually all schools built before 1978. If it is blistering, chipping, peeling, cracking, or chalking from age, weather, or water damage, it can expose students and staff, especially custodial and maintenance workers. Breathing and accidentally ingesting lead paint dust is responsible for most lead poisoning, with an estimated 10 to 20 percent of lead exposure coming from drinking water. Schools districts must ensure that all LBP is identified and properly maintained and managed.

Immediate action steps for schools

Schools should immediately implement the 3 Ts for reducing lead in drinking water, in accordance with the EPA guidance document summarized [here](#):

- **Training** to raise awareness of lead in drinking water, identify potential areas where elevated lead may occur, and establish a testing plan to identify and prioritize testing locations.
- **Testing** drinking water in schools to identify potential problems and take corrective actions as necessary. *First draw* samples should be taken at every water source in the school.
- **Telling** staff, students, parents, and the larger community about monitoring programs, potential risks, the results of testing, and remediation actions.

12 Steps for Statewide Action

Lead in Water Testing in Schools

1. School districts release all 2012-2016 testing results in real time. Clearly identify the school, sample source and sampling method when publishing results.
2. All school districts conduct testing in **all** schools at least annually.
 - a. NJDEP provide training to assure proper sample collection, analysis, and interpretation.
3. NJDEP assess and publish the status of lead drinking water monitoring and remediation efforts in all NJ school districts, starting with the cities and counties with highest blood lead levels in children.
4. Utilize testing results to increase the number of lead-free school facilities. Replace lead infrastructure such as water fountains with lead tanks or parts, lead pipes, brass faucets, etc.
5. Incorporate and track lead issues in long-range facility plans submitted to DOE/SDA, and replace impacted underground water infrastructure when SDA capital projects commence.
6. Require water utilities to receive written approval from NJDEP before they make changes to the chemical additives in the water supply, which may impact water quality and/or public health.
7. Require water utilities to notify the public and school administrators if there is an increase in the corrosiveness of local water supplies so that retesting may be conducted immediately.

Other Approaches for Addressing Lead Poisoning in Children

8. Fully allocate budgeted amount to the Lead Hazard Control Assistance Fund on an annual basis.
9. Require healthcare providers to test older children for blood lead levels. Right now only children ages 1 and 2 are tested. Add testing at the beginning of elementary, middle, and high school.
10. Direct the NJDOH to ensure that **all** children under age six are actually tested, and align their blood lead level standard with the one used by the federal Centers for Disease Control: 5 milligrams per deciliter (5ug/dL).
11. Reactivate the Interagency Task Force on the Prevention of Lead Poisoning and task with developing an action plan to reduce the amount of lead in our environment.
12. Educate school staff, students and families on the effects of lead exposure on the developing brain of young children and how they can participate in efforts to achieve **prevention** in their communities.