

Science Says

Science Facts & Analysis from Science for Georgia

Lead in the Water of School & Childcare Centers

Georgia was [one of 22 states to receive an “F” for their handling of lead in school drinking water.](#)

Problem

Lead is in the drinking water in our state’s schools. For example, in 2016, over half of tested Atlanta Public Schools [had lead levels above 15 \(parts per billion\) ppb](#) in their water. [The State Board of Education has hired Research Triangle Institute for \\$980,000 to test in 800 schools statewide.](#)

There are no [federal standards to require testing](#) or [mandatory remediation levels](#) for drinking water. It is up to Georgia to set regulations and standards for safe lead levels.

Without setting a standard for testing or when remediation must occur, close to \$1M will be spent on testing with no desired outcome or action.

Why lead is a problem

Lead causes [behavior and learning problems, lower IQ, hyperactivity, and hearing problems](#) in children. All of these symptoms have been [linked to lower success in school and increased aggression](#), leading to less success in life.

Recommended Policy Actions

1. Uniform standards for testing and specific regulations for safe levels, including designating when and how remediation must occur.
2. Funds to offset the cost of remediation including interim water filters and permanent pipe replacement or repair.
3. Transparent state-wide reporting system so that parents and caregivers know the testing and lead status of the water at their school or daycare facility.

https://cdn1.sph.harvard.edu/wp-content/uploads/sites/84/2019/01/Early-Adopters_State-Approaches-to-Testing-School-Drinking-Water-for-Lead-in-the-United-States_2019.pdf

<https://environmentamerica.org/feature/ame/get-lead-out-0>

<https://patch.com/georgia/atlanta/lead-tainted-water-schools-georgias-grade>

Facts & Analysis

Where does the lead come from?

Lead is leached into drinking water mainly from water pipes. People can also be exposed to lead via paint, dust, and soil. Lead has been removed from most products and infrastructure, but it was not [tightly regulated in plumbing until 1986 or banned completely in gasoline until 1996.](#)

What, if any, are the standards?

The EPA set a standard of [15 ppb](#) for lead in drinking water. The FDA set a standard of [5 ppb in bottled drinking water](#). The American Academy of Pediatrics recommends [1 ppb for children](#).

The 15 ppb rule is from the [Lead and Copper Rule \(LCR\)](#) which states that if lead concentration is over 15 ppb in over 10% of tested samples, water systems must take action. Schools and day care facilities are only regulated if subject to the National Primary Drinking Water Regulations.

In 2019, [25 states had set standards for lead in drinking water](#):

Remediation Level	Number of States
5 ppb	3 states
15 ppb	13 states
20 ppb	8 states
Other	1 state

The EPA has created [EPA's 3Ts – Testing, Training, and Taking Action](#) – which is a toolkit with recommended testing programs for schools and childcare programs.

What happens to children exposed to lead?

Lead exposure is more harmful for children than adults. They [absorb 4 to 5 times the amount as adults](#) do from the same source.

Lead causes [behavior and learning problems, lower IQ, hyperactivity, and hearing problems](#) in children. Recent studies have shown that children with these symptoms typically have [lower success in school and increased aggression, limiting future success](#).

What is a safe level of lead?

There is no safe level of lead, and there is conflicting guidance as to what standards to set.

Specific Policy Examples

In North Carolina, [HB 386](#), from the 2019 session, recommended the use of the [EPA's 3Ts for testing](#), set a limit of 5 ppb, and required immediate short-term remediation of access to clean water (via filters or bottled water), and long term remediation of identification and correction of the lead source. It established a fund to pay for testing and remediation.

[Looking at what has been done elsewhere](#), a suggested method may be:

Lead Level	Status	Recommended Remediation
0-5 ppb	Green	None
5-10 ppb	Yellow	Immediate notification and access to fresh water. Implementation of a timeline and plan to identify and remediate the source of lead.
Above 10 ppb	Red	Yellow AND placement at the top of the remediation list.

About Science for Georgia

Science for Georgia is a 501c3 dedicated to bridging the gap between scientists and the public through training, outreach opportunities, and direct contact with the public, policymakers, and the press. Science for Georgia highlights how science can impact people's lives and advocates for the responsible use of science in public policy.