



Frequently asked questions – Minneapolis Public Schools water safety

(Updated 9/9/2016)

How does lead get into the school's water?

According to the Minnesota Department of Health, lead in drinking water is primarily from materials and components associated with the water distribution system and plumbing. Lead is typically an endpoint problem, with the highest concentrations of lead near the tap. Lead may be present in various parts of the plumbing system such as lead solder, brass fixtures, and lead pipes. Lead is then leached into the water passing through the plumbing system.

The most common source of lead leaching is corrosion, a reaction between the water and lead pipes or solder. Dissolved oxygen, low pH, low mineral content and other water quality characteristics can affect the extent of corrosion. In addition, the amount of contact time between water and lead sources can affect the concentration of lead found in drinking water. The longer water remains standing in the plumbing system, the greater the potential for it to absorb lead. Additional factors such as water chemistry, temperature, and age of the plumbing materials can affect the amount of lead in the water.

Where does MPS get its water?

All of our water is sourced from the City of Minneapolis. The water provided from the city is all low lead, and Minneapolis controls the pH of water so it's noncorrosive. In addition, the city adds a corrosion inhibitor called ortho polyphosphate. As a result, Minneapolis' water is designed to form a thin scale inside pipes and fixtures to act as a barrier between the metal and the water we drink.

What does it mean to be "high lead"?

The [Environmental Protection Agency](#) and the [Minnesota Department of Health](#) (MDH) identify high lead as levels exceeding 15 parts per billion (ppb). For testing purposes, MDH requires schools to take action when lead levels exceed 20 ppb.

MPS has more than 40 buildings identified as needing mitigating action. We test water using MDH guidelines, including conducting tests on a first-draw basis. This means we collect on the weekend or first thing in the morning when lead levels are likely to be highest, because the longer water sits in piping, the more lead can seep into it.

How much lead is in water at schools identified as high lead?

The highest level we have tested is about 400 ppb and we take action at 20.

Is this comparable to lead levels in Flint, MI?

No. The lead levels in Flint, MI were more than 13,000 ppb.

What do you do to keep water safe?

We follow the [recommendations of the MDH](#). This includes conducting testing, implementing flushing protocols at sites identified as high lead and replacing fixtures and plumbing systems when possible. For example, when renovation projects occur, we see if it is possible to do a domestic water piping replacement project to remove issues. This was done at Webster Elementary, which now tests below the 20 ppb standard



What is “flushing”?

Flushing is the action recommended by the MDH to reduce the amount of lead in drinking water. If school sites test above the 20 ppb, even once, we implement a lead-water flushing program as recommended by the MDH.

Each morning, building engineers are responsible for turning on water throughout school for at least 10 mins to drain any standing water out of the system. With fresh water coming into the building and continued use throughout the day, lead levels are fine in the water.

How do you know protocols are followed?

Engineers are required to keep daily logs of building flushing. We also conduct random spot checks to ensure all protocols for keeping water safe are accurately followed.

Why haven't you been regularly testing water?

Last fall, we began regular testing for lead in our water. Prior to that, tests were not regularly conducted because they would have told us what we already know — a number of our buildings are high lead — and there was no reason to think it would change. We continually flushed those buildings when in use.

Since we began regular testing, a number of schools previously identified as high lead are now not. However, we continue the flushing program at those sites.

Where can I learn more?

The City of Minneapolis, the Minnesota Department of Health and the Environmental Protection Agency all have great resources.

- <http://www.minneapolismn.gov/publicworks/water/WCMSP-173109>
- <http://www.minneapolismn.gov/www/groups/public/@publicworks/documents/webcontent/wcmsp-173111.pdf>
- <http://www.health.state.mn.us/divs/eh/water/schools/>
- <http://www.health.state.mn.us/divs/eh/water/schools/pbschoolguide.pdf>
- <http://www.health.state.mn.us/divs/eh/water/factsheet/ncom/lead.pdf>
- <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water#regs>