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# **UNDERSTANDING LEAD AND WATER**

Water is lead-free when it leaves the water treatment plant, but lead can be released when water contacts pipes and plumbing fixtures that contain lead. Lead sources and lead levels vary between buildings, so it is important to identify and remove any lead sources in each household.

Pregnant or nursing women and children under age six should use filtered tap water for drinking water and cooking until all lead sources are removed. Filters certified for lead removal are required to meet National Sanitary Foundation (NSF) Standard 53.

Minimizing lead exposure is the shared responsibility of City of Bloomington and individual residents. The American Water Works Association (AWWA) and City of Bloomington strongly recommend that residents identify and remove any lead pipes or plumbing materials serving their home. **The city will coordinate lead testing at the city's expense as a service for residents that request testing to be performed.** 

To learn more about lead testing or lead service line replacements, if you have questions about drinking water, or if you are experiencing water quality issues, please contact the Public Works Department at 309-434-2225.

#### What you need to know

Lead is a heavy metal that can enter drinking water from the corrosion of pipes and plumbing materials. Exposure to lead is a public health risk, especially for pregnant women and children under age six. The concentration of lead in drinking water varies among homes in the City of Bloomington.

#### Lead exposure and health

Lead can cause serious health problems if too much enters the body from drinking water or other sources. Infants, young children, and pregnant women have the greatest risk of lead exposure. Lead can cause damage to the brain and kidneys and can interfere with the production of red blood cells that carry oxygen to all parts of the body. Adults with kidney problems and high blood pressure are also more affected by low levels of lead than healthy adults. Lead is also stored in bones, and it can be released later in life.

During pregnancy, the child(ren) could receive lead from the mother's bones, which may affect brain development. Scientists have found that lead can impact the brain and lead to a lower IQ in children.

#### Testing a home for lead in drinking water

The city will coordinate lead testing at the city's expense as a service for residents that request testing to be performed. In addition, the city requests in-home testing from various residents for its annual Water Quality Report to check lead levels.

#### Sources of lead in drinking water from lead service lines

The main source of lead in drinking water is lead service lines. A service line connects the water main in the street to a shut off and from a shut off to household plumbing. In Bloomington, water service lines are partially maintained by the city and partially maintained by the property owner. The city is responsible for the portion of the service line from the main to a shut off, and the property owner is responsible for the portion from a shut off to household plumbing. The city is not aware of any lead water mains in the city's water system.

In the United States, lead service lines were predominantly installed until the mid-1950s, and a minority were installed through 1986. All homes built after 1986 would not have a lead service line, but older properties may still have one. Lead service lines are in areas with older homes.



## Eliminating lead in drinking water from lead service lines

## Public Portion

The majority of remaining lead service lines are partial lead service lines, where a portion of the service line is replaced, but a portion made of lead remains in public and/or private space. If the lead portion is in the public space, the city is responsible for it and will replace it. At this time, public portions of lead service lines are replaced with copper service lines by the city as they are found by inspectors, crews, contractors, and property owners.

The city is continuing to monitor new legislation for an update to the Lead and Copper Rule from the Environmental Protection Agency (EPA) and the Illinois Environmental Protection Agency (IEPA). IEPA rules are expected to be stricter than rules from the EPA, which means that updated rules from both agencies would need to be established before taking further action on them. Once new rules are established, the city will perform a study to predict where the remaining lead service lines are located to make them easier to find and replace. Once the study is complete, the department will take a more targeted approach to replacing the public portion of lead service lines.

## Private Portion

The city does not work on or pay for private portions of lead service lines, but highly recommends that they are replaced immediately with copper service lines. Though the city has no legal means to compel a property owner to replace their portion of a lead service line, the AWWA and the City of Bloomington strongly recommend that residents identify and remove any lead pipes or plumbing materials serving their home. If a property owner replaces a lead service line between the shut off and the household plumbing, the city will replace the portion of the service line between the shut off and the water main. The city conducts public outreach and education to inform residents of the importance of removing lead pipes or plumbing materials. For consideration and potential coverage of future events, property owners may be eligible to enroll in water line protection through the city's ServLine program or through another provider that offers water line protection. Though program coverages vary, water line protection typically covers the repair or replacement of cracked or broken water lines up to a certain dollar amount. For more information on the programs and provider options, visit www.cityblm.org/servline to download the Program Detail Document or contact your insurer. To contact ServLine directly, call 309-585-3671.

# Other sources of lead in drinking water

#### Lead solder

This connects pipes in household plumbing. In 1986, lead solder was banned from use in household plumbing. If the house was built before 1987, the plumbing may have lead solder.

## Brass faucets, valves, or fittings

Almost all faucets, valves, and fittings have brass components. Until 2014, brass faucets and fittings sold in the U.S. and labeled "lead-free" could contain up to eight percent lead. Effective January 2014, the Reduction of Lead in Drinking Water Act specifies that these materials may not contain more than 0.25 percent lead.

## Galvanized iron pipes

Household galvanized pipes are old, corroded pipes that were installed in many homes before the 1960s. These pipes can release lead in water if the property has, or previously had, a lead service line. Galvanized pipes are made with a protective layer of zinc. However, the zinc layer erodes over time and results in corrosion. When lead is released from a lead service line and passes through galvanized plumbing (particularly over decades of use), lead can accumulate on the inside, corroded walls of this plumbing.

Lead release from galvanized pipes can vary from home to home and can continue to occur even after a lead service line is replaced. Galvanized pipes can cause other water quality problems, such as low water pressure and discolored water.

# Who is responsible for addressing lead in water in the City of Bloomington?

## City of Bloomington

- Complies with the EPA's Lead and Copper Rule and conducts regulatory lead testing and reports results to the EPA.
- Conducts public outreach and education and participates in research studies.
- Optimizes water chemistry to minimize pipe corrosion in the distribution system and customer households and monitors water chemistry at the treatment plant and throughout the distribution system.

## Property Owners

- Responsible for water service lines from the shut off to the resident and household plumbing.
- Responsible for ensuring household water quality and minimizing lead exposure, including cooperating with the city to sample water to test for lead, flushing household plumbing, and if necessary, using a water filter.

## IEPA

- Enforces compliance with the Lead and Copper Rule in the City of Bloomington. Provides technical assistance to the City of Bloomington.
- Reviews treatment processes, monitoring plans and test results to verify compliance with the Lead and Copper Rule.
- Issues violations for non-compliance and requires corrective actions to achieve compliance.