



Lead in Drinking Water Frequently Asked Questions

What is lead?

Lead is a common, naturally occurring, metallic element that can be found in air, soil, and water. It was commonly used in gasoline and paint until the 1970s and is still sometimes found in products such as ceramics, batteries, ammunition, and cosmetics. Lead was used for centuries in plumbing because of its pliability and resistance to leaks. In fact, lead's chemical symbol, Pb, is derived from the Latin word for plumbing.

Why is lead a health risk?

Lead is a toxic metal that can cause immediate health effects at high doses and long-term health effects if it builds up in the body over many years. Lead can cause brain and kidney damage in addition to effects on the blood and vitamin D metabolism.

Pregnant women and young children are particularly vulnerable because the physical and behavioral effects of lead occur at lower exposure levels in children than in adults. In children, low levels of exposure have been linked to central and peripheral nervous system damage, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells.

While people are more commonly exposed to lead through paint, soil, and dust, the EPA estimates infants who consume mostly formula mixed with water that contains lead can receive 40 percent to 60 percent of their exposure to lead from drinking water.

When was lead used in plumbing materials?

Nationally:

Lead and lead-containing materials were allowed in municipal and household plumbing until 1986. In 1986, U.S. Congress amended the Safe Drinking Water Act to prohibit the use of pipes, solder or flux that were not "lead-free." At the time "lead-free" was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%. In 2014, the maximum allowable lead content was reduced to not more than a weighted average of 0.25% of the wetted surface of pipes, pipe fittings, plumbing fittings and fixtures.

In Iredell Water's system:

Although we cannot completely rule out the use of lead service lines as we conduct our inventory, since it was founded in 1966, Iredell Water Corporation has never allowed the use of lead service lines within our system and homes built in or after 1988 are far less likely to have plumbing fixtures or solder that contains lead. However, homes and businesses built and connected to the Iredell Water system before March 1987, which is when all lead was banned for use in plumbing, may still contain lead.

As a result, we are specifically asking our customers with homes or businesses built before March 1987 to help us determine what their service lines are made of by checking their water service connections.

How do I know if my drinking water contains lead?

Lead is not readily apparent in water and might be colorless, odorless and tasteless. The only way to know for certain whether your drinking water contains lead is to have your water tested by a certified laboratory.

How does lead get into drinking water?

It is important to note that lead is NOT in Iredell Water's drinking water when it leaves the distribution system, nor is it in the water as it travels through our water mains. However, in some older homes, lead may be present in the pipe connecting the home to the water meter – known as a service line -- or in the home plumbing such as valves, fittings, and faucets.

Lead in service pipes, plumbing or fixtures can dissolve, or particles can leach into the water and end up at the tap. Iredell Water's treatment process reduces the possibility that lead from your private plumbing could enter your drinking water.

What is a water service line?

A service line is an underground pipe that carries water from Iredell Water's water main to the meter. A second line connects the meter to a home or business. Typically, this pipe is small, with a diameter of two (2) inches or less. A service line and connection may consist of multiple plumbing material types including copper, galvanized iron, lead or plastic.

Is water the only source of lead exposure?

No. Lead in drinking water generally represents only about 10% to 20% of total exposure, according to the U.S. Centers for Disease Control and Prevention. However, drinking water can account for more than half of lead exposure in children because of their lower body weight. Additionally, because no level of lead is considered safe, eliminating potential sources of lead is strongly advised.

How much lead in water is too much?

Lead can be harmful even at very low levels and can accumulate in our bodies over time, so wherever possible, steps should be taken to reduce or eliminate your household's exposure. While risks vary based on individual circumstances and the amount of water consumed, no concentration of lead is considered "safe." Households with pregnant women, infants, or young children are most vulnerable to the harmful effects of lead at low levels.

What are Iredell Water's compliance sample results for lead?

Iredell Water has complied with the EPA's Lead and Copper Rule since the Rule was first established in 1991. The latest results from our lead and copper compliance testing program are provided in the Water Quality Report (also known as Consumer Confidence Report or CCR) that we publish each year. It can be found here: <https://iredellwater.com/water-quality-report>.

What can I do to reduce or eliminate lead from my drinking water?

The best way to remove risks of lead in water is to completely replace all sources of lead. But there are also steps you can take right away to reduce lead levels in your water:

Run the Tap Before Use – Lead levels are likely at their highest when water has been sitting in the pipe for several hours. Clear this water from your pipes by running the cold water for several minutes. This allows you to draw fresh water from the main. You can use this water on house plants or to flush toilets.

Clean Aerators – Aerators are small attachments at the tips of faucets which regulate the flow of water. They can accumulate small particles of lead in their screens. It's a good idea to remove your aerators at least monthly and clean them out.

Use Cold Water for Cooking and Drinking – Always cook and prepare baby formula with cold water, because hot water dissolves lead more quickly, resulting in higher levels in water.

Do Not Boil Water to Remove Lead – **Boiling water will NOT remove lead.**

Filter the Water – Many home water filters are effective at removing lead. If you purchase a filter, make sure it is certified for lead removal and that you maintain it properly. [Find out more information from the EPA on how to find the correct filters here.](#)

Are there special steps I should take to protect my developing baby, infant or young children?

Those in households with pregnant women, infants, or young children should be especially aware of the potential for lead exposure through drinking water. Babies and young children are most vulnerable to the harmful effects of lead at low levels. The EPA estimates infants who consume mostly formula mixed with water that contains lead can receive 40 percent to 60 percent of their exposure to lead from drinking water.

Is it safe to shower in water that contains lead?

Because lead is not absorbed through the skin, bathing or showering in water containing lead is not considered a health risk.

How do I know if my home has a lead service line or lead plumbing?

The EPA's Lead and Copper Rule (LCR) is focused on finding all remaining lead in our nation's water systems. To accomplish this, all water systems are required to conduct, and publicly report, an inventory of their utility and customer lines.

The revised LCR also requires water providers like Iredell Water to investigate and inventory the water service lines on our customers' private properties. This new regulation is one requires Iredell Water to ask for our customers' assistance in determining what their water service line is made of.

To be fully respectful of your rights as a home or business owner, Iredell Water will send you a link to an online survey that will walk you through an easy-to-use, step-by-step process to check your private water service line for lead. The survey will then enable you to send the information quickly and securely to Iredell Water's staff for review.

To take part in the survey, follow the QR code or links on our website to visit our Lead-Safe Community webpage.