

# Lead in Drinking Water

**APPROVED 10/30/2024**

Lead is a poisonous metal that can cause long-term health and behavioral problems. The main way people come in contact with lead in Minnesota is through lead-based paint in homes built before 1978. There are also many other ways to come in contact with lead, including through drinking water. The two largest sources of lead in drinking water are lead in pipes that connect homes with city water called lead service lines and lead in household plumbing.

## Health Effects

Coming in contact with lead can cause serious health problems for everyone. There is no safe level of lead. Babies, children under six years, and pregnant women are at the highest risk. Drinking, breathing, eating or touching food, water and other materials that contain lead can damage the brain, kidneys, and nervous system. In children, lead can also slow development or cause learning, behavior, and hearing problems.

## From Environmental Protection Agency

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

## How to protect yourself and your family

You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. Visit [Common Sources of Lead \(https://www.health.state.mn.us/communities/environment/lead/fs/common.html\)](https://www.health.state.mn.us/communities/environment/lead/fs/common.html) to learn how to reduce your contact with lead from sources other than your drinking water.

Lead can get in your drinking water as it passes through the plumbing in your house or when it sits in lead pipes for a while. Read below to learn how to protect yourself from lead in your drinking water.

- **Let the water run** for at least 1 minute before using it for drinking or cooking if the water has not been turned on in over six hours. If you have a lead service line connecting your home to city water, you may need to let the water run 3 – 5 minutes.
- **Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.
- **Test your water.** In most cases, letting the water run and using cold water for drinking and cooking should keep lead levels low in your drinking water. If you are still concerned about lead, arrange with a laboratory to test your tap water. Testing your water is important if young

children or pregnant women drink your tap water. All testing should be done through an accredited laboratory. Contact a [Minnesota Department of Health accredited laboratory](https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam) (<https://eldo.web.health.state.mn.us/public/accreditedlabs/labsearch.seam>) to purchase a sample container and instructions on how to submit a sample. You can also contact your county or water utility to see if they have any programs to make testing your water easier.

- **Get the lead out.** Find out if you have a lead service line connecting your home to city water by contacting your system's water utility. If you do have a lead service line, make plans to get it replaced by coordinating with your water utility. If your home has plumbing fixtures made before 1986, you may want to consider replacing them with newer, lead-free fixtures if testing shows lead is present and is not reduced by letting the water run.
- **Treat your water.** If you cannot find the source of lead and letting the water run does not reduce lead levels, you may need to consider a water treatment option such as a certified filter for lead removal. See [Home Water Treatment Fact Sheet](https://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html) (<https://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html>) for more information.

## If you have a private well

Lead is not usually found in well water. Lead may enter your drinking water as it travels from your well through your plumbing system. Wells, pipes, solder, and fixtures

built before 1995 may have parts that have lead in them. Visit [Lead in Well Water Systems](https://www.health.state.mn.us/communities/environment/water/wells/waterquality/lead.html) (<https://www.health.state.mn.us/communities/environment/water/wells/waterquality/lead.html>) to learn more. Make sure you use cold water and let it run before using it for drinking and cooking. You are responsible for keeping your well water safe and testing it as needed.

## If you are on a public water system

All community water systems (serving where you live) follow the U.S. Environmental Protection Agency (EPA) standards for testing for lead and copper. They also follow EPA standards to ensure water does not easily dissolve lead and copper while moving through pipes. You can find the levels of lead and copper your community water system detected by looking at your Consumer Confidence Report (CCR), also known as an annual drinking water quality report. You can call your community water system to get a copy of the report, or you may be able to find it online at [Consumer Confidence Reports](https://www.health.state.mn.us/communities/environment/water/com/ccr.html) (<https://www.health.state.mn.us/communities/environment/water/com/ccr.html>)

Non-community systems serving schools, offices, factories, and childcare facilities follow the EPA standards for testing for lead and copper; you can contact your non-community system to find the level of lead detected in the system.

Non-community systems serving restaurants, resorts, and campgrounds are not required to test for lead.

Lead can get into your drinking water as it passes through your house's plumbing. If you live in a house built before 1986, you may have lead parts in your system. Make sure you use cold water and let the water run before using it for drinking and cooking. The only way to know how much lead is in your drinking water is to test the water from your tap.

## Background

Lead occurs naturally and has been used in many products worldwide, going back to at least the Roman Empire. As lead has been studied over the years, we keep identifying additional ways that it is toxic. Levels that were once considered safe are now dealt with as a medical emergency. The EPA continues to research lead to decide if more actions are needed. A law passed in 1986 restricts how much lead can be used in plumbing parts. In 2014, the 1986 law was made even stricter. Some plumbing parts still have minimal amounts of lead in them. Other parts are now made of materials other than lead; one of those materials is copper. Like lead, copper can also dissolve into water, and too much copper can be harmful to you. Read more about [Copper in Drinking Water](https://www.health.state.mn.us/communities/environment/water/contaminants/copper.html) (<https://www.health.state.mn.us/communities/environment/water/contaminants/copper.html>).

The EPA has an action level of 15 parts of lead per billion parts of water (ppb) for public water systems. Therefore, a public water system must take action to reduce the amount of lead in the water if more than 10 percent of the water samples have lead levels over 15 ppb. This is an action level; there is no safe level of lead in the water.

## Lead in Minnesota

The number of people with reported high blood lead levels in Minnesota has been decreasing since at least the 1990s. The most common way for Minnesotans to come in contact with lead is through lead-based paint found in homes built before 1978.

In 2021, only 4 out of 1,441 tested public water systems in Minnesota went over EPA's lead action level. These systems are finding ways to correct the issue. There can still be lead in drinking water in Minnesota homes depending on when homes were built. Homes built before 1940 may have lead service lines that connect them to public water. In addition, plumbing parts made before 1986 may contain lead.

Learn more about lead levels in Minnesota.

- [MN Public Health Data Access Portal: Childhood Lead Exposure](https://apps.health.state.mn.us/mndata/lead/) (<https://apps.health.state.mn.us/mndata/lead/>)
- [Lead Poisoning Prevention Reports](https://www.health.state.mn.us/communities/environment/lead/reports.html) (<https://www.health.state.mn.us/communities/environment/lead/reports.html>)
- [Drinking Water Protection Annual Reports](https://www.health.state.mn.us/communities/environment/water/dwar.html) (<https://www.health.state.mn.us/communities/environment/water/dwar.html>)

## What is MDH doing

[Lead programs](https://www.health.state.mn.us/communities/environment/lead/index.html) (<https://www.health.state.mn.us/communities/environment/lead/index.html>) at MDH work with state and local partners to find and eliminate lead hazards in homes, retail goods, and other areas. MDH also regulates public water systems by:

- Approving public water systems' treatment plans
- Enforcing the Safe Drinking Water Act (SDWA) which has a specific part addressing lead and copper. See [Background on Drinking Water Standards in the Safe Drinking Water Act \(SDWA\)](https://www.epa.gov/sdwa/background-drinking-water-standards-safe-drinking-water-act-sdwa) (<https://www.epa.gov/sdwa/background-drinking-water-standards-safe-drinking-water-act-sdwa>).
- Testing public water supplies

MDH keeps track of blood lead levels in Minnesota. MDH also makes sure children and pregnant women with high blood lead levels get help to reduce lead risks. Through outreach, MDH helps people learn about the risk of lead and how to reduce contact with lead. MDH provides guidance for:

- [Lead in Well Water Systems](http://www.health.state.mn.us/divs/eh/wells/waterquality/lead.html) (<http://www.health.state.mn.us/divs/eh/wells/waterquality/lead.html>)
- [Reducing Children's Exposure to Lead in Drinking Water \(PDF\)](https://www.health.state.mn.us/communities/environment/water/docs/contaminants/lead.pdf) (<https://www.health.state.mn.us/communities/environment/water/docs/contaminants/lead.pdf>)
- [Lead in Drinking Water in Child Care Settings](https://www.health.state.mn.us/communities/environment/water/schools/childcare.html) (<https://www.health.state.mn.us/communities/environment/water/schools/childcare.html>)

- [Centers for Disease Control and Prevention: Lead Poisoning Prevention](https://www.cdc.gov/nceh/lead/prevention/default.htm) (<https://www.cdc.gov/nceh/lead/prevention/default.htm>)
- [EPA: Lead Hotline—The National Lead Information Center](https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center) (<https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center>)
- [EPA: Drinking Water Contaminants—Standards and Regulations](https://www.epa.gov/dwstandardsregulations) (<https://www.epa.gov/dwstandardsregulations>)
- [Minneapolis Public Works: Lead Fact Sheet](https://www.minneapolismn.gov/resident-services/utility-services/water/water-quality/lead/lead-facts/) (<https://www.minneapolismn.gov/resident-services/utility-services/water/water-quality/lead/lead-facts/>)
- [Are your pipes made of lead? Here's a quick way to find out – Minnesota Public Radio](https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home) (<https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home>)

Minnesota Department of Health  
 Environmental Health Division  
 651-201-4571  
[www.health.state.mn.us](http://www.health.state.mn.us)

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To obtain this information in a different format, call: 651-201-4571. Printed on recycled paper.

## What are others doing

Many local, state, and national agencies work on lead issues around the country. The web pages below are some key sources for more lead information: