

## Lead in Drinking Water

Lead is a poisonous metal that can cause long-term health and behavioral problems. The main way to 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.

### 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. Coming in contact with too much lead can damage the brain, kidneys, and nervous system. In children, lead can also slow development or cause learning, behavior, and hearing 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. Learn how to reduce your contact with lead from sources other than your drinking water at *Lead Poisoning Prevention: Common Sources*. Lead can get in your drinking water as it passes through your household plumbing system. Here are ways to protect yourself from lead in your drinking water.

1. **Let the water run** for at least 30-60 seconds 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, you may need to let the water run longer.
2. **Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.
3. **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. Minnesota Department of Health (MDH) recommends using an accredited laboratory (see *Search for Accredited Laboratories*). Contact the laboratory to get sample containers and instructions, or ask your county environmental or public health services if they provide well water testing services.
4. **Treat your water** if a test shows your water has high levels of lead after you let the water run (see *Home Water Treatment*).

### If you have a private well

Lead is not usually found in your well water. Lead may enter your drinking water as it travels from your well through your plumbing system. Wells and plumbing systems built before 1995 may have parts that have lead in them. Learn more at *Lead in Well Water Systems*. Make sure you use cold water and let the water 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 public water systems have to follow standards set by the U.S. Environmental Protection Agency (EPA) for testing for lead and copper. They also follow EPA standards to make sure water does not easily dissolve lead and copper while moving through pipes. You can find the levels of lead and copper detected in the system serving where you live by reading the system's water quality report (also known as a Consumer Confidence Report [CCR]). You can call your public water system to get a paper copy of your CCR, or you may be able to find it online (see *Search for your CCR* webpage). If you want to find the levels of lead and copper places beside your home, contact the water system serving that location.

Lead can get into your drinking water as it passes through your household plumbing system. If you live in a house built before 1986, you may have lead parts in your plumbing 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 your water.

### Background Information

Lead occurs naturally and has been used in many products around the world. Researchers keep finding more ways that lead 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. For public water systems, a law passed in 1986 restricts how much lead can be used in plumbing parts. In 2014, the 1986 law became stricter. Some plumbing parts still have very small 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 bad for you (see *Copper in Drinking Water*).

The EPA has an action level of 15 parts of lead per billion parts of water (ppb) for public water systems. A public water system has to take actions 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 water.

### Lead in Minnesota

The number of people with reported high levels of lead 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 2014, less than 0.1 percent of Minnesota's public water systems went over EPA's lead action level. There can still be lead in drinking water in Minnesota homes due to when homes were built. Homes built before 1940 may have lead service lines that connect them to public water. Plumbing systems built before 1986 may have lead parts. Learn more about lead levels in Minnesota at *Childhood Lead Exposure, Lead Poisoning Prevention, and Drinking Water Protection Annual Reports*.

### What MDH is Doing

MDH enforces the Safe Drinking Water Act (which has a specific part about lead and copper) and provides guidance on how to reduce lead in drinking water at public schools and childcare services.

The MDH Lead and *Healthy Homes* programs work with state and local partners to find and get rid of lead hazards in homes, retail goods, and other areas.

MDH keeps track of blood lead levels in Minnesota (see *Annual elevated blood lead levels: facts & figures*). MDH also makes sure children and pregnant women who have 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.

### Resources

[Annual elevated blood lead levels: facts & figures](http://data.web.health.state.mn.us/lead_annual_level) (data.web.health.state.mn.us/lead\_annual\_level)

[Childhood Lead Exposure](http://data.web.health.state.mn.us/web/mndata/lead) (data.web.health.state.mn.us/web/mndata/lead)

[Common Sources of Lead](http://www.health.state.mn.us/communities/environment/lead/fs/common.html) (www.health.state.mn.us/communities/environment/lead/fs/common.html)

[Copper in Drinking Water](http://www.health.state.mn.us/communities/environment/water/contaminants/copper.html) (www.health.state.mn.us/communities/environment/water/contaminants/copper.html)

[Drinking Water Protection Annual Reports](http://www.health.state.mn.us/communities/environment/water/dwar.html) (www.health.state.mn.us/communities/environment/water/dwar.html)

[Healthy Homes Minnesota](http://www.health.state.mn.us/communities/environment/healthyhomes/index.html) (www.health.state.mn.us/communities/environment/healthyhomes/index.html)

[Home Water Treatment](http://www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html) (www.health.state.mn.us/communities/environment/water/factsheet/hometreatment.html)

[Lead Poisoning Prevention: Reports](http://www.health.state.mn.us/communities/environment/lead/reports.html) (www.health.state.mn.us/communities/environment/lead/reports.html)

[Lead in Well Water Systems](http://www.health.state.mn.us/communities/environment/water/docs/wells/waterquality/lead.pdf) (PDF) (www.health.state.mn.us/communities/environment/water/docs/wells/waterquality/lead.pdf)

[Reducing Children's Exposure to Lead in Drinking Water](http://www.health.state.mn.us/communities/environment/water/docs/contaminants/lead.pdf) (PDF) (http://www.health.state.mn.us/communities/environment/water/docs/contaminants/lead.pdf)

[Reducing Lead in Drinking Water: A Technical Guidance and Model Plan for Minnesota's Public Schools](http://www.health.state.mn.us/communities/environment/water/docs/pbschoolguide.pdf) (PDF) (http://www.health.state.mn.us/communities/environment/water/docs/pbschoolguide.pdf)

[Search for Accredited Laboratories](http://www.health.state.mn.us/labsearch) (http://www.health.state.mn.us/labsearch)

[Search for your CCR](http://mnccr.web.health.state.mn.us/index.faces) (mnccr.web.health.state.mn.us/index.faces)

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