LEAD IN DRINKING WATER
WHAT TO KNOW IF YOU ARE A HOMEOWNER

WHAT ACTIONS CAN REDUCE LEAD IN DRINKING WATER?

Only use cold tap water for drinking, cooking and making baby formula and baby cereal. Lead can dissolve more easily in hot tap water. If you need hot water for these uses, draw water from the cold tap and heat it on the stove. Do not boil water to remove lead, as it will not remove lead and may actually concentrate it.

Flush your cold water tap if water has not been used in several hours. The more time water has been sitting in your home's pipes, the more lead it may contain. Each situation is different, so contact your drinking water provider for advice on how long you should flush your tap. For example, if your home has a lead service line you may have to flush the water for a longer time. If you do not want to waste water, collect flushed water to water plants.

Install a water filter. Make sure that your filter has been NSF/ANSI Standard 53 certified for lead reduction.

Clean your faucet aerators. It is a good idea to routinely disassemble faucet aerators and rinse them. Sediment and debris that build up may contain lead and other contaminants.

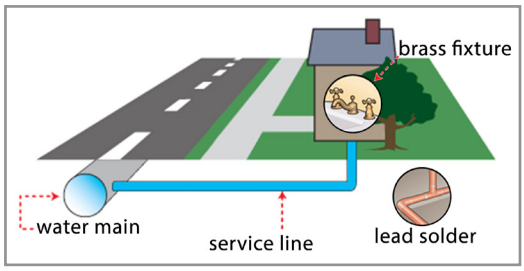
Replace brass fixtures installed before 2014. Refer to the link under "Where can I find more information?" to learn more about how to identify lead-free plumbing fixtures.

Replace your lead service line. Ownership of a lead service line is typically shared between the homeowner and the drinking water provider. Your water provider can provide more information about options for lead service line replacement and any payment assistance possible. When replacing lead service lines, it is critical to avoid partial replacement. Replace the entire lead service line from the water main under the street to the house.

HOW CAN LEAD GET INTO MY DRINKING WATER?

Lead seldom occurs naturally in rivers, lakes and other water sources. The pipes that carry water from the water treatment plant to water mains under the street supplying your home also normally do not add lead to your water. If lead is found in your water, the most likely reason is the corrosion of one of the following:

Lead Service Line – a pipe that connects your house to the water main in the street, which may be made of lead. A lead service line is the largest potential source of lead exposure in drinking water, so it is important to confirm if your home has a lead service line. To find out more about your home's service line, call your drinking water provider or a local licensed plumber.



Lead Solder – solder commonly contains lead and is used to connect copper piping.

Brass Fixtures – almost all water meters, faucets, valves and fittings manufactured prior to 2014 may have brass components which contain lead.

Lead in solder, fixtures and a lead service line can dissolve into the water over time, especially when water is not being used. Contact your drinking water provider to find out what they are doing to reduce the corrosivity of your water.

HOW CAN I FIND OUT IF I HAVE LEAD IN MY DRINKING WATER?

You cannot see, taste, or smell lead in drinking water. The only way to confirm that your tap water contains lead is to have it tested. Contact your drinking water provider and ask about lead testing (either for free or at cost) or ask if it can suggest a state certified laboratory for lead analysis. Most testing laboratories will provide instructions and sample containers for you to use. You should not use the water in your household for a minimum of six hours before collecting water samples.

Carefully follow all instructions and use only the supplied bottles when collecting your samples. If results from sample analysis show measureable levels of lead, take actions to minimize your exposure. Be aware that lead levels can vary over time based on many factors including seasonality (e.g., lead levels tend to be higher during the summer), water chemistry, plumbing changes in your home and even construction in your neighborhood. Therefore, test your drinking water periodically.

WHERE CAN I FIND MORE INFORMATION?

More information about protecting you and your family from lead in drinking water is available from the following sources:

- National Drinking Water Alliance's Lead in Drinking Water Webpage[4]
- CDC's Lead Webpage[5]
- EPA's Basic Information about Lead in Drinking Water Website[6]
- EPA's Find drinking water quality information for your community[7]
- EPA's Find a state-certified testing laboratory[8]
- EPA's How to Identify Lead Free Certification Marks for Drinking Water System & Plumbing Products[9]
- NSF International's Guide to Choosing a Certified Lead Filtration Device[10]

Contact your local drinking water provider to find out more about the quality of your drinking water. Each drinking water provider is required to develop and deliver a Consumer Confidence Report (CCR) which includes information on source water, the levels of detected contaminants, and compliance with drinking water rules and regulations.

Special Thanks to the following individuals for review and guidance:

Elin Betanzo, Northeast-Midwest Institute

Marc Edwards, Virginia Polytechnic Institute and State University

Melissa Essex Elliott, Denver Water

Mona Hanna-Attisha, Hurley Children's Hospital at Hurley Medical Center

David Jacobs, National Center for Healthy Housing

Tom Neltner, Environmental Defense Fund

Art Reyes III, Center for Popular Democracy

W.K. KELLOGG FOUNDATION

Horsley Witten Group

Resources prepared by the Horsley Witten Group and commissioned by the W.K. Kellogg Foundation.

www.drinkingwateralliance.org/lead

HOW CAN LEAD AFFECT MY HEALTH?

Lead exposure affects everyone, but infants, young children, and pregnant women are especially vulnerable to lead. To determine if lead exposure is occurring from drinking water, paint or other sources, a simple blood test for lead is recommended for young children. Parents of young children and women who are pregnant or nursing should talk with their doctor about exposure to sources of lead. There is no safe blood lead level (BLL) in children and exposure can lead to:

- Damage to the brain and nervous system
- Slowed growth and development
- Learning and behavior problems

The most important step that parents, doctors and others can take is to prevent lead exposure before it occurs.

WHAT KIND OF WATER FILTERS ARE AVAILABLE?

Filters come in a variety of shapes, sizes, technologies and prices. Ensure that your water filter has been certified to NSF/ANSI Standard 53 for reducing lead in drinking water. Common types include:

Pitcher-style filters – Commonly used water treatment devices that trap contaminants.

Faucet-mounted filters – These small filters screw directly onto the faucet nozzle. Most units feature a bypass valve so you can only filter water used for drinking.

Whole house filtration will not eliminate lead levels at an individual faucet, so it is important to filter drinking water at the tap. Remember that all filtration devices must be replaced periodically, according to the manufacturer's instructions to ensure that they are working correctly.

HOW CAN I PROTECT MYSELF AND MY FAMILY FROM OTHER SOURCES OF LEAD?

Many homes built before 1978 have lead-based paint. Lead from paint chips or paint dust, due to deteriorated paint or renovations that did not use lead-safe work practices can pose serious health hazards. Lead can also be found in soil, especially close to the house. More information about how to protect your family from lead is available in the following:

- EPA's Protect Your Family From Lead in Your Home[1]
- EPA's Lead-Safe Certified Guide to Renovate Right[2]
- EPA's Lead Poisoning Home Checklist[3]

Human skin does not absorb lead in water, so bathing, showering and washing hands to protect yourself from exposure to lead from paint chips, paint dust or soil should be safe for you and your children.

[1] www.epa.gov/sites/production/files/2013-09/documents/lead_in_your_home_brochure_land_color_508.pdf

[2] www.epa.gov/sites/production/files/documents/renovaterightbrochure.pdf

[3] www.epa.gov/sites/production/files/documents/parent_checklist3.pdf

[4] www.drinkingwateralliance.org/lead

[5] www.cdc.gov/nceh/lead

[6] www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water

[7] www.epa.gov/ccr

[8] www.epa.gov/dwlabcert/contact-information-certification-programs-and-certified-laboratories-drinking-water

[9] https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt

[10] www.nsf.org/info/leadfiltrationguide