



Lead in Drinking Water: Important Information on How to Protect your Health - PUB2409

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Water Protection Program fact sheet

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Lead is a common metal that has been in many consumer products, but is now known to be harmful to human health if ingested or inhaled. It can be found in lead-based paint, air, soil, household dust, food, some types of pottery and drinking water. Lead is rarely found in natural sources of water, such as rivers, lakes, wells or springs.

What are the health effects of lead?

When people come in contact with lead, it may enter their bodies and accumulate over time, resulting in damage to the brain and kidneys. This can interfere with the production of red blood cells that carry oxygen to all parts of the body. The greatest risk of lead exposure is to infants, young children and pregnant women. Lead in water can be an issue for infants whose diets may be mostly liquids – such as baby formulas or concentrated juices mixed with water. Smaller bodies can absorb lead more rapidly than larger ones, so amounts of lead that would not hurt an adult can be very harmful to a child. Scientists have linked the effects of lead on the brain with lower IQ in children. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Adults who drink water high in lead over many years could develop kidney problems or high blood pressure.

What are the sources of lead exposure?

The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. If concerned, parents should ask their healthcare provider about testing children for high blood-lead levels.

What can I do to reduce exposure to lead in drinking water?

Lead may work its way into drinking water after the water enters the distribution system and is on its way to consumer's taps. This usually happens through the corrosion of materials containing lead in household plumbing. These materials include brass faucets, lead solder on

copper pipes, lead pipes or lead service lines connecting the water main to the indoor plumbing. In general, since the 1930s and 40s lead pipes are no longer installed for service lines or in household plumbing, and lead solder has been banned in Missouri since 1989.

There are several steps you can take to reduce your exposure to lead in drinking water, including the following:

1. Run your water to flush out lead. If a faucet has not been used for several hours, allow the water to run at the tap for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead-containing water from the pipes. The water you run from drinking water taps does not have to be wasted; you can use this water for cleaning purposes or watering plants. You may want to keep a container of drinking water in your refrigerator so you don't have to run water every time you need it.
2. Use cold water for cooking and preparing baby formula. Do not drink or cook with water from the hot water tap, as lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
3. Do not boil water to remove lead. Boiling water will not reduce lead.
4. Look for alternative sources or treatment of water. If water testing has shown you have elevated lead in your drinking water, you may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead, with NSF/ANSI 53-2021 labeling, or contact the [National Sanitation Foundation](#) at 800-NSF-8010 (**800-673-8010**) for information on performance standards for water filters. If you choose to install a lead-removal filter, be sure to maintain and replace the filter device according to the manufacturer's instructions to protect water quality.
5. Get your children tested. Contact your local public health department or healthcare provider to find out how to get children tested if it is a concern.
6. Identify if your plumbing fixtures contain lead. Brass faucets, fittings and valves, including those advertised as "lead-free" and sold legally until Jan. 4, 2014, may contribute lead to drinking water, because "lead free" was defined as 8% lead content. The law currently allows end-use brass fixtures, such as faucets, with up to 0.25% lead to be labeled as "lead-free." Visit the [National Sanitation Foundation](#) website to learn more about lead-containing plumbing fixtures.

For more information

Contact your public water system for information about what is being done to lower the risk of lead in your drinking water. For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. Environmental Protection Agency's [Lead](#) website, call the National Lead Information Center at 800-424-LEAD (**800-424-5323**) or contact your local public health agency or healthcare provider.

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.

For more information

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