



Lead in Drinking Water: Important Information on How to Protect Your Health

Lead is a common metal that has been used 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. Because smaller bodies absorb lead more rapidly than larger ones, amounts of lead that may not affect an adult can be very harmful to a child. Scientists have linked the effects of lead on the brain with lowered IQ in children. During pregnancy, the fetus receives lead from the mother's bones, which may affect brain development. Adults who drink lead-contaminated water 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 health care provider about testing children for high levels of lead in the blood.

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

Lead in drinking water usually results from the use of lead pipe in water systems or lead-based household plumbing materials. Water in the plumbing system can dissolve lead from pipes and solder. 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 ways to reduce your exposure to lead in drinking water including the following:

- 1. Run tap water to flush out lead.** If water 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.** 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 or contact the National Sanitation Foundation at 800-NSF-8010 (800-673-8010) or www.nsf.org for information on performance standards of water filters. If you choose to install a lead removal filter, be sure to maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.
5. **Get your children tested.** Contact your local 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.**
As of Jan. 4, 2014, all end-use brass fixtures, such as faucets, must be produced lead-free, which means with a weighted average of no more than 0.25 percent lead. The National Sanitation Foundation certifies fixtures as lead-free by stamping the package with "NSF 61/9" Visit the National Sanitation Foundation website at www.nsf.org to learn more about lead-containing plumbing fixtures.

For more information

For more information on lead in drinking water, call the Missouri Department of Natural Resources at 800-361-4827 or 573-751-5331.

For additional details, contact your drinking water provider