



LEAD IN YOUR DRINKING WATER

Important Information to Protect Your Health

Lead is a toxic metal that can be found in all parts of our environment – air, soil, water, and even inside our homes. Lead has been used in many consumer products but is now known to be harmful to human health if inhaled or ingested. These products include paint, ceramics, pipes and plumbing materials, solders, gasoline, batteries, ammunition, and cosmetics.

WHAT IS THE HEALTH THREAT FROM LEAD IN DRINKING WATER?

Lead-containing drinking water can contribute to the build-up of lead in the body. The EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. This potential exposure increases for infants who consume mostly formula mixed with lead-containing water and can receive 40 to 60 percent of their exposure from drinking water.

Lead can cause serious health problems if too much accumulates in the body. It can cause damage to the brain, nervous system, red blood cells, and kidneys. The greatest risk of lead exposure is to infants, young children and pregnant women/fetuses. Smaller bodies can absorb lead more rapidly than bigger ones, so amounts of lead that won't hurt an adult can be very harmful to a child. A child's mental and physical growth can be permanently harmed by too much lead. Adults with kidney problems and high blood pressure can also be affected by low levels of lead more so than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, a child can receive lead from the mother's bones, which may affect brain development.

HOW DOES LEAD GET INTO DRINKING WATER?

Lead is not normally found in natural sources of water but typically gets into your water after it leaves the treatment plant or well. Through corrosion of the materials containing lead in household plumbing and/or service lines the lead can get in the drinking water. Corrosion is a reaction between the water and the lead pipes or solder. Dissolved oxygen, low pH (acidity) and low mineral content in water are common causes of corrosion. When water is in contact with materials containing lead for several hours, the lead has a higher likelihood of entering drinking water.

Materials which can contain lead include: brass faucets, fittings and valves, lead solder on copper pipes, lead pipes, or lead service lines connecting the water main to the household plumbing. Lead pipes are no longer installed for service lines or in household plumbing and lead solder has been prohibited since 1988 in North Dakota. Homes built before 1988 are more likely to have lead pipes or lead solder. The allowable lead content of brass components has also been reduced as of 2014; however, some homes may have brass which could still contribute some amount of lead.

HOW CAN LEAD EXPOSURE FROM DRINKING WATER BE REDUCED?

- 1. Run your water to flush out lead.** Flush taps before using water from them for drinking or cooking. Water which has been sitting in the pipes for longer periods of time is more likely to absorb lead from the plumbing system. Run the cold water tap until it becomes as cold as it will get. The amount of time this will take depends on your home and its plumbing. If your house has a lead service line to the water main, you may have to flush the water longer, for at least several minutes, before drinking to ensure you are getting water from the main.

Tips for Flushing

- ◆ Flushing is very important when water has not been used for a long time (six hours or more).
- ◆ Running water for household tasks such as showering, dishwasher use, flushing the toilet, can also be done to help flush the water throughout the plumbing; however, each tap should also be individually flushed prior to using the water for consumption.
- ◆ Once a tap has been flushed, consider filling containers for drinking water for storage in the refrigerator so flushing does not have to be repeated as often.
- ◆ The flushed water can be collected and used for household cleaning or for watering plants to avoid waste.

2. **Use ONLY water from the cold tap for cooking and preparing baby formula.** Do NOT cook, drink, or prepare baby formula with water from the hot water tap; lead dissolves more easily into hot water. If hot water is needed for consumption take water from the cold tap and then heat it by another method.
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 treatment device. Reverse osmosis and distillation units can be used. Check product information to be sure it has been certified for lead removal by NSF International (www.nsf.org or 800-NSF-8010). Treatment devices must also be maintained and replaced in accordance with the manufacturer's instructions to protect water quality.
5. **Test your water for lead.** You cannot see, taste, or smell lead dissolved in water. Testing can help determine if there is too much in your drinking water. The following is a list of some State approved laboratories in your area that you can call to have your water tested for lead.

Fargo Cass Public Health
 401 3rd Ave N
 Fargo, ND 58102
 701-298-6986

Minnesota Valley Testing Laboratory
 2616 East Broadway Ave
 Bismarck, ND 58501
 701-258-9720

6. **Get your child's blood tested.** Lead poisoning can occur with no obvious symptoms. If you are concerned about exposure, contact your local health department or healthcare provider to find out how you can get your child tested for lead.
7. **Identify and replace plumbing and fixtures containing lead.** Brass faucets, fittings, and valves, purchased prior to 2014, including those advertised as "lead-free" may contribute lead to drinking water. New fixtures labeled "lead-free" may only contain up to 0.25 percent lead and can be used to replace older fixtures. Lead pipes in your home can be identified by a licensed plumber. Lead is a dull gray metal that is soft enough to be easily scratched with a house key.
8. **Find out whether your service line is made out of lead.** The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the city's record of building permits which should be maintained in the files of the City Auditor's Office. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead.
9. **If you are served by a public water system contact your supplier to find out if the water system contains lead piping and whether your water is corrosive.** Under the Safe Drinking Water Act (SDWA), the Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 parts per billion (ppb). This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled. If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Utilities must also notify citizens of all violations of the standard.

For More Information

For more information on lead in drinking water contact the EPA's Safe Drinking Water Hotline at 800-426-4791. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at www.epa.gov/lead, contact the EPA's National Lead Information Center at 800-424-LEAD, or contact your health care provider.