

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child may receive lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Common sources of lead exposure are lead-based paint, household dust, soil, and some plumbing materials including many faucets. Lead can also be found in other household items such as pottery, make-up, toys, and even food. Lead paint was outlawed in 1978, but dust from homes that still have lead paint is

the most common source of exposure to lead. Therefore, make sure to wash your children's hands and toys often as they can come into contact with dirt and dust containing lead.

The water provided by the Littleton Water Department is lead-free when it leaves the wells. Local distribution pipes that carry the water to your community are made mostly of cast iron, ductile iron and cement and therefore do not add lead to water. However, lead can get into tap water through home service piping, lead solder used in plumbing, and some brass fixtures. Even though the use of lead solder was banned in the U.S. in 1986, it still might be present in older homes.

The corrosion or wearing away of these lead-based materials can add lead to tap water, particularly if water sits for a long time in the pipes before use. Therefore, water that has been sitting in household pipes for several hours, such as in the morning, or after returning from work or school, is more likely to contain lead. If high levels of lead are found in drinking water, water may contribute up to 20 percent of a person's exposure to lead. Infants who consume mostly formula mixed with lead-containing water can receive up to 60 percent of their exposure from water.

Steps You Can Take to Reduce Exposure to Lead in Drinking Water

Fresh water is better than stale: If your water has been sitting for several hours, run the water until it is consistently cold - usually about 15-30 seconds - before drinking or cooking with it. This flushes water that may contain lead from the pipes.

Use cold, fresh water for cooking and preparing baby formula: Do not cook with or drink water from the hot water tap. Lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

Do not boil water to remove lead. Boiling water will not reduce lead.

Test your home for lead: The only way to determine the level of lead in drinking water at your home is to have the water tested by a state certified laboratory. The cost to test is usually between \$10 and \$50. Consider having your paint tested also. A list of labs is available on-line at <http://public.dep.state.ma.us/Labcert/Labcert.aspx> or you can call MassDEP at (978) 682-5237 or e-mail Labcert@state.ma.us.

Test your child for lead: Contact your local health department or your local health care provider to find out how you can get

your child tested. A blood lead level test is the only way to know if your child is being exposed to lead. For more information, contact DPH at www.mass.gov/dph/clppp or at (800) 532-9571.

Identify if your plumbing fixtures contain lead: New brass faucets or other plumbing fixtures, including those labeled "lead-free", may contribute lead to drinking water. If you are concerned about lead in tap water, you should consider buying a low-lead or no-lead fixture. Contact NSF (see below) to learn more about lead-free faucets.

Faucets - Presently, the law allows many faucets to contain lead, even though they are labeled as "lead free". New faucets meeting the NSF 61 "lead-free" standard will have NSF 61/9 stamped on the new faucet's cardboard box, but these faucets may still contain lead. Some faucet manufacturers produce plastic or new low-lead brass faucets that have virtually zero lead, but you will have to check with the manufacturer.

Consider using a filter: If your water contains lead, you may want to consider using a filter. Make sure the filter you are considering removes lead - not all filters do. Be sure to replace filters in accordance with

manufacturers' instructions to protect water quality. Contact the National Sanitation Foundation at 1-800-NSF-8010 or www.nsf.org for more information on water filters. Also, if you are considering using bottled water, note that it may cost up to 1,000 times more than tap water. Simply flushing your tap, as described above, is usually a cheaper, equally effective alternative.

What is being done to control lead in the drinking water?

The Littleton Water Department is concerned about lead in your drinking water. We have both an extensive testing program and have treated the water to make it less corrosive. Although most homes have very low levels of lead in their drinking water, some homes may still have lead levels above the EPA Action Level of 15 parts per billion (ppb) in their first morning draw.

To monitor lead levels, the Littleton Water Department tests tap water in homes that are most likely to have lead. These homes are usually older homes that used lead solder, and they must be tested after water has been sitting overnight. The EPA rule requires that 90% of these worst case

samples must have lead levels below the Action Level of 15 ppb

The Littleton Water Department treats your water to make it less corrosive, thereby reducing the leaching of lead into drinking water. We have had a corrosion control program for many years, however during the late summer of 2009, due to changes in flow patterns and water main breaks associated with the Goldsmith Street reconstruction project, our corrosion control program was not optimized.

September sampling found 3 of 20, first morning draw samples above the EPA action level and we are allowed only 2.

System and corrosion control stabilization was undertaken immediately and spot testing has shown lead corrosion to be reduced and our system to again be in compliance.

Because of this exceedance, however, LWD is required to undertake a more rigorous sampling, monitoring, reporting and public education program in 2010. Because lead levels in home plumbing can vary, individual areas may occasionally have higher test results.

FOR MORE INFORMATION

Call us at 978-540-2222 or visit our website at www.lelwd.com to find out what else we are doing about lead, such as home testing. 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, MassDEP's website at <http://www.mass.gov/dep/water/drinking/lead01.htm>, the Department of Public Health's website at (www.mass.gov/dph/clppp) or call (800) 532-9571, or contact your local health care provider.

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IMPORTANT INFORMATION ABOUT LEAD IN DRINKING WATER

Why am I receiving this brochure?

The Massachusetts Department of Environmental Protection (MassDEP) requires public water systems that exceed the lead action level to provide this notification to consumers. Lead is a health concern and is commonly found in the environment; most commonly in lead based paint. Lead can also be found in water, though at much lower levels. While lead levels at the tap have dropped over 90% since 1992, during the September 2009 sampling period, the Littleton Water Department found elevated levels of lead in drinking water in some homes and exceeded the action level by one sample.

Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.