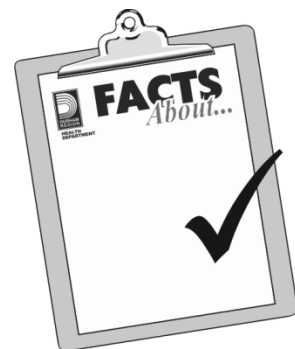




FACTS *About...*



HEALTH DEPARTMENT



Lead in Drinking Water

What is lead?

Lead is a silvery grey metal commonly found in the environment from both man-made and natural sources. Before the negative health effects were fully understood, lead was commonly used in a variety of products including plumbing, pipes, solder, gasoline and paints. As a result, trace amounts of lead may now be present in air, soil, household dust, food, drinking water and various consumer products. With the phase out of leaded gasoline and the elimination of lead in paints and plumbing pipes and solder, environmental exposure to lead has decreased significantly.

In general, drinking water that leaves the water treatment plant and travels through water mains is lead-free. However, drinking water may encounter lead in water service connection pipes (the pipe that connects a property to the watermain) or in plumbing materials found in older homes.

How can lead affect my health?

The primary concern from exposure to lead in drinking water is neurological and behavioural health effects in infants and young children. Infants and children are more susceptible to the effects of lead exposure, compared with healthy adults. The most current scientific evidence shows that even low levels of lead in the blood can have a negative impact on the intellectual and behavioural development of infants and children. Since their bodies are in a rapid state of development and they have a higher metabolic rate, they absorb and retain more lead.

Pregnant women should also take precautions to avoid exposure to lead since it can cross the placenta and result in exposures to the developing fetus. Lead may also be released into breast milk.

Short-term exposure to very high levels of lead can cause vomiting, diarrhea, convulsions, coma and even death, though severe cases of lead poisoning are rare in Canada. People exposed to lead for an extended period of time are also at risk for developing other adverse health effects, including kidney damage and disease, increases in blood pressure, and anemia. Inorganic lead is classified as "probably carcinogenic to humans" by the International Agency for Research on Cancer.

If you have specific health concerns related to lead exposure, you should discuss them with your family physician.

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For more information

Durham Region Health Department

905-668-2020 1-800-841-2729 durham.ca

If you require this information in an accessible format, contact 1-800-841-2729.

Lead in Drinking Water

How do I know if I have lead in my home?

The National Plumbing Code allowed lead in service pipes until 1975 and in solder until 1986. Generally, older homes and neighbourhoods are more likely to have lead service lines. However, even recently built homes may contain lead in brass fittings or solder as this was not banned from the plumbing code until the mid-1980s. To determine if you have lead in your plumbing system, consult a licensed plumber or consider having your tap water tested for lead.

How can I get my tap water tested for lead?

If you suspect that you may have lead materials in your service pipe or lead in your plumbing and you wish to have your tap water tested, the Region of Durham has a provincially mandated lead monitoring program. However due to prescribed limitations on the number, and locations for sampling, not all locations will be suitable for the program. For information regarding your suitability for this program, please call the Works Department at 1-800-372-1102 extension 3488.

Alternately, you can have your water analyzed by one of Ontario's licensed laboratories. Go to the Ministry of the Environment, Conservation and Parks website for a list of licensed laboratories: <https://www.ontario.ca/page/laboratories-licensed-test-lead> to view a list of provincially-licensed labs.

What is the standard for levels of lead in drinking water?

In March of 2019, Health Canada established a Maximum Acceptable Concentration (MAC) of 5 parts per billion (ppb) for total lead in drinking water. In Ontario, the current drinking water quality standard for lead in the *Safe Drinking Water Act, 2002* under Ontario Regulation 169/03 is 10 ppb.

What can I do to reduce lead exposure if I have lead service lines or plumbing?

The best way to reduce or eliminate exposure to lead through drinking water is to replace the lead service pipe or lead plumbing fixture. If you are considering replacing your lead service pipe, please contact the Region of Durham Works Department at 1-800-372-1102 ext. 3488 prior to construction. Staff can provide more information about Durham Region's Lead Service Replacement Program.

To eliminate the potential hazard posed by lead service pipes to your home, it is recommended to replace both the customer-owned and region-owned portions of the lead service pipes at the same time. If only a portion of the lead service pipe is replaced, then elevated lead levels may persist post-replacement. During this time, it is important to continue flushing the water lines before using the water for consumption or food preparation or use a lead reduction treatment device.

Lead levels increase as water stands in the pipes. Measures that can be taken to temporarily reduce exposure to lead through drinking water include:

- Flush the cold water taps in your home for approximately five minutes after a period of no use such as first thing in the morning or after coming home from work.

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- Use only cold, flushed water for drinking and food preparation as hot water has been shown to contain higher lead levels. Use a water filtration device that meets the National Sanitation Foundation (NSF) International Standard for lead reduction, NSF-53. Ensure that it is installed and maintained (or replaced) according to manufacturer instructions. To search for NSF certified drinking water treatment units and water filters, go to info.nsf.org/Certified/dwtu/, and select "Lead Reduction" from the "Reduction Claims for Drinking Water Treatment Units - Health Effects" section.

Should I be concerned about lead exposure from showering or bathing?

Health Canada does not consider skin absorption or inhalation from drinking water sources to be a significant route of exposure for lead. Showering or bathing does not result in lead exposures that would be a concern for health.

Should I boil my water to make it safe to drink?

Boiling water will not reduce the amount of lead in your drinking water. To reduce the amount of lead in drinking water, follow the precautions outlined in the section "What can I do to reduce lead exposure if I have lead service lines or plumbing?".

Who can I contact for more information on lead and lead testing?

Durham Region: durham.ca/en/living-here/about-water.aspx

Durham Region Environmental Health Helpline:

905-723-3818 or 1-888-777-9613

Durham Region Technical Support Division, Lead Service Replacement Program:

1-800-372-1102 Ext. 3488

Durham Regional Environmental Laboratory, Lead Testing:

905-686-0041

Durham Region Lead Monitoring Program:

e-mail: leadmonitoring@durham.ca or call 905-668-4113 Ext. 2059

Government of Canada: <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/water-quality/water-talk-minimizing-exposure-lead-drinking-water-distribution-systems.html>

June 12, 2019

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