Fact Sheet

January 2009

Lead in Drinking Water

How does lead get in my tap water?
The water leaving Toronto's treatment plants is lead-free. However, lead may get into the water from a number of sources as it travels to the taps in your home, such as: the underground pipe connecting your home to the water supply system (called a water service line) if it's made from lead; lead pipes used within the home; lead-based solder used to connect pipes; or fixtures. The longer water comes into contact with the lead, the more lead may dissolve into the water.

Homes constructed before the mid 1950s may contain lead service lines. Multi-residential buildings, regardless of the age of the building, do not have lead service lines.

Is lead in water harmful to my health?
Adults and children over six years of age are unlikely to experience health impacts from lead in Toronto's drinking water. However, for the developing fetus, infants and children under the age of six, the lead from a service line can adversely impact their health. Infants fed with formula made with tap water from lead serviced homes are most at risk since their lead exposure may be the highest. The health effect of concern is a subtle lowering of children's mental abilities. This effect is not noticeable to an individual or to their physician, but is detectable in scientific studies.

Why are fetuses, infants & young children at increased risk from exposure to lead?
Infants and children under the age of six are more sensitive to harm from lead because their brains are still developing and they absorb lead more easily than adults. Young children are exposed to lead from other sources as well since they tend to put toys and other objects, which may contain lead, into their mouths. Exposure to lead generally peaks at 2 years of age and then declines.

Fetuses are also very sensitive to lead. Mothers can pass lead in their blood to the fetus. Therefore, it is important for pregnant women to minimize their exposure to lead. In addition, pregnant women should ensure they get enough calcium in their diet as lead is more readily absorbed in the body if calcium levels are low.

Should I continue to breastfeed if I am concerned about lead?
You should definitely continue to breastfeed. The amount of lead found in breast milk would be much lower than in your water and would not pose a risk to the health of nursing infants.

What about bathing, showering, swimming and washing dishes and clothes?
Activities such as bathing, showering, swimming and washing dishes or clothes will not cause a significant exposure to lead. Lead in water is not easily absorbed through the skin or eyes.

What can I do to lower my exposure to lead in drinking water?
The most effective way to permanently reduce lead in tap water is to replace the pipe that connects your home to the municipal water supply system, if it's made of lead, and any lead pipes in your home. In 2007 the City of Toronto began an aggressive program to replace the municipal portion (the pipe running from the underground watermain to your property line) of all lead service lines within nine years. It is strongly recommended that you replace the private portion (from the property line to your water meter) at the same time. City contractors doing the work will contact residents before construction begins to determine if you'd like to replace your portion of the pipe at the same time. To find out when your pipes are scheduled to be replaced, call 416-338-8888.

The next best way to reduce exposure is to flush your pipes if the water has not been used for extended periods of time (e.g. a few hours, or overnight). To flush your taps, turn the tap on until the water is cold, and then let it run for at least a minute. You can conserve water by using a pitcher to store drinking water in your refrigerator rather than flushing many times a day. Other activities such as showering and flushing toilets can minimize the need to flush taps.

Use only cold, flushed water for drinking and cooking. Never use hot water from the tap for drinking, cooking, making baby formula, etc. as heated water may contain higher lead levels. Boiling water does **not** remove lead.

It is also important to reduce exposure to lead from other sources since the majority of lead exposure is usually from sources other than water.

What should I do if I know or think I have a lead water service line?
For most people, the simple flushing practice described above is an adequate measure to reduce exposure to lead in drinking water.

However, if you have an infant at home, and particularly if you make formula with tap water; if you have a child under the age of six; or are pregnant, Toronto Public Health recommends the following additional measures:

1. Check the age of your home. Only homes built before the mid 1950s are likely to have lead pipes and service lines. A licensed plumber or home inspector can identify lead pipes.

2. If your home does have lead pipes call the Toronto Water Laboratory at 416-392-2894 to get your water tested.

3. While awaiting test results, reduce your possible exposure to lead by using one of the following interim measures:

- Use a filtration system certified by the National Sanitation Foundation (NSF) to remove lead. Look for the NSF-53 mark on the label when purchasing a filtration system. Most end-of-tap filtration systems are NSF-53 certified. Be aware that some older pitcher-type devices may carry the NSF-53 label but have recently been found not to meet the standard for lead removal. For information on appropriate filters, check the NSF website at www.nsf.org or call 1-877-867-3435.

- If you do not have an end-of-tap water filter, use ready-made infant formula instead of formula made with tap water.

- If you are pregnant, or have children under 6, and do not have a filter, consider temporarily using bottled water. Check the label to make sure it does not contain lead (Pb).