



## Town of Midland Water & Wastewater Operations

### **LEAD AND DRINKING WATER – QUESTIONS AND ANSWERS**

#### **What is lead?**

Lead is a naturally occurring substance present in our soil, food and air. Lead has many industrial uses and has been used in water systems since the late 1880s. While lead can leach into drinking water from lead service lines and plumbing, the bulk of human exposure is from other sources.

Recently, there has been increased discussion in Ontario about lead in drinking water. This renewed interest has come about because some older homes with lead service lines in parts of the province were found to have elevated levels of lead in their water when samples were taken at the tap.

#### **How do I know if I have lead pipes / lead service lines in my home?\_**

Older homes built prior to the mid-1950s are more likely to have lead pipes and service lines.

If your home was built between the mid-1950s and 1989, you likely don't have lead pipes or service lines, but there might be lead in some fixtures or solder used to connect your pipes.

Homes built after 1989 are unlikely to have any lead in pipes, service lines, solder or joints.

#### **What should households with children the age of 6 and under and pregnant women do if they have lead service lines?**

If your water has been shown to have lead levels **below** the standard of 10 micrograms per litre, it is recommended that you run your water for at least 5 minutes after an extended period of non-use. Filtration systems or bottled water are not needed for lead reduction.

If your water has been shown to have lead levels **above** the standard of 10 micrograms per litre, children and pregnant women should use an approved filtration system to reduce lead or use bottled water. **This recommendation is particularly important for infants whose formula is prepared by adding tap water to liquid concentrate or powder.**

### **Why is lead a concern specifically for children the age of 6 and under and pregnant women?**

**Children the age of 6 and under:** Younger children are still developing and are therefore more sensitive to the neurological and blood effects of lead. As well, children in general absorb lead more easily than adults. Particular recommendations are made for formula-fed infants because the water used to make the formula can contribute 40 – 60% of an infant's lead intake; drinking water in older children and adults only contributes approximately 10% of total lead intake.

**Pregnant women:** Pregnant women can pass lead in their blood to their fetus during pregnancy. Lead levels for pregnant women should be kept as low as possible.

### **What should those who have lead service pipes do if they have only older children and non-pregnant women in the house?**

Run the water from the drinking water tap if it has been sitting in the pipes for 6 hours or more. Water should be flushed for at least five minutes.

Use cold, flushed water for drinking and preparing food. Water from the hot water tap should not be consumed as heated water generally contains higher lead levels.

### **Do older children and non-pregnant women need to use filtered water or bottled water if they have lead service pipes?**

Generally, no. Older children and non-pregnant women usually get only a small percentage of their lead from water. In young children, lead exposure can also come from eating dirt and dust from the environment. Levels slightly over the acceptable level of 10 micrograms per litre are very unlikely to increase blood lead levels in children or adults.

### **If I have lead service lines, can I use the water for bathing, showering, and washing dishes and clothes?**

Yes. Activities such as bathing, showering and washing dishes and clothes will not cause undue exposure to lead. Lead in water is not easily absorbed through the skin or mucous membranes.

### **What should I do if I live in a house with lead service lines?**

Run the water from the drinking water tap if it has been sitting in the pipes for 6 hours or more. Water should be flushed for at least five minutes.

Use cold, flushed water for drinking and preparing food. Water from the hot water tap should not be consumed as heated water may contain higher lead levels.

### **Does Ontario have a drinking-water quality standard for lead?**

Yes. The Ontario drinking water quality standard for lead is 10 micrograms per litre or 10 parts per billion, which is based on a national standard. The drinking water regulatory limit is based on a conservative (more protective) estimate of how much lead in drinking water can contribute to a child's total exposure to lead from all sources.

### **How does lead in water affect health?**

Young children are more sensitive to the effects of lead because they are still developing and able to absorb ingested lead more easily than adults. Long-term exposure to lead above the standards may increase the risk of subtle impairment of learning capacity and intellectual development. Pregnant women need to limit their lead intake as much as possible to protect the fetus.

### **How does lead get into drinking water?**

Lead above Ontario's standard in the drinking water of a home or establishment likely originated from the lead pipes servicing the premises or solder or fixtures containing high percentages of lead in the plumbing.

The amount of lead leaching into drinking water from these components depends largely on how corrosive the water is. In homes where the plumbing contains lead and the water is corrosive, extended contact between standing water and the components can cause the lead to be released from the pipes. When the tap is turned on, water that has been standing in the pipes may have accumulated lead levels higher than Ontario's standard.

**For more information:**

**CALL 1-800-565-4923**

**[www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)**



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