



Hamilton

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## **Fact Sheet**

### **How Are People Exposed to Lead?**

People are exposed to lead from water, food, soil, air and many consumer products including old paint, old water pipes, plumbing solder, some ceramics and pottery, and crystal glassware. While general human exposure to sources of lead has decreased in recent decades as sources have been reduced or removed (the removal of lead from gasoline for example) research into long term lead exposure suggests that sources of lead exposure in day to day living should continue to be further reduced or eliminated wherever possible. This includes drinking water, which is estimated to contribute 10% of our total average lead exposure. With the goal of further reducing the potential for long term exposure to lead from drinking water the level of allowable lead concentration in drinking water in Canada was lowered in 1992 from 0.50 milligrams per litre (mg/L) or 50 parts per billion to 0.010 mg/L or 10 parts per billion. This level was adopted by Ontario for its Drinking Water Standards.

The Maximum Allowable Concentration (MAC) for lead in drinking water in Ontario is 0.010 milligrams per litre (mg/L). This level is based on long-term effects and is applied for average concentrations in water consumed over long periods of time. Short-term consumption of drinking water with lead concentrations above the MAC does not necessarily pose a risk to human health. The present MAC for lead in drinking water is to reduce overall exposure to lead from all environmental sources of exposure, especially in groups with higher susceptibility. These are: children under the age of 6, pregnant women, and women planning a pregnancy. They are at increased risk because lead is harmful to developing brain and nervous system tissue.

### **Health Effects of Lead**

Lead builds up in certain body tissues and organs, and is toxic to the central nervous system (CNS). Adverse health effects can occur from short-term exposure to high levels of lead, or long-term exposure to low levels of lead.

Symptoms of long-term exposure to low levels of lead in adults can be very subtle, and can include anemia, impaired kidney and nervous system function. Children, fetuses and pregnant women are most at risk of adverse health effects from lead exposure because lead can cross the placenta, the blood brain barriers and the CNS of young children as they are still developing in the early years of life. Low levels of lead exposure have been shown to impair the physical and mental development of children.

### **Should I go see my doctor?**

There is not a need to see your Doctor.

### **What are Public Health Services recommendations?**

FOLLOW the advice as provided in the Lynden Drinking Water Advisory

DO NOT heat or boil water to remove lead. Lead concentration in the water can increase as some boiled water evaporates.

Lynden residents who receive drinking water from the Lynden municipal system can use a water filter or bottled water to ensure the tap water has acceptable lead concentrations. Public Works will be providing water filters that meet NSF Standard #53 for lead removal upon request. These filters can be used as a temporary intervention and should reduce the tap water lead concentrations to acceptable levels, provided the filter is used according to the manufacturer's instructions. Residents who wish to receive one of these filters are asked to contact Water/Waste Water Customer Service at 905-546-4426.

### **When making breast milk substitute (Formula)**

Bottled water or a known safe alternate source of water should be used for making breast milk substitute (formula). It is important to bring the water to a hard rolling boil for two minutes and cool before mixing with the breast milk substitute.

This follows the usual recommendations for preparing formula for infants under four months.