

WHAT'S THE STORY ON LEAD IN YOUR DRINKING WATER?

INTRODUCTION

The City of Portage la Prairie has an ongoing drinking water review program and continues its effort to ensure the City's treated water meets current treatment guidelines.

Lead is a common element found throughout the environment. The primary concern of health scientists related to low level exposure to lead is its potential impact on children, possibly resulting in small changes in intelligence, behavior and performance. Over the years lead levels can build up in the human body with continued exposure and this is considered unhealthy. Drinking water is a minor source of lead which contributes 5-10% of a person's total lead intake. Major sources of lead include discharges to air which affect food, dust, and soil; lead based paints; and certain types of glazes used on porcelain and pottery.

LEAD IN DRINKING WATER

Portage la Prairie's raw water supply originates from the Assiniboine River which contains very low, nearly undetectable levels of lead. The treated water leaving the water treatment plant also has extremely low concentrations of lead, well below the new Canadian Drinking Water Guideline of 0.005 mg/l. Lead dissolves into drinking water after it comes in contact with plumbing materials having lead in them. The longer the water stands in the plumbing system, the more lead that can dissolve into it.

Materials contributing to lead in water from water plumbing systems are:

- Lead water service connections (pipes)
- Lead-based solder
- Brass faucets

WHAT'S BEEN DONE?

In March 2019, Health Canada set new regulatory guidelines for lead in potable water. The new Canadian Drinking Water Quality Guideline maximum acceptable concentration for total lead was lowered from 0.010 mg/l to 0.005 mg/l. The Federal Government banned the use of lead solder for drinking water plumbing systems in 1989. The City of Portage la Prairie takes quarterly water samples and continues to monitor for metals in drinking water.

THE PORTAGE LA PRAIRIE SITUATION

LEAD WATER CONNECTIONS

Water connections are the pipes that carry water from watermains to individual residences. In the City of Portage la Prairie, there could be up to 1000 lead water connections in older parts of the city. This is about 15% of the total number of connections in the city. Your residence will likely not have a lead water connection if it was built in the 1950's or later. You can check your service line on the incoming side of the water meter. Lead service lines are grey in color. Newer service lines are copper. If the line is painted, the paint can be removed with a knife. Scratched lead will appear silver in color.

Currently there are approximately 340 homes with verified lead water service lines. It is expected that there could be a few to several hundred more homes with lead water service line. These homes are mainly in the central and eastern areas of the city.

ACCEPTABLE LEAD LEVELS

A home with a lead service line, after several hours of no water use, typically exhibits a peak lead concentration of 0.005 mg/l to 0.02 mg/l, however, after 5 minutes of flushing, lead concentrations are typically less than 0.001 mg/l which is five times lower than the Canadian Drinking Water Quality Guideline of 0.005 mg/l.

For the homes with lead water service connections, flushing for two to three minutes is recommended to clear water from the household plumbing, and service line. The longer the water stands in the plumbing system, the greater the potential is for lead to dissolve into the water.

COPPER SERVICE LINES

From preliminary testing in Portage la Prairie, lead solder in copper water pipes does not appear to result in significant levels of lead in tap water. Flushing the system for a short period of about 30 seconds (4 to 10 liters) after extended periods of non-use will reduce lead concentrations to very low levels, well within the Canadian Drinking Water Guidelines. If your home was constructed after 1989, it should not contain lead based solder.

HEALTH EFFECTS

All ages can be affected; however, lead is of greatest concern for pregnant women and young children because infants and children are more susceptible to its harmful effects on neurodevelopment, behaviour and intelligence. In adults, lead exposure can also increase blood pressure or cause kidney problems. Customers need not be unduly concerned about lead in their water, since precautions can be taken to minimize the risk.

TIPS TO REDUCE LEAD CONSUMPTION AND CONSERVE WATER

1. Avoid drinking water that has been standing in the water plumbing system for long periods of time, such as overnight or the workday.
2. “Flush” your tap water before drinking or cooking by letting it run until it is cold. A practical way of flushing the water plumbing system without wasting water is by using the toilet or taking a shower first.
3. Once the water piping has been flushed, fill a container with drinking water and keep it in the fridge. Water flushed from the water plumbing system should not be wasted – collect it and use it for washing dishes or watering plants.
4. Avoid drinking or cooking with water from the hot-water tap. If you need hot water for drinking, use water from the cold tap and heat it.
5. Do not use lead solder (commonly displayed as 60/40 or 50/50 solder) on plumbing systems for drinking water.

If you have a lead service connection, consider the use of a commercially available in-line or jug-type carbon filter for drinking water. When used properly, these filters will reduce lead concentration to acceptable levels.

WHAT IS PORTAGE LA PRAIRIE DOING?

The City has control measures in place for reducing lead in drinking water.

The City of Portage la Prairie currently monitors the “stability” of its treated water and makes treatment adjustments to minimize the corrosiveness, or tendency to dissolve lead into the water. However, due to the nature of the City’s water, it is slightly corrosive at certain times of the year.

Another possibility to reduce lead is the replacement of the lead water service connection. If you have a lead water service connection, you may choose to have it replaced. The City is responsible for the water connection between the water main and the curb stop valve at the property line. The property owner is responsible for the water connection from that point to the house. If the City is making an excavated water pipe repair, the City will replace the lead connection for which it is responsible. You will be advised when this work is being done. You may save some money by having your portion of the connection replaced at the same time. To do this work, you must hire a plumbing contractor licensed by the City. Alternate chemical treatment strategies are being used to prevent the leaching of metals like lead, copper and other piping material.

The City has a program to raise the pH of the water as it leaves the Water Treatment Plant. This helps to keep the water level from becoming acidic and thereby reduces the corrosivity of the water.

Lead in drinking water is not unique to Portage la Prairie. Many cities in North America and Manitoba, including Winnipeg, also experience lead in their drinking water.

The City of Portage la Prairie will continue to work with the Drinking Water Office to produce a safe drinking water for all.