

Frequently Asked Questions – Lead

1. What is a lead water service connection?

A water service connection is the small-diameter pipe (usually less than 2 inches) that connects the water supply system located in the street to buildings. This pipe is usually made out of lead or copper.

The water service connection consists of two sections: the one that is owned by the City and the one that belongs to the owner of the residential building. The boundary line between the public and private sections is the property line. Both sections may be made out of lead; however, the section of the water service connection belonging to the owner may not be made out of lead and the section owned by the City may be, or vice versa.

2. How can I find out whether my building has a water service connection made out of lead?

If you live in a building with 8 housing units or less that was constructed before 1970, your water service connection may well be partially or completely made out of lead. However, even if this pipe is made out of lead, it doesn't necessarily mean that it isn't in keeping with the standard on lead content in your drinking water.

To find out whether your water service pipe is made out of lead, locate the valve where the water comes into your building and take a look at the pipe: Lead is grey in colour; makes no sound if you knock on it and leaves metallic marks when you scratch it. In addition, it doesn't attract a magnet. An analysis of the water may also be carried out to check for the presence of lead in the water.

3. Who can analyse my water?

There are no do-it-yourself kits that can be used to analyse the lead content in your water. Residents who want to have their drinking water analysed must do so at their own expense by contacting a certified laboratory to measure the lead content in the water. An updated list of the certified laboratories is available on the website of the [Ministère du Développement durable, de l'environnement et de la Lutte contre les changements climatiques](http://www.ceaeq.gouv.qc.ca/accreditation/pala/lla03.htm) (<http://www.ceaeq.gouv.qc.ca/accreditation/pala/lla03.htm>) (MDDELCC). The laboratories are listed there by administrative region and you must make sure that the laboratory selected is certified for analysing lead in drinking water (*domaine #11*).

As for the City, it sets up a targeted sampling plan in the streets where work projects are scheduled in order to make arrangements for such operations as efficiently as possible; however, the City is unable to respond to all requests made by residents.

4. What should I do if my building has a lead water service connection?

It is important to point out that the *Direction régionale de santé publique du CIUSSS du Centre-Sud-de-l'île-de-Montréal* (DRSP) considers the health risks associated with the presence of lead in the tap water of buildings that have a lead water service connection

to be low and limited to pregnant women (to the unborn child) and to children under 6 years old.

In order to reduce this low risk to the minimum, the DRSP recommends considering the use of a filtration device certified under NSF/ANSI (Standard 53 specifically for lead) or consuming bottled water. This precaution mainly applies to infants fed commercially prepared infant formulas reconstituted with tap water (concentrated milk, powdered milk).

Simple actions may also be included in our day-to-day habits and help limit exposure to lead:

1. Let the tap water run a few minutes after it becomes cold (cool in summer) before drinking it, especially if it has stayed in the pipes for many hours (in the morning or on your return home from work).
2. After letting the tap water run, fill a pitcher with water, which may be kept in the refrigerator for a few days.
3. Always use cold water for cooking food or preparing drinks (coffee, tea, pasta, steamed vegetables, etc.).
4. Regularly clean your faucet aerator (filter).

We also recommend that residents replace the lead water service pipe that connects their building to the City's water supply system, in order to eliminate all sources of lead. It should be noted that even if the water service connection (pipe) is made out of lead, that doesn't necessarily mean that it isn't in keeping with the standard. It is up to each building owner to make that decision; there are no obligations to have the pipe replaced.

Please note, as well, that if an owner decides to replace the lead water service pipe that connects his property to the municipal water supply system, the City—within its regular infrastructure renewal program—will, at the same time, replace the section of the pipe located on public property.

5. Should I worry about the quality of the drinking water?

The drinking water produced and distributed by Ville de Montréal's water supply system is of excellent quality and is in keeping with the Québec government's regulations on the maximum permissible lead content. However, when this water remains stagnant in the lead water service connection for a certain period of time, some lead may dissolve in the water, thereby increasing the concentration of lead in the tap water. The City is committed to eliminating all lead water service connections on the public side over a time span of twenty years. In order to eliminate all sources of lead, Ville de Montréal also recommends that owners replace the private section of the water service connection if it is made out of lead.

6. Since when has Ville de Montréal been aware of the problem relating to water service connections made out of lead?

In June 2004, a resident in the Borough of Saint-Laurent had a water analysis carried out by a private laboratory and the lead content measured was higher than the standard of 10 µg/L. She then submitted a request to the Borough and informed the MDDELCC. The Borough therefore took samples of the drinking water and these samples indicated,

in the fall of 2004, that her tap water contained lead in concentrations exceeding the current standard of 10 µg/L, but in keeping with the old standard of 50 µg/L.

Following the studies and analyses that were carried out, it was determined that wartime and post-war houses as well as buildings with 8 housing units or less constructed before 1970 may well have a water service connection that is partially or totally made out of lead.

7. I already received a letter in 2007. What has been done since then?

Since 2007, the City has set up a pilot project in the Borough of Saint-Laurent, in order to develop a sampling procedure. Every summer since then, between 1,000 and 1500 analyses have been carried out all over the island of Montréal to detect water service connections made out of lead, within the scope of operations planned on its infrastructures (waterworks, roads). The public sections of water service connections identified as being made out of lead are then replaced when the infrastructure work is carried out. To date, over 8,000 public sections of water service connections have been replaced because they were made out of lead.

8. I received a letter from Ville de Montréal regarding lead water service connections. What should I do?

Even if you have received a letter of information regarding lead water service connections, it doesn't mean that you have one. There are 139,000 buildings in the city of Montréal (150,000 on the island) that may have a lead water service connection and that therefore received the letter. Out of that number, it is estimated that only 60,000 in the City (75,000 on the island) may, in fact, have a water service connection made out of lead.

If you received the letter, we advise you to check (or have someone check for you) and see whether your water service connection is made out of lead, and if it is, to follow the recommendations indicated in the letter.

9. My neighbour received a letter from Ville de Montréal, but I didn't. Should I be concerned?

There are 3 reasons that may explain why you didn't receive any letters:

1. Your building doesn't correspond to the criteria for the possible presence of a lead water service connection.
2. Your water service connection has already been replaced.
3. An analysis of your water has already been carried out by the City and has confirmed that there is no lead.

10. Where in Montréal are the buildings that have a lead water service connection?

There are no lead water service connections in the boroughs of Saint-Léonard, Pierrefonds-Roxboro and Île-Bizard-Sainte-Geneviève, nor in the following related municipalities: Baie-D'Urfé, Beaconsfield, Dollard-des-Ormeaux, Dorval, Île Dorval, Kirkland, Pointe-Claire, Sainte-Anne-de-Bellevue and Senneville. Everywhere else, there is a possibility of lead water service connections.

11. Is lead present only in drinking water?

Due to its presence everywhere in its natural state and its large-scale use in consumer products, lead is now widespread in our environment: food, air, soil and dust. We are all exposed to small amounts of lead, which are absorbed and distributed in our body, especially in our blood, bones and certain tissues. Nevertheless, at the present time, we are much less exposed to lead than in the past. In fact, over recent decades, the enforcement of more restrictive standards has helped eliminate practically all lead from gasoline, cans of food, paint, plumbing soldering and other materials.

12. What are the health risks?

Lead is recognized as having adverse effects on human health. In low concentrations, it mainly affects the nervous system and may result in minor effects on the intellectual development of infants and children under 6 years of age. The latter are more vulnerable because they are growing fast. And similarly for the foetus of pregnant women.

Among young children, the health-related effects of lead associated with exceeding the blood lead concentration threshold, considered to be high by public health authorities (100 micrograms per litre of blood or 100 µg/L of blood), are said to be neuro-behavioural in nature (a decrease in a child's learning capacity and intellectual development). The DRSP estimates that the average levels of lead in the blood of children living in a house with a lead water service connection on the island of Montréal and drinking the tap water do not exceed 100 µg/L of blood, unless they are exposed to other major sources of lead. Moreover, there have never been any reports of such blood lead concentration associated with the presence of lead in the drinking water on the island of Montréal.

Babies have greater sensitivity to the toxic effects of lead and may be more exposed than older children, particularly if they are fed commercially prepared infant formulas reconstituted with tap water (concentrated milk, powdered milk).

Young children are also vulnerable to lead in the water due to the fact that they more efficiently absorb lead than adults, that they are subject to dietary deficiencies that promote absorption of lead and that they are more sensitive hematologically (in a blood-related way) and neurologically than adults.

The foetus is considered to be more vulnerable because, during pregnancy, part of the lead accumulated by the mother makes its way through the placental barrier to reach the foetus. Nevertheless, the mother would herself have to have a high blood lead concentration for the risk to be high for the foetus.

As for nursing mothers, the public health warning is of no concern to them, as the amount of lead in mother's milk is not a risk to the health of their infants.

13. Is Montréal the only municipality affected by this problem?

No. The problem is found in many other cities in Québec, including Québec City, Laval and Shawinigan, among others, and all over the world (elsewhere in Canada, the U.S., Europe...).

However, Montréal has closely teamed up with researchers in this field, and in particular, with Polytechnique Montréal's drinking water Chair (*Chaire en Eau Potable*). And this research collaboration is making Montréal a leading city in research and development in relation to lead water service connections.

14. What actions are being taken by Ville de Montréal to resolve the problem of lead water service connections?

Ville de Montréal and the related cities concerned (Côte-Saint-Luc, Hampstead, Montréal-Est, Montréal-Ouest, Mont-Royal and Westmount) have made a commitment to eliminate, over a period of 20 years, the public section of lead water service connections on the territory of the island of Montréal and to encourage owners to change their private section. The replacement is being made together with the other waterworks or roadwork projects planned.

However, this work concerns only the replacement of the public section, located between the water main and the property line. The private section (between the residential building and the property line) comes under the responsibility of the building owner and it is therefore up to the building owner to decide whether or not to replace that section of the water pipe.

Despite the low health risks, the City is recommending that residents replace the lead water service pipe that connects their property to the City's system, in order to eliminate all sources of lead. Recent studies conducted by Polytechnique Montréal and the Canadian Water Network seem to show that the replacement of half of the pipe is not sufficient to significantly reduce the concentrations of lead in tap water.

15. What are Ville de Montréal's priorities in replacing lead water service connections?

Wartime houses are small, single-family houses built after World War II (in the late 1940s and early 1950s) that have a long but small-diameter water service connection, as a result of which the lead concentration measured in the tap water is higher, on average, than in the other types of houses and often higher than the 10-µg/L standard. Ville de Montréal therefore decided to target these homes as a priority and to replace all public water service connections of wartime houses, within a time span of five years.

16. Why is Ville de Montréal changing only the public section of my lead water service connection?

The private section of the water service connection belongs to the owner of the building, and therefore, the City doesn't have the right to replace it.

17. Do I have to cover the cost of having the water service connection in my building replaced?

If you decide to have the private section of your water service connection replaced, this will have to be done at your own expense. For a residential building located approximately 6 metres from the property line, we estimate that the approximate cost would be between \$2,000 and \$2,500.

This cost depends on the length of the water service connection to the property line and the landscaping in front of the house (lawn versus sidewalk, tree or plant clusters, paving stone). Of course, this is a very approximate estimate and each owner must have an estimate made by a private contractor before finalizing a contract.

18. Am I eligible for financial assistance or a grant to have the lead water service connection replaced in my building?

No. There is no existing program of this kind in Montréal.

19. What should I do if I want to have the lead water service connection replaced in my building?

If you want to have the private section of your water service connection replaced, you will have to contact your borough (by phoning 311), where you will be given the procedure to follow and what permits to obtain (excavation permit, land-use occupancy permit...). Then, you will have to find a contractor who is qualified to do this type of work.

20. I am a tenant of a building with a lead water service connection. What should I do?

We recommend that tenants contact their owners to reach an agreement on replacing the water service connection. However, since replacement is not mandatory, the owner may refuse to do so. In such a case, tenants have the option of contacting the Régie du logement to find out what possible recourses they may have.

21. Can I use my water for cooking or drinking if my building has a lead water service connection?

Even if there is a lead water service connection, the lead content in the water is not inevitably over the permissible limit. It is important to note that no building exceeded the former standard of 50 µg/L, which was in force up until 2001.

Based on the findings of analyses conducted in 2005-2006, 55% of the buildings analysed met the standard of 10 µg/L. On average, in cases where the standard of 10 µg/L was exceeded, findings of 14 µg/L were observed. If the same analysis is carried out with the campaigns conducted by the laboratory between 2007 and 2014, 413 houses were tested for lead in their drinking water and 127 of them (or 30.8%) exceeded the standard of 10 µg/L, by an average of 5 points, with findings of 15 µg/L.

The *Direction régionale de santé publique* of Centre-Sud-de-l'île-de-Montréal (DRSP) has assessed the health risk associated with the presence of lead in the tap water of

buildings with a lead water service connection on the island of Montréal. It considers this risk to be low and limited to pregnant women (to the unborn child) and to children under 6 years old.

The DRSP recommends that pregnant women and parents of children under 6 years old consider:

- using a pitcher water filtration system, a filter attached to the tap or a filter under the sink; these devices must be certified under NSF/ANSI Standard 53 for lead reduction

or
- consuming bottled water

This precaution would be particularly appropriate for babies fed with commercially prepared infant formulas reconstituted with tap water (concentrated milk, powdered milk).

Ville de Montréal reminds you that simple actions should already be part of your day-to-day habits:

1. Let the tap water run a few minutes after it becomes cold (cool in summer) before drinking it, especially if it has stayed in the pipes for many hours (in the morning or on returning home from work).
2. After letting the tap water run, you can fill a pitcher with water, which may be kept in the refrigerator, for consumption purposes, for a few days.
3. Always use cold water for direct consumption as well as for preparing food, reconstituted milk and drinks (including water for cooking).
4. Regularly remove debris that may accumulate in the aerator (filter) of your faucets.

Despite the low health risks, the City suggests that residents replace the lead water service pipe connecting their property to the City's water supply system, in order to eliminate all sources of lead.

If you would like more health-related information, we advise you to contact:

Info-Santé

811

santemontreal.ca/eaupotable (and click on English)

22. Who can I contact if I am worried about this situation for my own health or that of a loved one?

If you would like to have more health-related information, we advise you to contact:

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811

santemontreal.ca/eaupotable (and click on English)

23. Have there been any cases of lead poisoning in Montréal?

No cases of lead poisoning have ever been reported in Montréal.

24. My building has a lead water service connection. Do I need a special filter?

You may use a pitcher water filtration system, a filter attached to the tap or a filter under the sink; it is important to ensure that the NSF / ANSI Standard 53 is indicated on the packaging, and specifically mentions lead reduction.

Various water treatment systems help reduce the lead concentration in tap water to a level that is below the standard, whether a pitcher water filtration system, a device attached to the tap or under the sink. Regardless of the type of product used, it is important to fully follow the manufacturer's instructions on its installation, operation and maintenance—for example, the frequency of replacing filters.

25. How can I obtain a filter?

Filtration devices as well as replacement cartridges are available at hardware stores and certain big-box stores.