



District of Wells

PO Box 219, 4243 Sanders Avenue, Wells, BC, VOK 2R0

Phone--250-994-3330 Fax--250-994-3331 www.wells.ca

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Information Notice—Lead in Water

(Courtesy of Northern Health)

What are the effects of lead?

Exposure to lead can be hazardous to human health, even at very small amounts. Lead exposure is most serious for young children because they absorb lead more easily than adults and are more susceptible to its harmful effects. Further, it is important to note that while we have no evidence of children being adversely affected in B.C., it is nonetheless important to reduce population lead exposure.

How does lead get into drinking water?

Drinking water supplies generally do not contain lead and if lead is present in water, the concentrations are extremely low. If elevated levels of lead are found in tap water, the source is generally from plumbing materials that contain lead or brass, including:

- lead pipes or connections (including service connections to buildings and homes);
- lead-containing solder; or
- brass materials such as valves, fittings, and fixtures.

Lead pipe service connections have been used to deliver water to buildings and homes since the late 1800s. Older buildings and homes (generally those built before 1955) are more likely to have lead connections. Buildings and homes built between the mid-1950s and 1989 are not likely to have lead pipes or service lines, but might contain lead in some fixtures or solder used to connect the pipes. The National Plumbing Code restricted the use of lead solder in new plumbing or in repairs to plumbing for drinking water supplies in 1989. This means that buildings and homes built after 1989 are unlikely to have any lead in pipes, service lines, solder or joints.

The amount of lead from the plumbing system that may be dissolved in drinking water depends on several factors, including the acidity (pH), water softness, and standing time of the water. Generally, it is the soft, slightly acidic water and low alkalinity often found in coastal areas that is more likely to contribute to the leaching of lead into drinking water from lead pipes/connections, lead solder and brass plumbing materials. Extended contact between standing water with these characteristics and lead plumbing gives rise to elevated levels of lead within a building's water distribution system.



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Responding to Elevated Lead:

If elevated lead levels are found, there are a number of actions that can be taken to reduce lead levels. These options may include both short- and long-term solutions.

Short-term solutions may include:

- **Providing bottled water:** Bottled water may be provided for students and staff for drinking purposes, cooking, preparing beverages, etc.
- **Installing point-of-use filtration units:** There are several certified devices that will reduce lead in water through filtration or absorption. Before purchasing any treatment unit, administrators of schools with elevated levels of lead should consult a water treatment specialist to determine which system is best suited to their needs. Any filtration or water treatment product should meet the NSF International certification for reducing lead, or another certification body that is accredited by the Standards Council of Canada.
- **Daily Water Line Flushing:** Run the water from all drinking water taps in the morning(s) before the school is open for the day.
 - Flush until water is cold:** Water should be flushed until the water is cold.
 - Starting point:** Water should be flushed starting at the last tap on each branch of pipe in the building's water distribution system.
- **Other taps:** After flushing the last tap on each branch of the water distribution line, the water is flushed at every tap that drinking water may be drawn from (e.g., taps in the staff coffee room, home economics room, kitchen, canteen room and fountains). Use cold, flushed water for drinking and preparing food. Water from the hot water tap should not be consumed as hot water contains higher levels of lead.
- If flushing is chosen as the mitigation measure, it is recommended that signage be posted near the taps where water may be drawn for human consumption. The signage should advise users to flush until the water is cold.

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Long-term solutions may include:

Implementing a corrosion control program: Implementing corrosion control programs at the community or at the point of entry into the building to adjust pH to reduce the likelihood of lead leaching into water is one of the long-term solutions. This will also extend the longevity of the building's water distribution system.

Replacing lead containing plumbing components: Lead containing plumbing components (e.g., old lead pipes/connections to the building, lead-containing solder, brass materials such as valves, fittings and fixtures, etc.) should be replaced with low-lead alternatives.