

April 21, 2016

Protecting Children from Lead in Drinking Water at Child Day Care Facilities

Lead can be harmful to human health, even in very small amounts. Lead is most serious for pregnant women and young children because infants and children absorb lead more easily than adults and are more susceptible to its harmful effects, such as effects on behaviour and intelligence. The public's exposure to lead has decreased over the years as major sources of lead have been eliminated and we have no reported cases of children being adversely affected by lead in drinking water in the Vancouver Coastal Health (VCH) region. Nonetheless, it is important for child day care providers to keep lead exposure as low as possible, particularly for children and pregnant staff.

Drinking water is one possible, but not the only, source of lead. Lead-based paint in older homes is another potential source – further information is available at: <http://www.healthlinkbc.ca/healthfiles/hfile31.stm>. The current guideline for lead in drinking water is a maximum acceptable concentration of 0.010 mg/L (10 ppb). Most drinking water supply systems in B.C. have very low levels of lead. However, many water systems in the South Coast of B.C. have soft (low in hardness), and slightly acidic (low pH and alkalinity) drinking water. When this type of water sits unused in building piping, such as overnight or over weekends, lead can be released from the plumbing into the water. This is particularly true for older homes and buildings that may have lead or brass plumbing fixtures or fittings, or lead – containing solder. Some water systems have measures in place to help counter this problem. VCH is working with the operators to evaluate the effectiveness of these measures.

Water sampling results from child day care facilities in various VCH communities indicate that once sitting water is flushed, lead levels return to safe levels below the maximum acceptable concentration, even when the levels were elevated prior to flushing. However, it is difficult to predict which child day care facilities require flushing based on the age of the building, or maintenance and renovation history.

What You Need To Do as a Child Day Care Operator

- Develop a plan to ensure your facility can provide water to children under your care and your staff that meets the Guidelines for Canadian Drinking Water Quality standards. Do baseline water quality tests that include pre and post-flush water samples. For facilities constructed after 1989, a baseline water quality test may be all that is required to ensure lead concentration is below the guideline level. VCH Environmental Health Officers can advise you of the appropriate private laboratories that can do the testing for you at a cost.

- Based on results of water quality tests, you may be required to flush taps and fountains used for drinking water on a daily basis. If required, the flushing needs to take place every morning before children arrive.
- VCH staff will work with all facilities to ensure that sampling and flushing procedures are managed properly.
- Use only cold water that has been flushed for drinking, cooking and making baby formula.
- Once the lines have been flushed, water can be collected and stored for drinking in a suitable container and kept refrigerated to minimize repeated unnecessary flushing.

Note: Daycares on water systems with corrosion control measures may not require flushing. VCH will adjust our advice as we evaluate these systems.

In B.C., screening people’s blood for lead is not generally recommended. If parents are concerned about their child’s current or past exposure to lead, advise them to discuss their concerns with their family physician.

For more information you can visit this Health Canada web page:
<http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/lead-plomb-eng.php>

To speak to a VCH Environmental Health staff, please call:

Area	Phone
Central Coast	604-983-6700
Powell River	604-485-3310
Sechelt	604-885-5164
Vancouver	604-675-3800
North Vancouver	604-983-6700
Richmond	604-233-3147
Squamish	604-892-2293
Whistler	604-932-3202