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June 27, 2016

RE: Question about lead in drinking water in Surrey District schools

General Health Information

Lead is a metal that is found naturally in the earth's crust. Everyone is exposed to low levels of lead through food, tap water, air, dust, soil, and some consumer products. Lead was once used in products like toys, paint and plumbing materials, but the Government of Canada now restricts its use in many products.

The health impacts of lead exposure depend on many factors including the frequency, duration, and dose of the exposures to a variety of lead sources, as well as individual factors such as age, previous exposure history, nutrition and health. However, as there is no “safe” level of lead and as long term exposure could impact growth and development in young children, we always strive to reduce the amount of exposure to lead from all sources (including drinking water) to as low as possible, wherever we can.

Drinking water generally does not contain lead, and if lead is present in water, the concentrations are usually extremely low. The current guideline for lead in drinking water is a maximum acceptable concentration of 0.010 milligrams/Litre (10 parts per billion). When elevated lead levels are found in drinking water it is due to a combination of water chemistry, plumbing materials (containing lead or brass), and extended contact time between the water and plumbing materials. Coastal communities tend to have water properties that leach lead from older piping infrastructure.

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. In recent years, Metro Vancouver has made changes to the water treatment process that has decreased the acidity of the water. We expect this treatment upgrade program to reduce, although not eliminate, the presence of metals at the tap. Lead in drinking water is a concern in many schools, particularly those built before the 1989 revision of the B.C. Plumbing Code restricting the use of lead in potable water lines.

At present, we are aware of no reported cases of children being adversely affected by lead in drinking water in the Fraser Health region.

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For more information on the health effects of lead, visit Health Canada website below:

http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/lead-plomb-eng.php

What to do if you find elevated lead levels in drinking water

Although the human health risk is small, it is prudent to minimize the risk by at least meeting the Canadian Drinking Water Guidelines. To achieve this, when the water in a particular faucet has not been used for six hours or longer, cold-water pipes should be flushed by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in the pipes, the more lead it may contain. Use only water from the cold tap for drinking and cooking as hot water is likely to contain higher levels of lead.

How Fraser Health can support

Fraser Health staff are available to work with your staff to review water quality test results and to review school efforts to ensure that metal levels in water consumed in your schools fall within the Canadian guidelines. Fraser Health staff can also assist school districts in suggesting mitigation strategies other than flushing if elevated lead levels are found.

What parents can do

We are aware that parents have expressed concerns to you about this matter. As lead exposure is of no health benefit, any means to reduce childhood lead exposure should be considered.
Here are some actions parents can take to minimize lead exposure via drinking water in their children:

- Flush your pipes at home every morning by running the tap for a few minutes. If you are concerned about lead in your drinking water, you can test. Please contact your local health unit for more information.
- Use cold water from the tap for drinking and cooking.
- Renovations to piping in buildings could diminish lead leaching sufficiently so that the maximum acceptable concentration of lead in drinking water guidelines is not exceeded.

Other ways to reduce lead exposure include:

- Clean your house regularly to remove dust and particles that may contain lead. This is especially important for surfaces that young children might touch often.
- Do not keep food or drinks in lead crystal containers for any length of time. Do not serve pregnant women or children drinks in crystal glasses. Babies should never drink from lead crystal.
- If you own glazed glass or ceramic dishes bought outside of Canada, do not use them for serving food or drinks. They may contain higher levels of lead than are allowed in Canada.
- If you have children six years of age or under, remove any horizontal PVC (plastic) mini-blinds made in Asia or Mexico from your home.
- Discourage children from putting things into their mouths unless they are intended to be mouthed (like food and pacifiers).
- If you work in a smelter, refinery or any other industry where you are exposed to high levels of lead, shower and change your clothing before going home. Make sure you have your blood lead level checked regularly.
- Never burn waste oil, coloured newsprint, battery casings or wood covered with lead paint in or near your home, because lead fumes may be released. Dispose of them through your city or town's hazardous waste program.
- If you use lead solder in a hobby (like making stained glass), use a good quality breathing mask, keep surfaces clean and keep children and pregnant women out of the area. Wash hands after handling lead solder.
- Avoid eating wild animals that have been shot with lead bullets. Use non-lead bullets and shots when hunting for food.
- If you are concerned about exposure to lead, speak to your doctor.

(Source: http://healthycanadians.gc.ca/healthy-living-vie-saine/environment-environnement/home-maison/lead-plomb-eng.php)

If you have further questions, contact your local health unit at 604-587-3936.