

MacNair, Tara FIN:EX

From: O'Brien, Kellie HLTH:EX
Sent: Monday, April 25, 2016 5:08 PM
To: O'Brien, Kellie HLTH:EX
Subject: FW: Kitimat Physicans NW Pediatricians Lead and Copper.pdf
Attachments: Kitimat Physicans NW Pediatricians Lead and Copper.pdf

-----Original Message-----

From: Kendall, Perry HLTH:EX
Sent: Thursday, February 18, 2016 10:15 AM
To: Plank, Sarah GCPE:EX; Lake, Terry HLTH:EX
Subject: Kitimat Physicans NW Pediatricians Lead and Copper.pdf

The consensus based on testing in these schools and modelling likely consumption and the history of blood lead testing in kids from schools with higher levels of lead in DW, and the reviews of blood lead level testing and the Cdn Community health surveys, is that the increased levels in schools, while undesirable, has not and does not in and of itself, pose a risk to children at the population level.

That's not to say that we can leave the levels as are and during the 80's and the 90's most school districts across Canada took actions to test and remediate the issue.

Children who have presented with high blood lead levels in BChave had dietary exposures or exposure to folk medicines.



Northern Health Physicians Partners in Wellness

Public Health Newsletter for Northern Health Physicians

Friday, March 30th, 2012 Page 1 of 2

BULLETIN

Kitimat Physicians and NW Pediatricians: Update on recent testing for Lead and Copper in Kitimat School Water Supplies

**Please bring this to the attention of
Kitimat Physicians and Northwest Pediatricians:**

The table below summarizes the results of recent chemical testing of water in Kitimat schools. (Note: The table lists only the highest lead and copper results that were found. There were numerous taps and fountains with lower readings not included in this table).

School	Sample type	Copper (mg/L)	Lead (mg/L)
Nechako Elementary School	Pre-flush	7.57	0.141
	Post-flush	7.28	0.0189
Kildala Elementary School	Pre-flush	4.46	0.0286
	Post-flush	0.637	0.00256
Kitimat City High	Pre-flush	4.03	0.191
	Post-flush	7.01	0.0208
Mount Elizabeth Secondary School	Pre-flush	3.77	0.142
	Post-flush	5.17	0.0178
St. Anthony's Elementary School	Pre-flush	6.37	0.00754
	Post-flush	2.52	0.0051
Guidelines for Canadian Drinking Water (MAC for lead and AO for copper)		1.0	0.010

Levels were found to be elevated above the Maximum Acceptable Concentration (MAC) for lead, and the Aesthetic Objective (AO) for copper in several schools, most notably in some of the samples taken before the taps were flushed for five minutes or more.

BCCDC has calculated that a child drinking water from the worst pre-flush sample in the table could receive up to 50% of her daily acceptable dose of lead according to Health Canada guidelines. Typically children receive about 10% of their lead intake from drinking water. In a worst case scenario where a child drinks water at home containing the same amount of lead as in the worst sample, she might receive up to 70% of her daily allowable limit for lead from drinking water alone leaving relatively little margin for lead exposure from other sources such as food or dirt. (See appended document, "Estimating Lead Intakes from School Drinking Water, Environmental Health

(Continued on page 2)

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northern health

Page 2 of 3 H1H-2016-61609
the northern way of caring

Update on Recent Testing for Lead and Copper in Kitimat School Water Supplies

(Continued from page 1)

Services, BCCDC, March 2012")

Copper levels are also significantly elevated in many of the pre-flush and even post-flush samples; however the objectives for these recommended limits are for aesthetics (taste and odor) rather than for health. There are no current MACs for copper.

The reasons for these high levels of lead and copper are twofold:

- A relatively aggressive, acidic community water supply which supports rapid corrosion and leaching of these metals into the water. (The source water for the community itself contains acceptable levels of copper and lead)
- Leaching of copper and lead from older style lead soldered copper plumbing into water standing in the pipes overnight

We are working with the School District to ensure that measures such as decommissioning the most problematic taps and fountains and ensuring that adequate flushing takes place each day are put in place immediately while they consider longer term solutions. We are also in discussion with the City about steps they can take to reduce the aggressiveness of the water supply.

The consensus with BCCDC is that these exposures in the school alone would be unlikely to be clinically significant but we do not have information on lead exposures in the home. It is probable that they would vary from household to household and from person to person.

The school district will be communicating with parents about these test results and we are also planning a news release to provide the community with consistent information including the desirability of flushing water taps at home where lead soldered copper plumbing is in place.

In view of this, you may choose to consider blood lead testing in some of your patients depending on their exposure history.

Please advise the NW Medical Health Officer of any elevated lead levels that you detect in any of your patients without a known exposure to lead other than via drinking water in the school or in the community.

Appendix:

Estimating Lead Intakes from School Drinking Water, Environmental Health Services, BCCDC, March 2012

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