

**Problems with  
the Windsor-Essex County Health Unit's  
Oral Health Report 2018  
and  
statements made by  
Acting Medical Officer of Health  
Dr. Wajid Ahmed  
on Dec. 17 2018  
in Windsor**

**Christine Massey, M.Sc.  
Fluoride Free Peel**

# Bashash et al. study: Prenatal fluoride exposure & ADHD symptoms in children in Mexico City

October 2018



**Dalla Lana**  
School of  
Public Health



UNIVERSITY OF TORONTO  
DALLA LANA SCHOOL OF PUBLIC HEALTH

## What's New

Higher levels of urinary fluoride associated with Attention Deficit Hyperactivity Disorder (ADHD) in children

*"... experts from University of Toronto, York University, National Institute of Public Health of Mexico, University of Michigan, Indiana University, University of Washington and Harvard School of Public Health..."*

*"Our findings are consistent with a growing body of evidence suggesting that **the growing fetal nervous system may be negatively affected by higher levels of fluoride exposure**"*

-- lead author Dr. Morteza **Bashash**

*"...builds off of previous research the team published on this population demonstrating that **higher levels of urine fluoride during pregnancy are associated with lower scores on tests of IQ and cognition in the school-age children**"*

<http://www.dlsph.utoronto.ca/2018/10/higher-levels-of-urinary-fluoride-associated-with-attention-deficit-hyperactivity-disorder-adhd-in-children/>

# Earlier study from Bashash et al. Prenatal fluoride exposure & lower IQ



UNIVERSITY OF  
TORONTO

MEDIA ROOM

Breaking News Experts

Latest News

Media Contacts

Visual Resources

Resources for Faculty

Search the Blue E

MEDIA RELEASES

## Fluoride exposure in utero linked to lower IQ in kids, study says

September 19, 2017

CNN | September 19, 2017

Research led by Dalla Lana's Howard Hu finds a correlation between higher fluoride levels and lower IQ scores in children. [Read more.](#)

<https://media.utoronto.ca/u-of-t-in-the-news/fluoride-exposure-in-utero-linked-to-lower-iq-in-kids-study-says/>

Study: <https://ehp.niehs.nih.gov/doi/10.1289/ehp655>

## Study: Fluoride levels in pregnant women in Canada show drinking water is primary source of exposure to fluoride

**TORONTO, October 10, 2018** – A new study led by York University researchers has found that fluoride levels in urine are twice as high for pregnant women living in Canadian cities where fluoride is added to public drinking water as for those living in cities that do not add fluoride to public water supplies.

The study “Community Water Fluoridation and Urinary Fluoride Concentrations in a National Sample of Pregnant Women in Canada” was published today in *Environmental Health Perspectives*. It is the first study in North America to examine how fluoride in water contributes to urinary fluoride levels in pregnant women. The research was conducted as part of a larger study funded by the National Institute of Environmental Health Sciences, part of the National Institutes of Health (NIH) investigating whether early life exposure to fluoride affects the developing brain.

***“The levels of fluoride among pregnant women living in fluoridated communities in Canada were similar with levels reported in a prior study of pregnant women living in Mexico City...”***

***“This finding is concerning because prenatal exposure to fluoride in the Mexican sample has been associated with lower IQ in children.”***

*-- Christine Till, lead author*

<http://news.yorku.ca/2018/10/10/study-fluoride-levels-in-pregnant-women-in-canada-show-drinking-water-is-primary-source-of-exposure-to-fluoride/>

Study: <https://www.sciencedirect.com/science/article/pii/S0160412018311814>

# Reassurance from Dr. Ahmed, Acting Medical Officer re: Bashash et al. studies, Windsor, Dec. 17, 2018

Dr. Ahmed responds to question from Councillor Kusmierczyk re the studies:

*"...this document is recently prepared by Public Health Ontario, our scientific body, and it touches on, specifically on **those studies**, and I would just say that **those studies**, and I'm quoting verbatim.."*

Then reads a dismissive quote from page 9 under *Neurobehavioral Effects* in PHO's [Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water \(2010-2017\)](#)

**Problem:** PHO's evidence review only covers literature published as of May 10, 2017 (see pg 11);  
Bashash et al. studies were published later;  
Dr. Ahmed misled Council

Video: <http://csg001-harmony.slig.net/00310/Harmony/en/PowerBrowser/PowerBrowserV2/20181218/-1/4023>

# Public Health Ontario's Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010-2017)

## Discussion and Conclusion

---

pg 11: This report is a summary of the evidence published since the 2010 Health Canada fluoride document to May 10, 2017 about the adverse health effects of optimally controlled fluoridated water, including the effects when mixed with infant formula.

### Neurobehavioral effects

pg 9: Two primary studies, one in New Zealand<sup>29</sup> and another in the US,<sup>18</sup> as well as one grey literature report<sup>42</sup> assessed the neurobehavioral effects of fluoridated water.

pg 17: 18. Bogstrand ST, Normann PT, Rossow I, Larsen M, Morland J, Ekeberg O. Prevalence of alcohol and other substances of abuse among injured patients in a Norwegian emergency department. *Drug & Alcohol Dependence*. 2011;117:132-8.

pg 17: 29. Abavare L, Abavare C. Wound botulism resulting from heroin abuse: can you recognize it? *Journal of emergency nursing: JEN : official publication of the Emergency Department Nurses Association*. 2012;38:301-3.

??

# Public Health Ontario's

## Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010-2017)

46 references; none with “fluoride” or “fluoridation” in the title.

### References

---

??

8. Amann M, Romer LM, Subudhi AW, Pegelow DF, Dempsey JA. PMC2075206; Severity of arterial hypoxaemia affects the relative contributions of peripheral muscle fatigue to exercise performance in healthy humans. *J Physiol (Lond)*. 2007;581:389-403.

pg 16: 9. Martinez D, Saccone PA, Liu F, Slifstein M, Orłowska D, Grasseti A, et al. Deficits in dopamine D(2) receptors and presynaptic dopamine in heroin dependence: commonalities and differences with other types of addiction. *Biol Psychiatry*. 2012;71:192-8.

10. Miller P, McKenzie S, Lintzeris N, Martin A, Strang J. The community impact of RIOTT, a medically supervised injectable maintenance clinic in south London. *Mental Health and Substance Use: Dual Diagnosis*. 2010;3:248-59.

11. Oviedo-Joekes E, Guh D, Marsh DC, Brissette S, Nosyk B, Krausz M, et al. Characteristics and response to treatment among Aboriginal people receiving heroin-assisted treatment. *Canadian Journal of Public Health*. 2010;101:210-2.

# Public Health Ontario's Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010-2017)

## Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use.

This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

**Feeling reassured?**



# Public Health Ontario's actual review of the 2017 Bashash et al. IQ study

[“Article Review on “Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6–12 Years of Age in Mexico”](#)

Does not contain the quote read by Dr. Ahmed.

Does contain the following, not disclosed by Dr. Ahmed:

***“Previous research in the area of fluoride exposure and neurological outcomes during childhood has often been limited by small sample sizes and/or ecological study designs. The study by Bashash et al. is a considerable improvement over previous research...”***

[https://www.publichealthontario.ca/en/eRepository/Fluoride IQ Mexico Article Review 2017.pdf](https://www.publichealthontario.ca/en/eRepository/Fluoride_IQ_Mexico_Article_Review_2017.pdf)

# Had Public Health Ontario reviewed the 2018 Bashash et al. ADHD study, at the time of the Windsor meeting?

https://www.publichealthontario.ca/en/pages/Results.aspx?k=fluoride

Search for: fluoride Search Tips Sort by: Date Of Publication (Newest)

1-10 of 13 results

- Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010-2017)**  
This review provides a summary of the 2010 Health Canada fluoride document findings and new evidence on adverse health effects of optimally controlled fluoridated community drinking water on humans, p  
2018-12-31
- Evidence Brief: Behavioural impacts of school-based oral health education among children**  
This Brief looks at the effect of school-based oral health education programs among schoolchildren for behavioural outcomes such as oral health knowledge, dietary habits, oral hygiene practices, atti  
2017-12-01
- Article review on "Prenatal fluoride exposure and cognitive outcomes in children at 4 and 6-12 years of age in Mexico"**  
Summary, assessment and key messages.  
2017-11-14
- Environmental burden of cancer in Ontario: technical supplement**  
This document contains the methods and inputs used to estimate the environmental burden of cancer from 23 carcinogens in Ontario.  
2016-08-05

**No, according to their website**

# WECHU, Dr. Ahmed, WF promoters encourage decision makers to experiment with developing brains & bodies of fetuses, infants, children

## None appear to exist:

- a single chronic toxicity study of the fluoridation agent HFSA
- a single double blind randomized controlled study of f'ed water
- a single observational study controlling for all potential confounding variables
- or even experimental proof that HFSA dissociates 100% in **tap** water as they claim

WF promoters dismiss studies that raise concern (i.e. Bashash et al.) while relying on studies of lesser quality

& encourage decision makers to conflate the absence of **perfect** studies demonstrating harm with "*proven safe with decades of research*".

# Windsor-Essex County Health Unit's Oral Health Screening Data: Based on a 10-30 second inspection

Page 27:

***“The “no touch” screening is done by a Registered Dental Hygienist. A ten to thirty second visual inspection of the child’s mouth is conducted with the aid of a sterilized mouth mirror and a light source.”***

[https://www.wechu.org/system/files\\_force/edit-resource/em-oral-health-report-2018/oral-health-2018-report-updatefinalv3.pdf?download=1](https://www.wechu.org/system/files_force/edit-resource/em-oral-health-report-2018/oral-health-2018-report-updatefinalv3.pdf?download=1)

## Health Canada on Dental Fluorosis: Caused by Fluoride Overexposure

*“a permanent hypomineralization of tooth enamel due to fluoride-induced disruption of tooth development... in people with high exposure... occurs only when exposure to fluorides happens during tooth formation”*



- Guidelines for Canadian Drinking Water Quality Technical Document Fluoride, 2010:

<https://www.canada.ca/en/health-canada/services/publicatigns/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-dgdocument-fluoride/page-3-guidelines-canadian-drinking-water-quality-guideline-technical-dgdocument-fluoride.html#a101>

## Dental Fluorosis

Public Health attitude: “Not an adverse effect”;  
publish fraudulent / misleading reports that hide actual prevalence



**Photo Source: Dr. Hardy Limeback, BSc, PhD (Biochemistry), DDS, former Head, Preventative Dentistry, University of Toronto (18 years), Former President, Canadian Association for Dental Research, author and editor a textbook in preventive dentistry (Comprehensive Preventive Dentistry – Wiley-Blackwell, June 2012), chosen to serve on the National Academy of Science’s committee that produced the 2006 report Fluoride in Drinking Water.**

# WECHU's Oral Health Report 2018: Misleading/fraudulent report of dental fluorosis

Appendix B, page 44:

*“Fluorosis (a cosmetic alteration of the appearance of the tooth enamel) is associated only with areas that have exceeded the recommended concentration of fluoride in the drinking water.”*

Executive Summary, page 8:

*“Between 2011/2012 and the 2016/2017 school year, there were no instances of moderate or severe fluorosis in children screened. “*

Table 8, page 29:

Fluorosis Index – moderate or severe fluorosis *+ (%)	0	0	0	0	0	0	0% -
--	---	---	---	---	---	---	------

**Source:** Oral Health Information Support System [2011-2017], Ministry of Health and Long-Term Care (Accessed April 17, 2018).

\*At school entry (kindergarten).



## **Dr. Hardy Limeback, BSc, PhD (Biochemistry), DDS**

- **Former Head, Preventative Dentistry, University of Toronto (18 years)**
- **Former President, Canadian Association for Dental Research**
- **Author & editor of a textbook in preventive dentistry (Comprehensive Preventive Dentistry – Wiley-Blackwell, June 2012)**
- **Chosen to serve on the National Academy of Science's committee that produced the 2006 report *Fluoride in Drinking Water*.**



**Comment from Dr. Limeback  
re: WECHU's report on dental fluorosis**

***“Ask Dr. Ahmed and WECHU why would they say there was no dental fluorosis when at kindergarten age there are no permanent teeth to look at??***

***Tables 7 & 8 show clearly that they missed all expected dental fluorosis by looking at children only at age of school entry.***

***Everyone in the rest of the world looks at age 12 to 16 for dental fluorosis in permanent teeth.***

***There was no attempt to look at kids at that age for fluorosis.***

***Are they passing off looking at primary teeth as being the same as permanent teeth (which have not shown up yet)?”***

**Comment from Dr. Limeback  
re: WECHU's report on dental fluorosis**

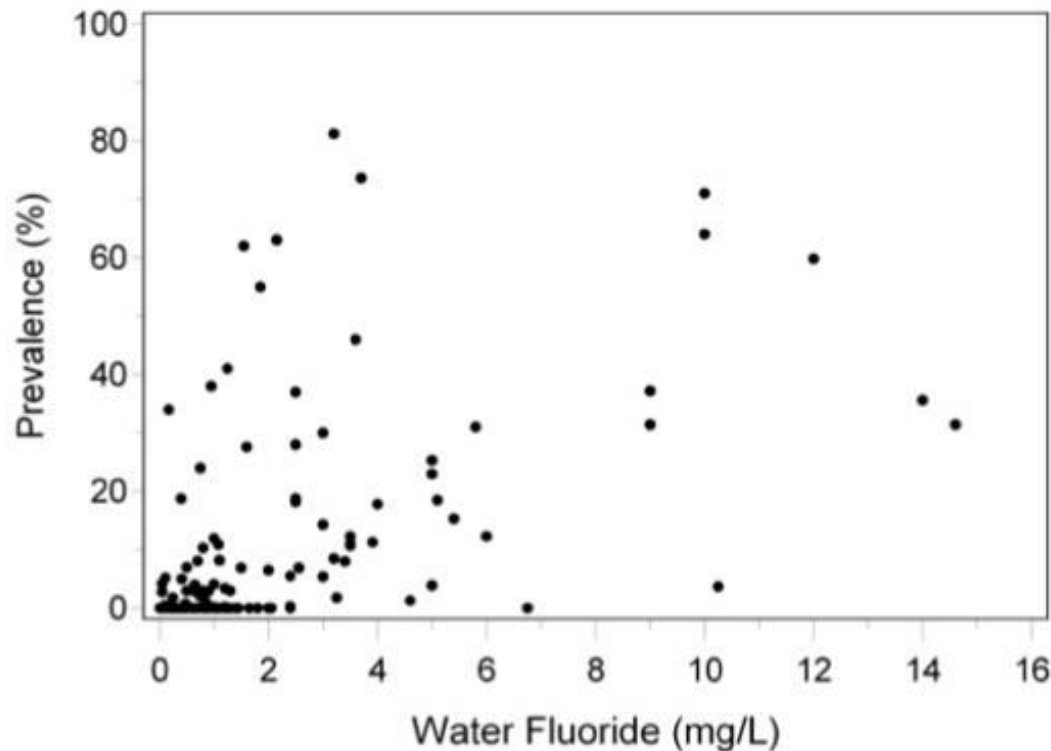
***"Studies in the US were all done on healthy kids.***

***When you look at kids who have protein or calcium deficiency (outside the US) there was lots of moderate and severe fluorosis at low levels of fluoride, including 0.7 ppm.***

***There are plenty of kids in Windsor Essex county who are poor and likely with low nutrition."***

## Comment from Dr. Limeback re: WECHU's report on dental fluorosis

*“Please show them this graph showing prevalence of severe enamel fluorosis by water fluoride concentration (mg/L), from our NRC report.”*



**FIGURE 4-3** Prevalence of severe enamel fluorosis at the person level by water fluoride concentration, permanent teeth, age <20 years, communities outside the United States.

## CDC on Children's Fluoride Exposure from Toothpaste

*Children <6 years & especially <2 years have poor control of swallowing reflex → **increased risk for dental fluorosis***

*So use **only a pea-sized bit of toothpaste***

*Supervise them and **have them spit it out***

*One gram of toothpaste has approx. 1 mg of fluoride*

***A pea-sized bit of toothpaste is approx. 0.25 g toothpaste (and therefore contains approx. 0.25 mg fluoride)***

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm>

## Problem: Fluoridated Water

In fluoridated water with 0.70 mg fluoride per litre (aka 0.7 ppm)...

...each 350 ml, or 0.35 litre, of water contains:

$0.35 \text{ L} \times 0.70 \text{ mg/L} = \mathbf{0.245 \text{ mg fluoride}}$ ...

...the same **dose** found in a pea-sized bit of F toothpaste that everyone agrees must be **spit out** by young children due to **increased risk of dental fluorosis**... and **call poison control** if they swallow **>0.25 mg**

### Does this make sense to you?



	=	
Pea-sized dab of toothpaste		One glass of 0.7ppm water
<b>0.25mg of fluoride</b>		<b>0.25mg of fluoride</b>
Monitor children! Make sure they <b>SPIT IT OUT!</b>		No Risk, <b>SWALLOW REPEATEDLY!</b>

**Consumed  
Daily, Year after  
Year, No  
Warnings  
Provided to the  
Public**