
From: Paul Connett

Sent: June 30, 2012 9:53 AM

To: mayoro; Dilkens, Drew; Jones, Ron; Valentinis, Fulvio; Halberstadt, Alan; Sleiman, Ed; Gignac, Jo-Anne (Councillor); Hatfield, Percy; Marra, Bill; Payne, Hilary; Maghnieh, Al; clerks

Subject: Water Fluoridation

June 29, 2012

Dear Mayor and Councillors of Windsor,

I have been asked by members of the *Fluoride Free Windsor* group to write to you with respect to my concerns about water fluoridation. I am happy to do so.

I have researched this issue for 16 years, first as a professor of chemistry specializing in environmental chemistry and toxicology, and now as director of the Fluoride Action Network (www.FluorideALERT.org).

I am a scientist and an activist but not a propagandist. I take a pride in having actively helped communities pro bono (including seven provinces in Canada) over the last 27 years understand the complex science underpinning several environmental health issues (e.g. dioxins and related compounds, municipal waste incineration and fluoridation) without compromising my scientific integrity. This does not mean that I do not make mistakes but when these have been pointed out to me I am happy to admit them in public (I have attached a short bio below).

My 16-year research effort into the literature on fluoride's toxicity and the practice of water fluoridation culminated in the book, *The Case Against Fluoride* (Chelsea Green, 2010) which I co-authored with two other scientists: James Beck, MD, PhD a physicist from Alberta and Spedding Micklem, D.Phil (Oxon) a biologist from Edinburgh. We did our best to make the arguments in

this book easy to understand for an intelligent lay-person while providing supporting scientific references to every point that we made to satisfy professionals in the field – in all there are 80 pages of references. I particularly draw your attention to Chapter 25, which consists of our response to 40 of the proponents' beguiling but misleading arguments. These are used time and time again at public meetings.

We had hoped that this book would raise the level of the debate on this issue but after over 18 months the promoters of fluoridation have completely ignored our book and continue to repeat their mantra that fluoridation is "safe and effective."

In our view the benefits of swallowing fluoride have been wildly exaggerated. Even the US Centers for Disease and Prevention's (CDC) Oral Health Division now admits that the benefits of fluoride are largely topical – it works on the surface of the tooth enamel and not from inside the body (CDC, 1999, 2001). Any rational person hearing this concession should wonder why any one would feel obliged to force fluoride on every man, woman and child via the public water supply, when topical fluoridated treatments are readily available in the form of toothpaste. The fact that fluoride works topically probably explains why there is little - if any - difference in tooth decay in 12-year olds whether they have grown up in fluoridated countries or non-fluoridated ones (WHO data). Please note that the vast majority of countries in the world do not fluoridate their water and that includes 98% of Europe.

As far as health effects are concerned there is no doubt that fluoride has the ability to interfere with biological systems and harm the human body in many ways (see the US National Research Council's review of 2006 [NRC, 2006]). The only question is whether there is an adequate margin of safety between the levels of fluoride that have been shown to cause harm in human studies (e.g. lowered thyroid function at 2.3 ppm, Bachinskii et al., 1985; lowered IQ at 1.9 ppm, Xiang et al., a,b, 2003 and possibly increased hip fracture rates at 1.5 ppm, Li et al., 2001). In my professional judgment – and as someone very familiar with risk assessments carried out by regulatory agencies- these exposure levels offer no adequate margin of safety to protect the whole population from harm at the levels of exposure we can anticipate in fluoridated communities. In Chapter 2 of NRC, 2006 review the authors provided an exposure analysis that indicated that there are subsets of the population drinking fluoridated water at 1 ppm - including bottle-fed infants - that are exceeding EPA's safe reference dose for fluoride.

To this list of health concerns we must add the possibility that young boys exposed to fluoridated water at 1 ppm during their 6th, 7th and 8th years have a 5-7 fold increased risk of succumbing to osteosarcoma – a frequently fatal bone cancer -by the age of 20 (Bassin et al., 2006). Despite a promise made by Bassin's thesis advisor (Chester Douglass) in 2006 that his larger study would

refute this finding he failed to do so. Among many weaknesses of this promised study (Kim et al., 2011) Douglass chose a methodology that could not refute the Bassin study because the biometric of exposure used was bone fluoride levels obtained at autopsy or at diagnosis. Neither of these bone levels could gauge exposure during the critical period of concern (6-8 years of age) in Bassin's study.

At what point should the Precautionary Principle kick in a situation like this? How many teeth would you have to save to justify putting young boys lives in danger or lowering some children's IQ?

Sadly the authorities on which Canadian decision makers like yourselves normally rely on for matters like this have let you down on this issue. But Canada is not alone on this.

In my experience the central health authorities of the handful of English-speaking countries that practice fluoridation (Australia, Canada, Ireland, New Zealand, the US and the UK) have adopted a non-scientific and doctrinaire approach to the defense and promotion of this practice. They have conducted very few – if any - studies to investigate the health of fluoridated communities and have made no attempt to reproduce the studies that have found harm in countries like India and China that have high natural levels of fluoride in large areas of their countries. The absence of study is not the same as the absence of harm.

Although it is shocking to say, at this point in time Health Canada (and the health officials they influence) seems more concerned about protecting this practice than protecting the health of the Canadian people. I do not say this lightly. My conclusions are based on first-hand observations and experience. Consider the following. When Health Canada in 2006 chose a panel to review the safety of fluoridation out of six experts selected they chose 4 dentists, who were not qualified to assess the toxicological data on fluoride. Worse still these 4 dentists are known to be enthusiastically pro-fluoridation. When Health Canada's review was published in 2009, largely based on the input from these six experts, it was extremely superficial. Among other shortcomings I pointed out that they had reviewed only 5 of the existing 23 studies that have found an association between lower IQ and fairly modest exposure to fluoride. I provided full citations to the missing 18 studies. However, when Health Canada released its final report they still ignored the missing 18 studies and gave no explanation for why they had completely ignored my input.

So consider this. There have now been over 100 animal experiments showing that fluoride can damage and interfere with the brain; 10 studies that show fluoride can change animal behavior;

three studies that show an association with fluoride exposure and fetal brain development in endemic fluorosis areas in China and at least 26 studies that show an association of fluoride exposure and lower IQ (more are being translated into English). (All these studies are identified in the health data base of the Fluoride Action Network). Yet the panel handpicked by Health Canada concluded that the "weight of evidence" indicates that fluoride does not cause neurological damage. This panel cited no studies, which have found evidence contrary to the studies listed above, and cited no studies conducted in Canada or other fluoridating countries, which have even attempted to examine the matter. What then do they mean by "weight of evidence"?

This is just one example where proponents have made sweeping claims about the safety and effectiveness of fluoridation but when scientists like myself, or concerned citizens, have asked for the science to support their claims it is not forthcoming.

Based on this – and similar experiences in other fluoridated counties – I have little hope that we are going to get any help from central, state or provincial governments on this matter and have concluded that the only way we can end this misguided practice is with "one open mind and one community at a time." I hope that you all have open minds on this issue and that having examined the evidence with due diligence you will have the courage to end this practice in Windsor.

If you do not have time to fully investigate this matter on a scientific level – or don't feel that you have the qualifications to make a judgment on which side of this debate is giving you sound advice – it seems to me that your only course of action is to halt this practice, because it is being carried out in your name. If you are not thoroughly convinced – or do not feel qualified enough to conclude – that forcing a known toxic substance on everyone in your community –including babies at orders of magnitude higher than the level in mothers' milk - will do no harm, then you shouldn't do it. Especially when there are more rational alternatives available. You should also consider the ramifications of doing to everyone in your community what an individual doctor in your community could do to no single patient –i.e. force him or her to have a medical treatment without their informed consent. By now you must have ascertained that there are hundreds - if not thousands –of citizens in your community who have expressly told you that they do not want this treatment.

Meanwhile, those citizens who wish to have fluoride are not deprived if you halt fluoridation. They can avail themselves of the more rational topical treatment via toothpaste. Those who feel that swallowing fluoride will do them some good can drink fluoridated bottle water. There is simply no longer any reason to force fluoride on everyone in your community via the public water supply.

I would also urge you to bear in mind two other things: those who urge you to continue this practice most enthusiastically, neither accept any legal responsibility if any harm is caused, nor are prepared to debate scientists like myself in public on the science of the issue.

Respectfully and sincerely,

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PS Should you halt fluoridation I urge you to put the money saved into a program to educate parents of low-income families (where most tooth decay is concentrated) about a better diet. Such a diet should contain more fruit and vegetables and less sugar. Tooth decay is not caused by a lack of fluoride but by too much sugar, especially sticky foods. Not only will this help to reduce tooth decay but it would also address the alarming epidemic of obesity which threatens to overwhelm our health care systems in North America in future years.

References

- Bachinskii PP et al. 1985. Action of the body fluorine of healthy persons and thyroidopathy patients on the function of hypophyseal-thyroid the system. *Probl Endokrinol (Mosk)* 31(6):25-9.
- Bassin EB, Wypij D, Davis RB, Mittleman MA. 2006. Age-specific fluoride exposure in drinking water and osteosarcoma (United States). *Cancer Causes and Control* 17: 421-8.
- Centers for Disease Control and Prevention (CDC). 1999. Achievements in Public Health, 1900-1999: Fluoridation of drinking water to prevent dental caries. *Mortality and Morbidity Weekly Review. (MMWR)*. 48(41): 933-940 October 22, 1999. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4841a1.htm>

Centers for Disease Control and Prevention (CDC). 2001. Recommendations for using fluoride to prevent and control dental caries in the United States. Mortality and Morbidity Weekly Review. (MMWR). August 17. 50(RR14):1-42. Available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm>

Kim FM, Hayes C, Williams PL, Whitford GM, Joshipura KJ, Hoover RN, Douglass CW, and the National Osteosarcoma Etiology Group (2011) An assessment of bone fluoride and osteosarcoma. J Dental Research. July 28 [Epub ahead of print]. <http://jdr.sagepub.com/content/early/2011/07/23/0022034511418828>

National Research Council. 2006. *Fluoride in drinking water: a scientific review of EPA's standards*. National Academies Press, Washington D.C. Report available to read and search at http://www.nap.edu/catalog.php?record_id=11571file://localhost/D:/Desktop/FAN%20site/FAN%20migration%208-24-2011/Batch%208/biblio.v-z.html - top

Xiang Q, et al. 2003a. Effect of fluoride in drinking water on children's intelligence. Fluoride 36(2):84-94. Full study at <http://fluoridealert.org/scher/xiang-2003a.pdf>

Xiang Q, et al. 2003b. Blood lead of children in Wamiao-Xinhuai intelligence study. Fluoride 36(3):198-199. Full study at <http://fluoridealert.org/scher/xiang-2003b.pdf>

Paul Connett's short bio

Dr. Paul Connett is a graduate of Cambridge University and holds a Ph.D. in chemistry from Dartmouth College. Since 1983 he taught chemistry at St. Lawrence University in Canton, NY where he specialized in Environmental Chemistry and Toxicology. He retired in May 2006. Over the past 27 years his research on waste management has taken him to 49 states in the US, 7 provinces in Canada and 53 other countries, where he has given over 2500 pro bono public presentations. Ralph Nader said of Paul Connett, "He is the only person I know who can make waste interesting."

A recent essay on "Zero Waste for Sustainability" along with several videotapes Paul has made on Zero Waste, can be accessed at www.AmericanHealthStudies.org This site is hosted by the group AEHSP (American Environmental Health Studies Project) which Paul directs.

In March 2012, Paul was the lead author of a book published in Italian entitled, "Zero Waste: A Revolution in Progress." In addition to covering the Zero Waste movement in Italy, this book contains guest essays from 10 experts on Zero waste from North America.

Paul Connett has researched the literature on fluoride's toxicity and the fluoridation debate for 16 years. He helped found the Fluoride Action Network (FAN) see <http://www.fluoridealert.org>. He has given invited presentations on the dangers of fluoridation to legislative and research bodies in Australia, Canada, Germany, Ireland, Israel, Japan, New Zealand, the UK and the US. This has included invited presentations to both the US EPA and the US National Research Council. With two other authors he published the book, "The Case Against Fluoride" (Chelsea Green) in 2010. As of May 2012 there has yet to be a scientifically referenced response to this book, which contains 80 pages of citations to the scientific literature on the subject.