

January 15, 2010

To Whom It May Concern:

I am a 40 year resident of London, Ontario, and I want to clearly state my opposition to the fluoridation of our city's water. I would like you to share this written information (letter and two attachments) with the London City Councillors and Mayor. I request and thank you for an opportunity to share my opinion/statement at the Public Participation meeting on January 25<sup>th</sup>, 2012.

I knew nothing about fluoride and unsafe water until we had someone explain some of the challenges with 'tap' water in a home presentation by a local water filtration company. They shared recent reports on what is in London's water including (but not limited to) fluoride, lead, and arsenic. At that time, I understood the value of adding Chlorine to the water to kill bacteria and was happy that the system we purchased, at a significant personal expense, would remove that (among other things) from the water before we drank it or showered in it. However, what about my friends and family that were using unfiltered city water? I shared the info I learned with anyone that would listen.

In June of 2009 I attended a seminar at South London Secondary School about Fluoride with Pam Killeen and Dr. Paul Connett. At that time we had serious lead level issues in London – I heard that night that the school was being told to run the water for at least 5 minutes every day before using. I have a co-worker who, at that time, had to have all of their pipes replaced. Dr. Connett indicated that ending fluoridation then would have helped to reduce lead levels (as the fluoride in the water helps dissolve the lead in the pipe fittings and increases lead levels). I don't understand how it is that this concern was not addressed back then! "Masters and Coplan have reported (International Journal of Environmental Studies, in press) that silicofluorides in fluoridated drinking water increased levels of lead in children's blood, a risk factor that predicts higher crime rates, ADD and learning disabilities." Dr. Phyllis Mullenix Ph.D. (*In the 1980s, Dr. Mullenix was Head of the Toxicology Department at the Forsyth Dental Center, a world renowned dental research institution affiliated with the Harvard Medical School.*)

I also learned that it had been discovered that fluoride was effective only as a topical treatment for cavities, and was not a safe and effective treatment to put in our water. There was no way to control how much fluoride everyone was getting. You could be someone who drinks a coffee or two a day, or you could drink that, plus 8-10 glasses of water, as recommended by many professionals. Also, there was increasing concern and new information about the damage that fluoride was causing to our ongoing health. Much to my frustration I found out that the white spots in my son's teeth were signs of fluorosis.

Shortly after that, I joined a Facebook Group from Toronto and set up my own Fluoride Free London Ontario Facebook page to gather and share information – it is not difficult to find issues about the negative impact of fluoridation. For example, I have found documented connections to Thyroid issues – my Mother-in-law, also of London requires thyroid medication.

I've attached letters by Dr. Hardy Limeback, Associate Professor and Head, Preventative Dentistry, University of Toronto who is "officially opposed to adding fluoride to drinking water" as well as a statement by the Canadian Association Physicians for the Environment who do not support fluoridation of drinking water. There are many other credible resources. More than enough to substantiate concerns that fluoridation is not safe nor effective.

It is time to make a change for the better. I urge you to look beyond what we believed in the past and end London's water fluoridation. Opening our minds to new research has allowed us to stop putting lead in paint and gasoline. Publicly sharing our positions and concerns in the past has helped to discourage many children from smoking (including my own) and taken smoking out of our work places. Safe water, without fluoride, is the next needed change.

Sincerely,

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Attachment 1

## Canadian Association of Physicians for the Environment – Statement on Drinking Water Fluoridation

SEPTEMBER 15, 2008

The screenshot shows the homepage of the Canadian Association of Physicians for the Environment (CAPE). At the top, there is a logo for CAPE with the text "Canadian Association of Physicians for the Environment" and "The National Voice of Physicians on Issues of Health and the Environment". Below this is the French equivalent: "Association Canadienne des Médecins pour l'Environnement". A navigation menu includes links for "About Us", "Children's Health", "Toxics", "Green Health Care", "Climate Change", "Regulation", and "Resources". There are two main call-to-action buttons: a blue "Donate Now" button with the text "Please click to donate to CAPE's charitable wing: The Canadian Health and Environment Education and Research Foundation" and a green "Join CAPE Today" button with the text "Over 5,000 doctors and concerned citizens from across Canada are members of CAPE. Make a donation and join CAPE today to protect your health and the environment - and receive an instant tax receipt!". Below the "Donate Now" button are social media icons for "twitter" and "facebook". At the bottom left, there is a link for "New CAPE Eco-Leaders Circle". On the right side, there is a link for "Help Protect B.C. from Toxic Lawn Chemicals! Email Premier Clark and Environment Minister Lake" and a small image of a child running in a field.

**Canadian Association of Physicians for the Environment**  
**– September, 2008 — Statement on drinking water fluoridation**

The Canadian Association of Physicians for the Environment (CAPE) does not support fluoridation of drinking water for the following reasons.

1) The decline in caries in communities that are fluoridated has been highly significant — but so has the decline that has occurred in non-fluoridated communities. There has, in fact, been a general decline in dental caries throughout the Western world, and the decline in fluoridated cities has not exceeded that in non-fluoridated communities. For example, BC drinking water is 95% nonfluoridated, whereas drinking water in Alberta is 75% fluoridated; yet the two provinces have similar rates of caries. Furthermore, Europe is 98% non-fluoridated, but global European dental health is generally equivalent to or better than that in North America. Whatever the reason for the decline in dental caries, it can not be concluded that it is the result of drinking water fluoridation.

2) The incidence of toxic effects in humans from fluoridation may well have been underestimated. The most serious potential association is with osteosarcoma in boys, which appears to have been loosely associated with age of exposure to fluoride. It is true that the CDC has (as has the original researcher) acknowledged that current data are tentative, but a further larger-scale study is pending from the Harvard School of Dentistry. At the very least, such data are grounds for caution.

3) Animal studies have shown a wide range of adverse effects associated with fluoride. It has been shown to be a potential immunotoxin, embryotoxin, neurotoxin and harmful to bony tissues, including both dental and ordinary bone. In addition, it can damage (inhibit) thyroid function in several species, including humans. Its effect on ecosystem balance has been little researched, but is unlikely to be positive.

4) The intake of fluoride from drinking water is uncontrolled, and can lead to dental fluorosis in children who are inclined to drink large amounts of water. Both natural and artificially fluoridated water can cause this effect, which is, of course, simply a visible representation of an effect on the entire bony skeleton. The cost of repairing teeth damaged by fluorosis is not trivial; moderate to severe effects can require \$15,000 or more in dental fees.

It seems clear that

- a) fluoridation is unlikely to be the cause of the decline in caries in Europe and North America
- b) the potential for adverse effects is real, and
- c) current evidence points in the direction of caution.

Over the last decade, recommendations with respect to acceptable fluoride exposure have steadily declined, and cautions have increased. Any dental benefit that may accrue from fluoride exposure is fully achieved by controlled topical application of fluoride compounds by trained dental professionals, not by fluoride ingestion.

[The analysis of Dr. Hardy Limeback [www.fluoridealert.org/limeback.htm](http://www.fluoridealert.org/limeback.htm), Head, Preventive Dentistry, at the University of Toronto, further clarifies these points.]

**On the basis of this “weight of evidence” we believe that fluoridation of drinking water is scientifically untenable, and should not be part of a public health initiative or program.**

<http://cape.ca/permalinked/flouridation.doc>

## Attachment 2

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April, 2000

To whom it may concern:

### **Why I am now officially opposed to adding fluoride to drinking water**

Since April of 1999, I have publicly decried the addition of fluoride, especially hydrofluosilicic acid, to drinking water for the purpose of preventing tooth decay. The following summarize my reasons.

#### *New evidence for lack of effectiveness of fluoridation in modern times.*



1. Modern studies (published in the 1980's 1990's) show dental decay rates are so low in North America that the effects of **water fluoridation** cannot be measured. Because of the low prevalence of dental decay, water fluoridation studies today must be carefully conducted to correct for mobility of subjects between fluoridated and non-fluoridated areas, access to fluoride from other sources, the lack of blinding and problems with the 'halo' effect. Even when very large sample sizes are used to obtain statistically significant results, the benefit of water fluoridation is not a clinically relevant one (the number of tooth surfaces saved from dental decay per person is less than one half). Recent studies show that halting fluoridation will either result in only a marginal increase in dental decay which cannot be detected or no increase in dental decay at all.

2. The major reasons for the general **decline of tooth decay** worldwide, both in non-fluoridated and fluoridated areas, is the widespread use of fluoridated toothpaste, improved diets, and overall improved general and dental health (antibiotics, preservatives, hygiene etc).

3. There is now a better understanding of how fluoride prevents dental decay. What little benefit fluoridated water may still provide is derived primarily through **topical means** (after the teeth erupt and come in contact with fluorides in the oral cavity). Fluoride does not need to be **swallowed** to be effective. It is not an essential nutrient. Nor should it be considered a desirable 'supplement' for children living in non-fluoridated areas. Fluoride ingestion delays tooth eruption and this may account for some of the differences seen in the past between fluoridated and non-fluoridated areas (i.e. dental decay is simply postponed). No fluoridation study has ever separated out the systemic effects of fluoride. Even if there were a systemic benefit from ingestion of fluoride,

it would be miniscule and clinically irrelevant. The notion that systemic fluorides are needed in non-fluoridated areas is an outdated one that should be abandoned altogether.

*New evidence for potential serious harm from long-term fluoride ingestion.*

1. Hydrofluorosilicic acid is recovered from the smokestack **scrubbers** during the production of phosphate fertilizer and sold to most of the major cities in North America, which use this industrial grade source of fluoride to fluoridate drinking water, rather than the more expensive pharmaceutical grade sodium fluoride salt. Fluorosilicates have **never been tested** for safety in humans.

Furthermore, these industrial-grade chemicals are contaminated with trace amounts of heavy metals such as lead, arsenic and radium that accumulate in humans. **Increased lead levels** have been found in children living in fluoridated communities. Osteosarcoma (bone cancer) has been shown to be associated with radium in the drinking water. Long-term ingestion of these harmful elements should be avoided altogether.

2. Half of all ingested fluoride remains in the **skeletal system** and accumulates with age. Several recent epidemiological studies suggest that only a few years of fluoride ingestion from fluoridated water increases the risk for **bone fracture**. The relationship between the milder symptoms of bone fluorosis (**joint pain and arthritic symptoms**) and fluoride accumulation in humans has never been investigated. People unable to eliminate fluoride under normal conditions (**kidney impairment**) or people who ingest more than average amounts of water (athletes, diabetics) are more at risk to be affected by the toxic effects of fluoride accumulation.

3. There is a dose-dependent relationship between the prevalence/severity of **dental fluorosis** and fluoride ingestion. When dental decay rates were high, a certain amount of dental fluorosis was considered an acceptable 'trade off' of providing an 'optimum' dose of 1.0 ppm fluoride in the water. However, studies published in the 1980's and 1990's have shown that dental fluorosis has increased dramatically in North America. Infants and toddlers are especially at risk for dental fluorosis of the front teeth since it is during the first 3 years of life that the permanent front teeth are the most sensitive to the effects of fluoride. Children fed formula made with fluoridated tap water are at higher risk to develop dental fluorosis. A relatively small percentage of the children affected with dental fluorosis have the more severe kind that requires extensive restorative dental work to correct the damage. The long-term effect of fluoride accumulation on dentin colour and biomechanics is also unknown. Generalized dental fluorosis of all the permanent teeth indicates that the bone is a major source of the excess fluoride. The effect of this excess amount of fluoride in bone is unknown. Whether stress bone fractures occur more often in children with dental fluorosis has not been studied.

4. A lifetime of excessive fluoride ingestion will undoubtedly have detrimental effects on a number of **biological systems** in the body and it is illogical to assume that tooth enamel is the only tissue affected by low daily doses of fluoride ingestion. Fluoride activates G-protein and a

number of cascade reactions in the cell. At high concentrations it is both mitogenic and [genotoxic](#). Some published studies point to fluoride's interference with the [reproductive system](#), the [pineal gland](#) and thyroid function. Fluoride is a proven [carcinogen](#) in humans exposed to high industrial levels. No study has yet been conducted to determine the level of fluoride that bone cells are exposed to when fluoride-rich bone is turned over. Thus, the issue of fluoride causing [bone cancer](#) cannot be dismissed as being a non-issue since carefully conducted animal and human cancer studies using the exact same chemicals added to our drinking water have not been carried out.

The issue of [mass medication](#) of an unapproved drug without the expressed informed consent of each individual must also be addressed. The dose of fluoride cannot be controlled. Fluoride as a drug has contaminated most processed foods and beverages throughout North America. Individuals who are susceptible to fluoride's harmful effects cannot avoid ingesting this drug. This presents a [medico-legal and ethical dilemma](#) and sets water fluoridation apart from vaccination as a public health measure where doses and distribution can be controlled. The rights of individuals to enjoy the freedom from involuntary fluoride medication certainly outweigh the right of society to enforce this public health measure, especially when the evidence of benefit is marginal at best.

Based on the points outlined briefly above, the evidence has convinced me that the benefits of water fluoridation no longer outweigh the [risks](#). The money saved from halting water fluoridation programs can be more wisely spent on concentrated public health efforts to reduce dental decay in the populations that are still at risk and this will, at the same time, lower the incidence of the harmful side effects that a large segment of the general population is currently experiencing because of this [outdated public health measure](#).

Sincerely,

Dr. Hardy Limeback BSc PhD (Biochemistry) DDS

Head, Preventive Dentistry

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