

Proposed GLU Resolution Regarding Artificial Water Fluoridation

Whereas the [Basel Convention](#), [Environment Canada](#) and [United States Environmental Protection Agency \(US EPA\)](#) all state that the chemicals used in artificial water fluoridation are hazardous waste which may not be put directly into lakes, rivers & oceans;

Whereas artificial water fluoridation chemicals contain between 20 to 30% hydrofluorosilicic acid (inorganic fluoride), trace amounts of arsenic, lead, mercury, radionuclides and other heavy metals (American Water Works Association ([AWWA Standard B703-06](#)), all considered to be toxic substances under the [Comprehensive Environmental Response, Compensation, and Liability Act \(CERCLA\) Priority List of Hazardous Substances in USA, 1989 First Priority Substances lists in Canada](#) and proposed for “virtual elimination” under the Canadian Environmental Protection Act ([CEPA 1999, 2006 update](#)), the [1997 Binational Toxic Strategy](#) and the [1978 Great Lakes Water Quality Agreement](#);

Whereas fluoride is not removed in sewage treatment and remains a toxic constituent of the effluent discharged by treatment plants to rivers and lakes;

Whereas background levels of fluoride in the Great Lakes exceed the [Canadian Water Quality Guideline \(CWQG\)](#) and fluoride concentrations in sewage effluent are 5-10 times in excess of the CWQG (Camargo 2003, [Board of Health Hamilton, July 9, 2008](#)). At these concentrations fluoride is known to be toxic to a variety of water species such as salmon ([Daemker and Dey 1989](#)), caddisfly, daphnia magna ([2003 Camargo review](#)) & others ([1977 Canadian National Research Council Review](#));¹

Whereas the [US EPA Unions](#) and the Canadian Association of Physicians for the Environment ([CAPE](#)) & [professionals world-wide](#) state that artificial water fluoridation is not effective in the prevention of cavities² and not safe to vulnerable populations, as demonstrated in the recent US [National Research Council 2006 Review](#).¹

Whereas there is a wide range of health vulnerabilities¹ in a population and a wide range of consumption patterns for fluoridated water and beverages and foods made with fluoridated water, which means that an individual's daily dose of fluoride chemicals from drinking water cannot be controlled;

Whereas imposing chemicals used as a medication to a population without a prescription or their informed consent is unacceptable; and,

Whereas less than one percent of treated water is actually ingested by the body and the remaining 99 percent put into the environment; and,

Therefore be it resolved that Great Lakes United supports the United States Environmental Protection Agency unions ([US EPA Unions](#)), Canadian Association of Physicians for the Environment ([CAPE](#)) statements and [professionals world-wide](#) that the practice of artificial drinking water fluoridation be terminated;

Therefore be it further resolved that Great Lakes United works to reverse existing government policies supporting artificial drinking water fluoridation;

Therefore be it further resolved that Great Lakes United supports government policies, practices and regulations which do not permit drinking water to be used as a means of delivery for chemicals or drugs intended to treat humans – for example, the chemical called hydrofluorosilicic acid, used to deliver fluorides;

Therefore be it further resolved that Great Lakes United supports government policies, practices and regulations requiring fluoride polluting industries to dispose of this hazardous waste in a safe, sustainable manner which does not harm our ecosystem;

Therefore be it further resolved that Great Lakes United communicates accurate information regarding the safety and efficacy of these artificial fluoridation chemicals to municipal associations (such as the Federation of Canadian Municipalities), the Great Lakes-St. Lawrence Cities Initiative, First Nations and Tribal Governments who are attempting to make informed decisions on this issue;

Therefore be it further resolved that Great Lakes United communicates accurate information regarding safety and efficacy of these artificial fluoridation chemicals to municipal associations (eg. Federation of Canadian Municipalities), the International Conference of Great Lakes Mayors, First Nations Governments who are attempting to make informed decisions on this issue;

Therefore be it further resolved that Great Lakes United makes their position known to provincial, state and federal governments.

Footnotes

1. **National Research Council 1977 & 2006 Reviews, US ATSDR 1993:** quotes regarding associated neurotoxic, endocrine, cancer, bone, immune system effects from uncontrolled fluoride ingestion (attached).

Various government agencies advise that children under the age of 1 should not drink fluoridated drinking water or use fluoridated dental products. For example:

- **American Dental Association 2006** says young children should use water: “purified, distilled, deionized, demineralized, or produced through reverse osmosis.”
- **Food Safety Authority - Ireland 2001:** “that the precautionary principle should apply and recommends that infant formula should not be re-constituted with fluoridated tap water”
- **Health Canada & fluoridated dental products:** “...children under age 3 should not use fluoridated toothpaste...” [Petition No. 221 #10](#) & “Never give fluoridated mouthwash or mouth rinses to children under six years of age, as they may swallow it.” *Fluorides and Human Health 2005* & “If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Centre right away”. *mandated for F toothpaste 2009* & “Health Canada does not consider fluoride as an essential nutrient.” & ["Health Canada does not recommend the use of fluoride supplements \(drops or tablets\)."](#)
- **US FDA:** “Keep out of reach of children under 6 years of age. If you swallow more than used for brushing, get medical help or contact a Poison Control Center right away.” *mandated for F toothpaste*

“The primary concern is that multiple routes of exposure, from drinking water, food and dental care products, may result in a high enough cumulative exposure to fluoride to cause developmental effects.” & “Excessive fluoride ingestion is known to lower thyroid hormone levels, which is particularly critical for women with subclinical hypothyroidism: decreased maternal thyroid levels adversely affect fetal neurodevelopment.” [Scientific Consensus Statement on Environmental Agents Associated with Neurodevelopmental Disorders](#) released Feb 20, 2008: 4.3.2. Fluoride

Fluorosilicates &/or choramine/chlorine increase the leaching of lead from leaded pipes, leaded solder and leaded alloys (i.e. brass). Maas RP, Patch SC, Christian AM, Coplan MJ 2007 [Effects of fluoridation and disinfection agent combinations on lead leaching from leaded-brass parts](#). *Neurotoxicology*. Sep;28(5):1023-31.

23 new studies demonstrating an association between fluoride in drinking water and neurotoxic effects were reviewed in 3 research papers in 2008:

1. Liu M, Qian C. Effect of endemic fluorosis on children's intelligence development: a Meta analysis. *Zhongguo Dang Dai Er Ke Za Zhi*. 2008 Dec;10(6):723-5. [Article in Chinese]
2. Tang QQ, Du J, Ma HH, Jiang SJ, Zhou XJ. Fluoride and Children's Intelligence: A Meta-analysis. *Biol Trace Elem Res*. Aug 2008 Epub ahead of print. <http://www.ncbi.nlm.nih.gov/pubmed/18695947?dopt=AbstractPlus>
3. Connett M, Limeback H. Fluoride and its effect on human intelligence. A systematic review. 2008 IADR 86th General Session & Exhibition

"Full-scale retrospective epidemiological studies whose scientific value has been demonstrated before the courts have revealed that there is a marked correlation between increased cancer mortality rates and the artificial fluoridation of public water supplies." p. 3-4 & "On the other hand, it has not yet been established with any certainty that water with the recommended level of fluoridation is effective in preventing tooth decay." p. 128-129 [Report prepared for the Quebec Minister of the Environment by the Advisory Committee on the Artificial Fluoridation of Water Supplies](#). *Fluorides, Fluoridation and Environmental Quality*. Government of Quebec, Minister of the Environment for Quebec, Sainte-Foy, November 1979.

2. "Clearly the simplest way of reducing the prevalence of fluorosis in child populations is to cease to fluoridate community water supplies." *Michele Giddings, Manager of the Water Quality and Science Division in the Water Quality and Health Bureau, Healthy Environments & Consumer Safety Branch, Health Canada, Health Canada's Secretariat for the Federal/Provincial/Territorial committee on Drinking Water, Co-ordinator of the Disinfectants and Disinfection By-products Working Group for the World Health Organization's Guidelines for Drinking Water Quality, ODWAC – Ontario Advisory Council on Drinking Water Quality and Testing Standards, Millership affidavit, Exhibit 15, pg.151.*

"The magnitude of [fluoridation's] effect is not large in absolute terms, is often not statistically significant and may not be of clinical significance" *Locker D. (1999). Benefits and Risks of Water Fluoridation. An Update of the 1996 Federal-Provincial Sub-committee Report. Prepared for Ontario Ministry of Health and Long Term Care.*

"it is now accepted that systemic fluoride plays a limited role in caries prevention" & "In the past decades, a number of authors focused their attention on caries trend of the communities that interrupted water fluoridation in comparison to communities without water fluoridation (Kuopio and Jyväskylä, Finland; Chemnitz and Plauen, Germany; Tiel and Culemborg, Holland; La Salud, Cuba). In these communities, during the years of water fluoridation, a caries reduction had been observed, but after the cessation, caries prevalence did not rise, remained almost the same or even decreased further. *Giuseppe Pizzo, Maria Piscopo, Ignazio Pizzo and Giovanna Giulliana. 2007 Community water fluoridation and caries prevention: a critical review. Clinical and Oral Investigations. Sep;11(3):189-193.*

"Our analysis shows no convincing effect of fluoride-intake on caries development." *Komarek A, Lesaffre E, Harkanen T, Declerck D, Virtanen JI. A Bayesian analysis of multivariate doubly-interval-censored dental data. Biostatistics 2005;6:145-55.*

Meta-analysis demonstrating that cavity rates remained the same or continued to decline in communities which discontinued artificial water fluoridation. *Azarpazhooh A, Stewart H (Chief Dental Officer for Toronto). Oral Health Consequences of the Cessation of Water Fluoridation in Toronto 2006 August.*

"We found virtually no difference in caries prevalence or severity between 7-year-old children from schools in non-fluoridated Caledon and schools matched on socio-economic factors, in fluoridated Brampton." *Ito D, University of Toronto. Determinants of caries in adjacent fluoridated and non-fluoridated cities. IADR/AADR/CADR 85th General Session and Exhibition March 21-24, 2007 # 2757.*

"Following fluoridation cessation of the public water supply, the prevalence and severity of dental fluorosis

decreased significantly.” & “ The percentage of children with dental fluorosis dropped from 58% to 24%.” Clark DC, Shulman JD, Maupome G, Levy SM. 2006 [Changes in Dental Fluorosis Following Cessation of Water Fluoridation](#). *Community of Dental and Oral Epidemiology Jun;34(3):197-204.*

“The prevalence of caries (assessed in 5,927 children, grades 2, 3, 8, 9) decreased over time in the fluoridation-ended community while remaining unchanged in the fluoridated community.” Maupome G, Clark DC, Levy SM, Berkowitz. [Patterns of dental caries following the cessation of water fluoridation](#). *Community Dent Oral Epidemiol 2001; 29:37-47*

“The benefits of fluoride are mostly topical...while fluorosis is clearly more dependent on fluoride intake” Warren JJ, Levy SM, Broffitt B, Cavanaugh JE, Kanellis MJ, Weber-Gasparoni K. [Considerations on Optimal Fluoride Intake Using Dental Fluorosis and Dental Caries Outcomes - A Longitudinal Study](#). *J Public Health Dent. 2008 Nov 21. [Epub ahead of print]*

“Fluoride Works Primarily Through Topical (Surface Mechanisms) - Inhibits demineralization and enhances remineralization. Therefore products applied to the mouth are the most effective.” 2008 *International Association for Dental Research (IADR) conference, Dr. Featherstone, who authored the cover story article in JADA, July 2000, stated once again that benefits of fluoride are from TOPICAL uses of fluoride at VERY HIGH DOSES (5,000ppm). Artificial water fluoridation concentrations are 3-4 orders of magnitude lower (0.5 -1.2 ppm).*

[US CDC](#) references many papers which purportedly demonstrate the effectiveness of fluoridated water on their website but the papers cited refer to topical applications of fluoride – not fluoridated water.

1. Bratthall D, Hansel Petersson G, Sundberg H. Reasons for the caries decline: what do the experts believe? *Eur J Oral Sci* 1996;104:416-22.
2. Horowitz HS, Ismail AI. **Topical** fluorides in caries prevention. In: Fejerskov O, Ekstrand J, Burt BA, editors. *Fluoride in dentistry*. 2nd ed. Copenhagen: Munksgaard; 1996. Chapter 17.
3. Johnston DW. Current status of professionally applied **topical** fluorides. *Community Dent Oral Epidemiol* 1994 Jun;22.
4. Ripa LW. An evaluation of the use of professional (operator-applied) **topical** fluorides. *J Dent Res* 1990 Feb;69(Spec 786-96).
5. Stookey GK, Beiswanger BB. **Topical** fluoride therapy. In: Harris NO, Christen AG, editors. *Primary preventive dentistry*. 4th ed. Norwalk (CT): Appleton and Lange; 1995.

“Dental Fluorosis, no matter how slight is an irreversible pathological condition recognised by authorities around the world as the first readily detectable clinical symptom of previous chronic fluoride poisoning. To suggest we should ignore such a sign is as irrational as saying that the blue-black line which appears on the gums due to chronic lead poisoning is of no significance because it doesn't cause any pain or discomfort.” Dr. Geoffrey Smith, *Dental Surgeon, New Scientist, May 5, 1983*