

Canadian water providers ceasing artificial fluoridation

By Peter Van Caulart



When Dr. John Snow convinced the St. James Parish Board of Guardians in London, England, to remove the Broad Street pump handle, an epic public health victory was won. Through detailed and critical analysis, his demand helped arrest London's cholera outbreak of 1854.

On January 24, 2008, a delegation

from People for Safe Drinking Water (PFSDW) convinced Niagara Regional Council not to implement artificial fluoridation at its six regional water plants, and to pass bylaws to cease existing fluoridation schemes. The volunteer research collaborative presented compelling evidence regarding justification for discontinuing hydrofluosilicic acid (HFSA) use as a community

water-fluoridating agent. It was an unprecedented vote against the recommendations of Niagara's MOH.

In March 2008, Thunder Bay Council deferred any decision to consider water fluoridation at its new Bare Point drinking water treatment facility until a review of an Environmental Bill of Rights (EBR) petition regarding the addition of inorganic fluorides to drinking

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water has been completed. EBR Petition File No. 07EBR014.R will have the Ontario Ministry of the Environment reviewing the existing policies and regulations under the Safe Drinking Water Act (SDWA).

Québec City Council voted on April 1, 2008, to discontinue fluoridating its drinking water. An interesting opinion was written on Page 38 in the March 2008 *Chatelaine* magazine over Québec City's move to stop fluoridation. The question was: "Is it harmful?" The response was written by Dr. Hardy Limeback, head of preventive dentistry at the University of Toronto.

Dr. Limeback feels we're ingesting far too much fluoride. He explains that in areas where the water is fluoridated, adults consume two to four milligrams of fluoride per day, two-thirds of which comes from drinking tap water. New studies have linked overexposure to fluoride with thyroid problems, hip fractures and dental fluorosis. Health Canada requires warning labels on fluoridated toothpastes. The US Centers for Disease Control and Prevention and

the American Dental Association caution against using fluoridated water for making infant formula.

On April 14, 2008, Dryden residents voted 87% against drinking water fluoridation. This after a heated public relations battle that brought into the area two fluoride heavyweights: Dr. Peter Cooney, Chief Dental Officer for Canada, and the Fluoride Action Network's Paul Connett, Ph D., who made separate presentations to the citizenry.

So what's happened regarding fluoride to bring about these changes? Artificial drinking water fluoridation has been a contentious issue for 63 years. Simply stated, the once common belief that fluoridated drinking water prevents tooth decay is false.

"Fluoride's caries-preventive properties initially were attributed to changes in enamel during tooth development because of the association between fluoride and cosmetic changes in enamel and a belief that fluoride incorporated into enamel during tooth development would result in a more acid-resistant mineral.

However, laboratory and epidemio-

logic research suggests that fluoride prevents dental caries predominantly after eruption of the tooth into the mouth, and its actions primarily are topical for both adults and children." Centers for Disease Control; MMWR Weekly Report. 1999;48:933-940.

Government agencies like CDC, EPA, WHO and Health Canada all have information endorsing community water fluoridation (CWF) as a policy. But none have performed valid scientific primary research about the effects to the human body when HFSA is ingested.

"Dentists are puzzled as to why fluoridation no longer appears to reduce dental expenses or decay. Perhaps it was poor historical studies failing to include confounders such as socioeconomic differences or delay in tooth eruption caused by fluoridation. In any case, after 60 years of fluoridation, evidence for the effectiveness of fluoridation cannot be demonstrated. Several studies have been done where fluoridation has been stopped and a cessation of fluoridation does not result in an in-
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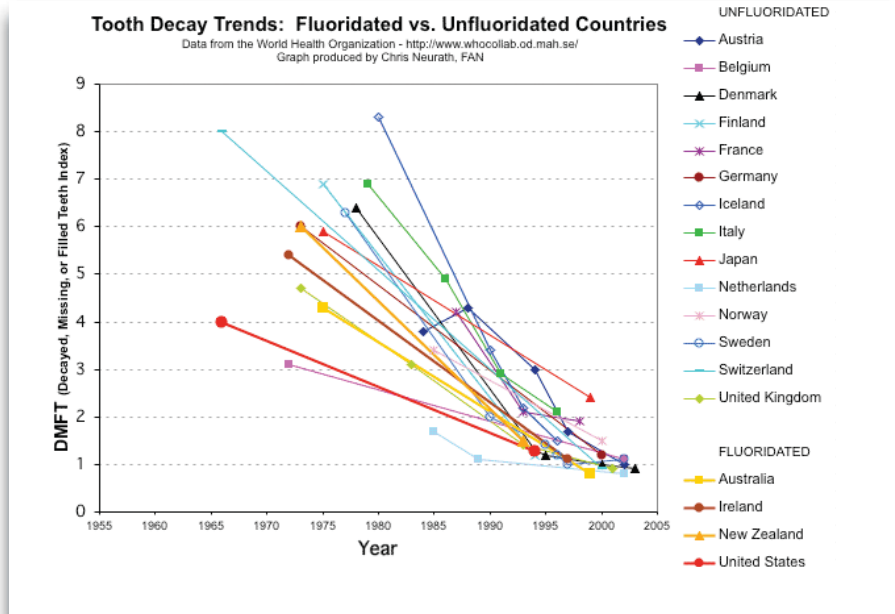
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crease in dental decay.” Dr. Bill Os-
munson, DDS, MPH, 2008.

Calcium fluoride (CaF₂), a natural mineral found in ground and surface waters, is not the same as the pharmaceutical grade sodium fluoride (NaF) used in dental treatments. These products are 20 times more toxic and must be prescribed and used under professional care. Toothpaste formulations carry warnings against swallowing, calling poison control centres and prohibitions for use by children. Why? Fluoride is poisonous.

But drinking water treatment facilities don't use NaF, they use inorganic silico-
fluorides, mainly in the form of HFSA.

HFSA is a liquid industrial waste from the super phosphate fertilizer industry. An assay of HFSA will list trace co-contaminants of lead, arsenic, mercury, cadmium and radionuclides as supplemental constituents of the solution. These substances are present because they wash down in stack scrubbers used to prevent toxic fluoride emissions into the air. Raw HFSA is shipped directly to water treatment fa-



cilities, unprocessed. HFSA has never been proven safe for human ingestion or effective at preventing dental decay.

Why has this situation occurred? Simple, follow the money. There's a cost saving to a multibillion-dollar industry by processing liquid industrial waste through human kidneys.

“If this stuff (silicofluorides) gets out into the air, it's a pollutant; if it gets into the river, it's a pollutant; if it gets into the lake, it's a pollutant; but if it goes right straight into your drinking water system, it's not a pollutant. That's amazing!” SOURCE: Dr. Hirzy 2000 – USA Senior EPA Chemist.

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"In regard to the use of fluosilicic acid as a source of fluoride for fluoridation, this agency regards such use as an ideal environmental solution to a long-standing problem. By recovering by-product fluosilicic acid from fertilizer manufacturing, water and air pollution are minimized." Rebecca Hamner 1983 US EPA.

What's the harm? Aren't the contaminant concentrations of HFSA below the maximum acceptable concentration (MACs) for drinking water? No. The argument is that the contaminants are diluted into treated drinking water to levels below the MAC.

By diluting high quality water with HFSA, the finished drinking water is degraded from its treated state. HFSA addition does nothing to enhance, purify or improve the quality of drinking water.

So adding HFSA is adding known toxins into drinking water which is in direct violation of Ontario's SDWA. Sections 20 (1) and (3) are clear about this prohibition and dilution is no defence. Section 166 indicates that the SDWA takes precedence over the Fluoridation Act. This information is the crucial authority for stopping fluoride addition to drinking water. Facility owners and overall responsible operators (OROs) have a duty of care to cease the practice until the safety for doing so is established. In light of the new information of health harm, relying on historical precedent is no excuse not to act now.

What are the health effects of ingested fluoride on other body tissues? Fluoride is an enzymatic reactor. It reacts and interferes with various chemical functions of the body. Fluoride at levels of 5 mg/kg can be lethal, but low levels of fluoride over long periods of time will cause or contribute to serious long-term health damage.

Some of the dental and medical risks raised by the NRC 2006 report, of fluoride from all sources including current levels in drinking water, included: tooth enamel damage, gum disease, arthritic-like pain, bone cancer, osteoporosis, bone fractures, thyroid suppression, kidney damage, reproductive problems, lower IQ and increased mental retardation, allergies and gastrointestinal disorders.

Dose vs. concentration is another aspect that no longer holds up to scrutiny.

The concentration range allowed for fluoride in Ontario is now 0.5-0.8mg/L. However, the Gallagan-Vermillion formula for establishing fluoride concentration states that colder areas require a higher concentration of "optimal fluoride"(the fluoride industry euphemism). So, by the G-V formula, much of Canada should be fluoridating to levels above 1.1mg/L while Ontario mandates optimal concentrations that are 28% to 55% lower. Contrast the previous sentence with the Centers for Disease Controls's fluoridation manual that states "...even a drop of 0.2mg/L below the optimum level can reduce dental benefits significantly." So what's the benefit?

How can the dose be determined for different water consumers? Infants, athletes, outside workers, soldiers, diabetics and kidney patients each consume more water than normal, therefore they receive more mg of fluoride per kg. of body weight.

"90+% of European Governments and Dental Associations have rejected, banned, or stopped fluoridation due to environmental, health, legal, or ethical

concerns. Only six countries in the world continue to fluoridate. Both the Nobel and Pasteur Institutes have rejected fluoridation." Dr. Bill Osmunson, DDS, MPH, 2008

Lastly, only 1% of treated water is consumed for drinking; the remaining 99% carries the dissolved inorganic fluoride through the wastewater treatment process and straight back into the environment. A survey of annual drinking water reports of eastern Ontario communities shows the levels of fluoride in Lake Ontario and the St Lawrence River increasing and double (0.24mg/L) what the provincial guideline is for the Lake (0.12mg/L). Evidence exists showing that aquatic organisms are harmed and fisheries are at risk.

Find out the facts at fluoridealert.org or waterloowatch.com, and then, like Dr. Snow, act.

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