

FLUORIDATION FACTS

The following is a compilation of information from various public agencies and individual medical authorities on the issue of fluoridation of public water supplies. Recent actions of various Ontario municipalities are also included .

Public Agencies

A) Federal

1 Health Canada

“ Scientific studies continue to indicate that there are no adverse health effects from exposure to fluoride in drinking water at or below the maximum acceptable concentration” “Health Canada continues to support water fluoridation as a safe, effective and cost effective public health measure to help prevent dental cavities”

B) Provincial

1 Arlene King , Chief Medical Officer of Health

“ The fluoridation of Ontario's drinking water supplies is a safe, effective and efficient population health intervention “ See attachment.

2 Ministry of the Environment

“ Hydrofluorosilicic acid breaks down in the municipal water supply to release fluoride ions Drinking water is not a source of exposure to hydrofluorosilicic acid “

C) Medical Authorities

1 College of Dental Surgeons of Ontario

**“Express our strong support for the continuation of the fluoridation of the municipal water supply “
“ Most cost-effective and equitable strategy for the prevention of dental caries”**

2 Dr Joseph Multari Chief of Dentistry Windsor Regional Hospital

“ Communities which have added fluoride to their municipal drinking water have seen a 20-50 % reduction in the incidence of tooth decay..... In contrast, communities that have removed fluoride from their drinking water can expect a doubling of their decay rates over time”

3 Dr .Joseph Shaban Ontario Medical Association Section Chair of Endocrinology and Metabolism

“ I, along with my colleagues (six listed) can confirm that we have not seen any adverse effects which can be seen in any way attributed to community water fluoridation “

1. 4 Dr Huy Nguyen Leamington Dental Health Centre

“ I have moved to Leamington which is not a fluoridated community and have seen more than enough cases of rampant decay in children and heavy recurrent decay in adults and root decay in seniors to make me wish that fluoridation was a part of every city's tap water “

5 Dr Francis Janisse Past President Essex Co. Dental Society

“As a specialist in Orthodontics I see probably more kids than most dental professionals and because of this I see the benefits of keeping fluoride in the water”

6 Windsor Essex County Health Unit

Fluoridation Fact Sheet attached

D) Ontario Municipalities

1 Peel Region

Attached is a motion adopted on January 12th 2012 which requests Health Canada to take certain actions re fluoridation.

2 Town of La Salle

Supported the Peel motion on May 8th 2012

3 City of London

Attached is a motion adopted on April 23rd 2012 which “ supports the ongoing fluoridation of the City of London's drinking water “

4 City of Hamilton

The Board of Health directed “That staff be directed to provide annual reports to the Board of Health on Water Fluoridation “ Research had indicated that discontinuance of fluoridation would generate 100,000 additional cavities over 10 years.

5 Town of Lakeshore

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80% of the town water supply was previously not fluoridated and Town Council recently directed that fluoridation be discontinued for the remaining 20%.

6 City of Toronto

Toronto Public Health Board voted unanimously in April 2011 to continue fluoridation.

7 Halton Region

Regional Council voted in January 2012 to continue fluoridation

8 Town of Amherstburg

Town Council voted in January 2012 to cease fluoridation

E) Literature Review -University Of Calgary 2011

A review of 115 articles concluded that :

“On balance there is no clear evidence for an association between drinking water fluoridation and health outcomes other than dental outcomes “

F) American Dental Association

“ Unquestionably one of the safest and most beneficial, cost effective public health measures for preventing, controlling and in some cases reversing, tooth decay “

Compiled by : Councillor Hilary Payne , P. Eng.

City of Windsor

January 2013

FLUORIDATION FACT SHEET

- Fluoride, a naturally occurring mineral, has been found to stop, prevent, and even reverse the process of tooth decay. This finding is strongly supported by an extensive body of Canadian and international research.
 - Water fluoridation is the process whereby the level of fluoride in a water supply is adjusted to a level that will optimize dental benefits.
 - The current target level of fluoride in Windsor, LaSalle, Tecumseh, and Amherstburg drinking water is 0.6 parts per million—less than the naturally occurring fluoride levels from a number of water sources in North America, including parts of Ontario.
 - Health Canada endorses water fluoridation as a public health measure to prevent dental decay. Dental disease is the most common cause of permanent tooth loss in children. Besides the obvious pain and suffering it causes, poor oral health is also associated with poor overall health.
 - When the fluoridation of drinking water was introduced across North America in the mid-1900s, the result was a significant decrease in dental decay. Currently, over 70% of the residents of Ontario receive fluoridated water.
 - According to the Centres for Disease Control and Prevention (CDC), community water fluoridation is one of the greatest public health achievements of the 20th Century.
 - The practice is supported by numerous national and international organizations including Health Canada, Ontario's Ministry of Health and Long-Term Care, the Public Health Agency of Canada, the Canadian Public Health Association, Ontario's Chief Medical Officer of Health, the Ontario Dental Association, the Canadian Dental Association, and the World Health Organization.
 - The safety of community water fluoridation has been extensively researched. In the past 15 years, there have been at least 18 reviews on water fluoridation which found the fluoridation of community drinking water to be safe and effective at preventing tooth decay. The reviews found no compelling evidence that community water fluoridation causes cancer, bone-disease, or any other adverse health effects.
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- Health Canada reviewed the latest available evidence on the benefits and potential risks from the fluoridation of community water in 2007 and concluded that the weight of evidence from all currently available studies shows no harmful health risk at current fluoride levels. The review concluded that fluoridation continues to be an effective public health strategy to prevent dental disease.

Peel Region (2)

as item HE-B1 responds to items which he was requested to report back to Regional Council, including the method of determining the recommended levels of fluoride to be added to drinking water and fluoride in toothpaste. The levels were determined by Health Canada and are consistent with provincially recommended levels. Dr. Mowat stated that Peel Public Health will continue efforts to increase awareness of the misrepresentation of toothpaste on television, noting that toothpaste advertisements show a larger amount of toothpaste on the toothbrush than what is recommended. He undertook to write to the Advertising Standards Council as well as provincial and federal Health authorities to draw attention to the issue.

With respect to the issue of liability or breach of regulatory process by municipal Councils who support the fluoridation of drinking water, he stated that the Region of Peel's current practice does not violate the various applicable legislation and that the two actions that have been brought to court regarding the fluoridation of municipal drinking water in Canada were successfully defended by the municipalities involved.

Councillor McCallion arrived at 10:47 a.m.

Dr. Mowat advised that since last reporting to Regional Council on the topic in April, 2011 he had received statements from Ontario Public Health and the Chief Public Health Officer of Canada supporting the practice of fluoridating drinking water. Dr. Mowat confirmed that it remains his advice to Regional Council that the existing practices of fluoridation of municipal drinking water remain safe, effective, equitable and an economical means of protecting the dental health of our population.

Items Related to Health – Item HE-B1 was dealt with.

HE-B. PUBLIC HEALTH

HE-B1. Fluoride Levels in Community Drinking Water and Toothpaste

Received 2012-13

See also Resolutions 2012-6 to 2012-12 inclusive, 2012-14, 2012-18 and 2012-19

Councillor Mullin placed the following motion and requested a recorded vote.

Moved by Councillor Mullin,
Seconded by Councillor Sprovieri;

That the Region of Peel request that Health Canada regulate the fluorosilicates hexafluorosilicic acid (H₂SiF₆) and sodium silicofluoride (Na₂SiF₆), used as a treatment for dental cavities in drinking water, as drugs under the *Food and Drugs Act*;

And further, that all chemicals, especially fluorosilicates, added to drinking water for the purpose of treating dental decay undergo new drug applications and be assigned drug numbers by Health Canada;

And further, that classification of fluorosilicates as drugs shall be based on at least one long-term toxicology study to determine health effects in humans;

And further, that at least one properly conducted, double blinded, randomized placebo controlled clinical trial be used to provide effectiveness as the basis for a new drug classification;

And further, that the Region of Peel make the above recommendations to Health Canada to reassure the citizens of Peel that the use of fluorosilicates added to drinking water for the purpose of treating dental decay is safe and what the health effects are;

And further, that a copy of this resolution be sent to the Federal and Provincial Minister of Health, and Peel area MPs and MPPs;

And further, that Peel MPs and MPPs be requested to follow up on this issue with the Ministers of Health and report back to Regional Council with a response.

In Favour: G. Carlson; F. Dale; P. Foley; C. Fonseca; S. Hames; N. Iannicca; K. Mahoney; H. McCallion; S. McFadden; G. Mi Moore; P. Mullin; R. Paterak; J. Sanderson; J. Sprovieri; R. Starr; J. Tovey; R. Whitehead

Total: 18

Opposed: Nil

Total: 0

Absent: B. Crombie; S. Fennell; M. Morrison; P. Palleschi; P. Saito; A. Thompson

Total: 6

Carried unanimously 2012-14

See also Resolutions 2012-6 to 2012-13 inclusive, 2012-18 and 2012-19

Regional Chair Kolb undertook to request that Health Canada provide a response to the Region of Peel recommendations within a specified timeframe.

Dr. Mowat undertook to provide Councillor Starr with information regarding the effects of drinking water fluoridation on the eco-system.

London (2)

TO:	CHAIR AND MEMBERS OF THE CIVIC WORKS COMMITTEE MEETING ON APRIL 23, 2012
FROM:	JOHN BRAAM, P.ENG. ACTING EXECUTIVE DIRECTOR, PLANNING, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT:	DRINKING WATER FLUORIDATION IN LONDON

RECOMMENDATION

That, on the recommendation of the Acting Executive Director, Planning, Environmental & Engineering Services & City Engineer, Municipal Council **RECEIVE** this report for information, and **APPROVE** a resolution stating the following:

WHEREAS at the municipal election of 1966, a plebiscite was conducted and Londoners voted in favour of fluoridation of the public water supply of the City;

AND WHEREAS the City of London's drinking water has been fluoridated since September, 1967, as per City of London By-law No. A.-3694-18, as authorized by the Fluoridation Act, and as regulated by the Ministry of the Environment;

AND WHEREAS at the Global Consultation on Oral Health Through Fluoride (2006), the World Health Organization (WHO), the World Dental Federation and the International Association for Dental Research reaffirmed the efficiency, cost-effectiveness, and safety of the daily use of optimal fluoride, and confirmed that universal access to fluoride for dental health is a part of the basic human right to health;

AND WHEREAS more than 90 national and international public health agencies have endorsed the use of fluoride at recommended levels to prevent tooth decay;

AND WHEREAS the U.S. Centers for Disease Control and Prevention declared fluoridation of drinking water to be one of the ten great public health achievements of the 20th century;

AND WHEREAS in June of 2011, Health Canada released the results of a multi-year, systematic review of the health risks associated with fluoride in drinking water and concluded that *"The weight of evidence from all currently available studies does not support a link between exposure to fluoride in drinking water at 1.5 mg/L and any adverse health effects..."*

AND WHEREAS the aforementioned Health Canada review also stated that *"... the optimal concentration of fluoride in drinking water for dental health has been determined to be 0.7 mg/L for communities who wish to fluoridate. This concentration provides optimal dental health benefits and is well below the MAC (Maximum Acceptable Concentration of 1.5 mg/L) to protect against adverse effect";*

AND WHEREAS in April of 2011, Dr. Arlene King, Ontario's Chief Medical Officer of Health issued a statement expressing concern *"about the loss of fluoridated drinking water in certain communities in spite of consistent evidence that water fluoridation is safe and effective";*

AND WHEREAS in February of 2011, the Board of Health for the Middlesex-London Health Unit unanimously supported the recommendation of Dr. Graham Pollett, Medical Officer of Health to *"support the ongoing fluoridation of the City of London's drinking water supply as a measure to achieve optimal dental/oral health for all residents, which is an important component of total health";*

THEREFORE BE IT RESOLVED THAT the Corporation of the City of London affirms its confidence in the integrity and recommendations of the World Health Organization, Health Canada, Ontario's Chief Medical Officer of Health, and the Medical Officer of Health for the Middlesex-London Health Unit, and thus supports the ongoing fluoridation of the City of London's drinking water.

(A)

Appendix 'B'

News Release

Communiqué

DRINKING WATER FLUORIDATION

STATEMENT FROM DR. ARLENE KING, CHIEF MEDICAL OFFICER OF HEALTH

NEWS

April 4, 2011

As Chief Medical Officer of Health for Ontario, I am very concerned about the loss of fluoridated drinking water in certain communities in spite of consistent evidence that water fluoridation is safe and effective.

Support for Water Fluoridation

More than 90 national and international professional health organizations, including Health Canada, the Canadian Public Health Association, the Public Health Agency of Canada, the Canadian Dental Association, the Canadian Medical Association, the U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization, have endorsed the use of fluoride at recommended levels to prevent tooth decay. In fact, the use of fluoride in drinking water has been called one of the greatest public health achievements of the 20th century by the CDC.

Benefits of Water Fluoridation

Combats Tooth Decay

The benefits of water fluoridation are well documented. According to expert research, fluoridated drinking water reduces the number of cavities in children's teeth, which contributes to their healthy development. Reductions of tooth decay have also been observed in adults and seniors who reside in communities with fluoridated water. Even with other sources of fluoride available today, the American Dental Association estimates that water fluoridation continues to be effective in reducing tooth decay by 20-40 per cent.

Conversely, removing fluoride from drinking water systems has the potential to contribute to increased rates of tooth decay. The findings of several studies, including from the CDC, suggest that tooth decay generally increases in a population after water fluoridation is discontinued. In addition, a 2007 report on water fluoridation by the Institut National de Santé Publique du Québec reveals that the percentage of kindergarten children at high risk of developing tooth decay in Dorval, Quebec doubled in the two year period after water fluoridation was halted in 2003.

Reduces Dental Care Expenditures and Inequalities in Health

Water fluoridation also has the capacity to help reduce dental care expenditures. The Ontario Dental Association has stated that the cost of waiting until tooth decay has manifested is significantly higher than the cost of preventing it in the first place. The CDC estimates \$38 in avoided costs for dental treatment for every \$1 invested in community water fluoridation. With the fluoridation of drinking water playing an important role in the overall promotion of good oral health and prevention of dental decay, I am concerned that removing it from drinking water may put a strain on, and impact the success of, important provincial programs such as the Children in Need of Treatment Program and Healthy Smiles Ontario - both developed to benefit those least able to afford dental services.

And indeed, removing fluoride from drinking water will place those least able to afford or access dental treatment at an increased risk for oral health problems. The health benefits of drinking water fluoridation extend to all residents in a community, regardless of age, socioeconomic status, education or employment.

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Safety of Fluoridated Drinking Water

Fluoride in drinking water is also safe. In Ontario, fluoride additives are required to meet rigorous standards of quality and purity before they can be used. When they are added to water at levels recommended in Ontario and across the country, studies have not linked fluoride to cancer, bone fractures or intelligence levels. Studies have also found that water fluoridation is safe for the environment, and poses no risk to plants and animals.

In addition, most dental fluorosis, a condition that occurs when a child receives too much fluoride during tooth development, is mild and appears as white stains on the teeth. In this mildest form, fluorosis may affect the look of a tooth, but will not affect its function. While moderate or severe fluorosis does occur, the Canadian Health Measures Survey: Oral Health Statistics 2007-2009 concludes that, "[so] few Canadian children have moderate or severe fluorosis that, even combined, the prevalence is too low to permit reporting. This finding provides validation that dental fluorosis remains an issue of low concern in this country."

Good Oral Health Means Good Overall Health

The importance of maintaining good oral health should not be taken lightly - it is an important part of being healthy overall. As tooth decay is the single most common chronic disease among Canadians of all ages and poor oral health is linked to diabetes, heart disease and respiratory conditions, water fluoridation is, and must be recognized as, a very important public health measure. An estimated 70 per cent of Ontarians currently have access to water that is fluoridated, and I would urge all Ontarians to continue to support the fluoridation of their municipal drinking water systems so that everyone can enjoy the lasting health benefits.