



**WATERLOO CHRONICLE** <http://www.waterloochronicle.ca/news/article/192073>

## Fluoridation facts

### Royal College of Dental Surgeons responds to questions raised by local debate

Bob Vrbanac, Chronicle Staff

Published on Oct 21, 2009



The president of the Royal College of Dental Surgeons has responded to questions regarding the practice of fluoridation in Waterloo, reaffirming to organization's support of its effectiveness in preventing cavities and its overall safety.

Dr. Frank Stechey, was responding to a list of questions provided by the Waterloo Chronicle after the Ontario regulatory body for the province's dentists refused to get into a war of words with the executive director of WaterlooWatch, Robert Fleming, over an open letter his group submitted to the organization in August. WaterlooWatch asked the college for the source science behind the positions it staked out in a policy statement adopted in 2003.

Dr. Stechey reiterated that the college is not responsible for the education of dentists and there is no legal or statutory requirement for dentists to agree with or implement its position on fluoridation.

But the college's governing council, made up of dentists and members of the public, voted unanimously in support of water fluoridation. They said the accepted facts determined by panels of international scientists from the World Health Organization, the U. S. Centre for Disease Control to Health Canada endorse the practice.

Since the college didn't want to get involved in the debate directly with anti-fluoridation groups, the Chronicle asked a number of its own questions.

Dr. Stechey's written response reiterated that fluoride is a naturally occurring mineral that is found in the soil, air and water supplies. The big advantage of water fluoridation is that it benefits all residents in a community, regardless of age, socioeconomic status, education, or employment or dental insurance status, he said. It particularly helps the underprivileged who are the hardest to reach with preventative measures.

Another major benefit is that it reduces the cost of dental care in Canada. As it stands now it is still the second largest item paid out by private insurers after drug treatments.

Like many natural substances, fluoride can be harmful in excessive amounts, but Dr. Stechey said changes made by Health Canada in 2007 ensures the exposure to fluoride remains below levels that could cause adverse health effects while still achieving a public health benefit of preventing cavities.

Overall, Dr. Stechey said the weight of evidence does not support a link between exposure to fluoride in drinking water at 1.5 mg/L and any adverse health effects involving cancer, reproductive or development effects or toxicity.

Fluorosilicic acid is the most commonly used compound used in the process and is derived from the production of phosphate fertilizers. Dr. Stechey said it is recovered in evaporators and condensed to a high purity fluorosilicic acid that can be used for water fluoridation. There are no radioactive materials included.

It's certified by a number of bodies including Health Canada, the National Sanitation Foundation and America National Standards Institute.

As for the cost associated with fluoridation, Dr. Stechey said the U. S. Centers for Disease Control and Prevention reports the annual cost of fluoridation is approximately 50 cents in communities equal to 20,000 people to approximately \$3 per person in communities equal to \$5,000 in 1995 dollars for all but the smallest water systems.

A CDC study also estimated that every dollar invested in community water fluoridation saved \$38 in avoided costs for dental treatment. At the same time the national cost to fill a cavity was \$65.

In addition to his response, Dr. Stechey attached a copy of the discussion paper prepared by the Federal- Provincial-Territorial Committee on Drinking Water in September 2009 for Health Canada. The federal ministry is still seeking public comment on fluoride in drinking water until November.

He also included three pages of websites and links to national, U. S. and international studies on the issue. The Chronicle will include a list of the links in its special coverage of the issue as the Nov. 8, 2010 plebiscite grows near.

While the list seemed comprehensive, it's interesting that one of those links Dr. Stechey cited was to the Systematic Review of Water Fluoridation done by the University of York looking at British and International data. The "York Review" is often used as scientific confirmation of the effectiveness of water fluoridation.

But the researchers involved with the York Review were so concerned about the continuing misinterpretations of their study that they published a companion piece about what their research really discovered.

The researchers said they were unable to discover any reliable, good-quality evidence in the fluoridation literature worldwide.

What evidence they did find suggested that water fluoridation was likely to have a beneficial effect, but that the range could be anywhere from a substantial benefit to a slight "disbenefit" to children's teeth.

This beneficial effect comes at the expense of an increase in the prevalence of fluorosis, which causes mottled teeth. However, the quality of this evidence was poor.

An association between water fluoridation and list of adverse health effects, like cancer, was not found. However, the researchers felt that not enough was known to draw a conclusion because of the poor quality of the evidence in the research reviewed.

Also the evidence about reducing inequalities in dental health was of poor quality, contradictory and unreliable.

Since the York Review was originally published in 2000, the researchers said there has been no other scientifically defensible review that would alter their findings. As emphasized in the report, only high-quality studies can fill in the gaps and not enough of that work has been done to date.

It's exactly that type of research that Fleming said he's been asking for, and is missing in the run up to Waterloo's plebiscite.

"What the college provided in a request for source science is nothing more the web links recounting the same opinions, endorsements and name dropping as always," said Fleming.

"Such claims, without scientific proof, remain meaningless regardless of how many times they're pointed to."

**WATERLOOCHRONICLE**  
.CA

<http://www.waterloochronicle.ca/news/article/192073>



© Copyright 2008 Metroland Media Group Ltd. All rights reserved. The reproduction, modification, distribution, transmission or republication of any material from this Metroland West Media Group website is strictly prohibited without the prior written permission of Metroland Media Group Ltd.

