

## **Response to Cooney PV, Sauve DC. 2006 An advocacy process to win a public water fluoridation referendum in Canada.**

Survey results comparing 4 and 5 year old children from Sudbury with Thunder Bay used by Dr. Cooney, Chief Dental Officer for Health Canada, are not scientifically valid measures of the oral status for several important reasons:

1. Children do not have their permanent teeth until about age 12.
2. 70 studies available (e.g. Komarek et al 2005) demonstrate that ingesting fluoride delays the eruption of teeth. Such a delay in tooth eruption also delays the onset of cavities. At any point in time, children receiving fluoridated drinking water will have fewer teeth, therefore fewer cavities.
3. Cavity rates are due to many complex socio-economic factors as discussed recently by the World Federation of Dentists (FDI). [Factors Affecting Oral Health](#). Unless these important variables are controlled, any conclusions made are scientifically invalid.
4. No attempt was made to control examiner bias in evaluating dental caries in this survey. Research shows that there is a 50% difference in number of dental caries found in the same child from one examiner to another. If the professional knows which child is from which municipality when he performs its evaluation, the bias is then both possible and probable.
5. If the hypothesis that systemic ingestion of fluoride is theoretically valid, there should be no cavities in a fluoridated community. Ample evidence suggests that inner city children living in fluoridated communities (from families who cannot afford to buy other sources of drinking water) have widespread cavities, despite the improvements seen in other socio-economic brackets. (Burt et al 2006, Broffitt et al 2007)
6. If the hypothesis that fluoridated water has sufficient fluoride concentration levels to be effective "topically", citizens would only need to gargle fluoridated drinking water – 3 times a day. Unfortunately, the US Centers for Disease Control have stated clearly that these fluoride concentration levels in saliva are NOT sufficient to prevent cavities.

**Selective omission** of research and reviews which does not agree with your opinion is **NOT SCIENTIFICALLY ACCEPTABLE**

Selective presentation of data by organizations with **known conflicts of interest and clear bias** makes their claims **highly questionable**.

# Cherry-Picking the Data Is Not Scientifically Acceptable

Dr. Cooney makes no effort to provide a scientifically valid "weight of evidence" approach to Canadian citizens concerning both risks and benefits.

[1977 Can NRC Review Environmental Fluorides,](#)

[2006 US NRC Review Fluorides in Drinking Water,](#)

[1999 Ont Min Health Review,](#)

[1979 Que Min of Environment Review,](#)

[1993 US Agency Toxic Substances Disease Registry Review,](#)

[2000 York Review,](#)

Iida & Kumar 2009 ([No Benefit - Definite Harm](#))

Fluoride Research Journal [www.fluorideresearch.org](http://www.fluorideresearch.org)

Bibliography of Scientific Literature on Fluoride:

<http://www.Slweb.org/bibliography.html>

Dan Fagin - Scientific American Magazine, January 2008

[http://www.waterloowatch.com/Index\\_files/Second%20Thoughts%20About%20Fluoride,%20Scientific%20American%20Jan-08.pdf](http://www.waterloowatch.com/Index_files/Second%20Thoughts%20About%20Fluoride,%20Scientific%20American%20Jan-08.pdf)

Broffitt B, Levy SM, Warren JJ, Cavanaugh JE. [An investigation of bottled water use and caries in the mixed dentition.](#) J Public Health Dent. 2007 Summer;67(3):151-8. "While bottled water users had significantly lower fluoride intakes, this study found no conclusive evidence of an association with increased caries."

Burt BA, et al. (2006). [Dietary patterns related to caries in a low-income adult population.](#) Caries Research 40(6):473-80. 800 low-income African American adults living in Detroit (fluoridated since 1967) were analysed. Tooth decay was "severe" and "extensive", with tooth decay rates reaching as high as 99.8% for individuals aged 14 to 35 years. NO RELATIONSHIP was found between the quantity of fluoridated water consumed & rate of tooth decay.

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. "Our analysis shows no convincing effect of fluoride-intake on caries development."