Fluoridation in London, Ontario: Advice versus Responsibility

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Fluoridation is unethical

When a community fluoridates its water the local government is doing to everyone what an individual doctor can do to no one – force citizens to take medical treatment without their informed consent. That violates modern medical ethics.

The local government is taking a huge responsibility here

Are local councilors medically qualified to give medicine to any one? Are they medically qualified to give the medicine to every one – to treat the whole community?

Advice versus responsibility

Health Canada, the Ontario Dental Association, and other professional bodies **RECOMMEND** that fluoride be added to the water – but they do not have – or accept - any legal responsibility in the matter – the **RESPONSIBILITY** falls on the local government decision makers that sanction the practice. It is they who actually give the go ahead to their water departments to add this substance to the public water supply of their citizens.

Accepting responsibility requires super confidence in this practice

To accept responsibility in this matter (i.e. override the individual's right to informed consent to medicine) one would have to have **super confidence** that swallowing fluoride a) actually did some good and b) caused no harm to any one in the community – even though when you use the water supply to deliver medicine you cannot control the dose people get and you cannot control who gets it – it goes to the very young, the very old, those who are sick, those who have poor kidney function and those who have poor nutrition (e.g. borderline iodine deficiency).

Fluoridation is irrational now that we know that fluoride acts on the surface of the teeth and not through some internal mechanism.

It does no good to swallow fluoride. Not one single process in the human body has ever been demonstrated to need fluoride. It is not an essential nutrient. If fluoride helps to fight tooth decay it does so by TOPICAL action on the surface of the enamel – not from inside the body (CDC, 1999, 2001). But on the other hand...

Swallowing fluoride can cause harm.

Many biological processes can be harmed by fluoride. There is no question that given a sufficient dose fluoride causes a whole range of harm to people – this has been demonstrated over and over again in countries that have high levels of fluoride in their water. These harmful effects have been thoroughly documented in the massive 507-page report of the U.S. National Research Council review "Fluoride in Drinking Water: A Review of EPA's standards" published in 2006. Chapter 2 in this review indicates that subsets of the population are exceeding EPA's safe reference doses. In short, there is no adequate margin of safety to protect everyone.

If fluoride does no good to the body but can cause harm, why swallow it? Why put it into everyone's water supply, when those who want fluoride can apply fluoridated toothpaste directly to their tooth surfaces.

Sadly, Canadian health authorities are not doing their job on this issue.

Even though some Canadian communities have been fluoridating for over 60 years there have been practically NO HEALTH STUDIES carried out in Canada— there has been NO MONITORING of side effects to see if some people are particularly sensitive to fluoride's toxic effects— there has been no monitoring of the levels of fluoride being reached in citizens' bones (blood, urine, hair etc) on a systematic basis. However, one rare Canadian health study has shown that fluoride bone levels are higher in fluoridated Toronto than in non-fluoridated Montreal, with indication of some changed bone structures (Chachra et al., 2010).

One harm is not even denied: dental fluorosis. 41% of US children aged 12-15 now have dental fluorosis (CDC, 2010).

It is reckless to assume that when fluoride is causing harm to the growing tooth cells that it is not causing harm to the growing bone cells, brain cells and other sensitive tissues in a baby's body.

Not one single health study has been conducted in Canada to see if there is any correlation with any ailments in children and the severity of dental fluorosis even though this is a simple biomarker of how much fluoride the child has been exposed to before the eruption of their secondary (permanent) teeth.

If you don't look, you don't find. The absence of study is not the same as absence of harm.

Instead of science we are getting politics from Canadian dental and health authorities.

Dr. Peter Cooney, Canada's chief dental officer (and also a lobbyist for the International Dental Federation, and industry funded group) told an audience in Dryden, Ontario before a referendum there in 2008. "I walked down your High Street today and I didn't see anyone growing horns and you have been fluoridated for 40 years!"

Health Canada: Politics not Science

When Health Canada reviewed this topic in 2008 somebody in the agency handpicked a panel of six experts to review the literature. 4 of these 6 experts were dentists with no toxicological training and known to be pro-fluoridation. **Who at Health Canada orchestrated this biased selection?**

Health Canada asked for public input but ignored independent scientific input when it was provided.

When Health Canada published a draft of their review in 2009 it was clear that it was **very superficial.** For example, of the 23 studies* that had been published showing an association between moderate exposure to fluoride and lowered IQ (see listing below), they only looked at 5. They asked for comments. I sent in citations to the 18 IQ studies that they had missed. When their final review was published in 2011 they had still only reviewed the 5 studies on IQ. In other words this was not science this was politics.

I also warned Health Canada that it was rash to rely on their "six experts" advice that they not take too seriously the findings of Bassin et al. (2006) that young boys exposed to fluoridated water in their 6th, 7th and 8th years had a 5-7 fold risk of succumbing to osteosarcoma (a frequently fatal bone cancer) by the age of 20. Their advice was based on the fact that Bassin's thesis advisor at Harvard – Chester Douglass –a promoter of fluoridation and consultant for Colgate – had promised in a letter (Douglass and Joshipura, 2006) that his larger study would refute her findings. I pointed out that Douglass's methodology could not refute Bassin's findings. Sure enough when Douglass's study was finally published after 5 years of waiting (Kim et al., 2011) it was a very poor study and failed miserably to refute Bassin. In other words we have a high quality – unrefuted - study, which indicates that fluoridation may actually be killing a few young men each year.

Health Canada asked for public input but ignored scientific input when it was given.

For some reason Health Canada feels obliged to continue to support this practice regardless of what harm it may be causing.

Medical Officers of Health (MOH).

Sadly, throughout Canada local Medical Officers of Health feel obliged to toe the party line on fluoridation. They do not see their job as carefully and scientifically reviewing the literature on this issue but are prepared to act merely as cogs-in-the-wheel of a public health policy determined by those above them in the chain of command.

A challenge to MOH to provide solid science in support of their position (not simply hiding behind self-serving and superficial reviews by Health Canada).

I know the above view of MOH behavior sounds harsh but it is the only conclusion I can come to after seeing the same "cookie cutter" presentations and assurances from these MOHs across Canada. If I am wrong on this I challenge one of them (or several working together) to produce a scientific critique of the book I co-authored with Dr. James Beck from Calgary and Professor Micklem from Scotland. (The Case Against Fluoride," Chelsea Green, 2010). Our Case Against Fluoridation is transparent. Every argument is backed up with citations from the scientific literature. There are 80 pages of references.

In the 14 months that has elapsed since the publication of this book there has yet to be one solid scientific rebuttal of our arguments. So much for the science of the proponents.

To return to my early statement.

This matter should not be determined by **the advice of other bodies** but by the willingness of communities to take full **responsibility** for the consequences of putting a known highly toxic substance into the drinking water (and administered using a contaminated industrial grade chemical containing known human carcinogens like arsenic for which there is no safe level) in order to deliver it in uncontrolled doses to the whole population, without any monitoring of side effects and without receiving the informed consent of every individual involved.

Does the London Council have full confidence in this practice?

Does London Council have that full confidence?

If it does not have this confidence then it should stop this outdated practice immediately.

If it does have that confidence, on what is that confidence based? Is it relying on some other body to tell it fluoridation is safe and effective? Has this body relieved the council of its own due diligence in

this matter? Has this body relieved you legal responsibility if any harm is caused?

* Two more IQ studies have been published after my comments were submitted to Health Canada (Ding et al., 2010 and Poureslami et al., 2011).

References

E. B. Bassin, D. Wypij, R. B. Davis, and M. A. Mittleman, "Age-specific Fluoride Exposure in Drinking Water and Osteosarcoma (United States)," Cancer Causes and Control 17, no. 4 (May 2006): 421–28.

CDC (1999). Centers for Disease Control and Prevention, "Achievements in Public Health, 1900–1999: Fluoridation of Drinking Water to Prevent Dental Caries," Mortality and Morbidity Weekly Review 48, no. 41 (October 22, 1999): 933–40, http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4841a1.htm.

CDC (2010). Beltrán-Aguilar ED, Barker L and Dye BA. Nov 2010, Prevalence and Severity of Dental Fluorosis in the United States, 199–2004 National Center for Health Satistics. http://www.cdc.gov/nchs/data/databriefs/db53.pdf

Chachra D, Limeback, H, Willett DL, and Grynpas, MD (2010). The Long-term Effects of Water Fluoridation on the Human Skeleton. *J Dent Res* 89(11):1219-1223.

Ding Y, Gao Y, Sun H, Han H, Wang W, Ji X, Liu X, Sun D. (2010). The relationships between low levels of urine fluoride on children's intelligence, dental fluorosis in endemic fluorosis areas in Hulunbuir, Inner Mongolia, China. *Journal of Hazardous Materials* doi:10.1016/j.jhazmat.2010.12.097.

C. W. Douglass and K. Joshipura, "Caution Needed in Fluoride and Osteosarcoma Study" (letter), Cancer Causes & Control 17, no. 4 (May 2006): 481–82.

Kim FM, Hayes C, Williams PL, et al. (2011). An assessment of bone fluoride and osteosarcoma. *J Dent Res.* 2011. doi: 10.1177/0022034511418828

NRC (2006). National Research Council of the National Academies, Fluoride in Drinking Water: A Scientific Review of EPA's Standards (Washington, DC: National Academies Press, 2006), http://books.nap.edu/openbook.php?record id=11571.

Poureslami HR, et al. (2011). International Journal of Paediatric Dentistry 21(Suppl s1):47.

References to the 23 IQ studies:

Twenty-three human studies that report an association of lowered IQ with fluoride exposure (links to the references cited here can be accessed at http://fluoridealert.org/caseagainstfluoride.refs.html.)

- Y. Chen, F. Han, Z. Zhou, et al., "Research on the Intellectual Development of Children in High Fluoride Areas," Fluoride 41, no. 2 (2008): 120–24, (originally published in 1991 in Chinese Journal of Control of Endemic Diseases), http://www.fluorideresearch.org/412/files/FJ2008 v41 n2 p120-124.pdf.
- X. Guo, R. Wang, C. Cheng, et al., "A Preliminary Investigation of the IQs of 7–13 Year Old Children from an Area with Coal Burning-Related Fluoride Poisoning," Fluoride 41, no. 2 (2008): 125–28 (originally published in 1991 in Chinese Journal of Endemiology), http://www.fluorideresearch.org/412/files/FJ2008_v41_n2_p125-128.pdf.
- F. Hong, Y. Cao, D. Yang, and H. Wang, "Research on the Effects of Fluoride on Child Intellectual Development Under Different Environmental Conditions," Fluoride 41, no. 2 (2008): 156–60 (originally published in 2001 in Chinese Primary Health Care), http://www.fluorideresearch.org/412/files/FJ2008 v41 n2 p156-160.pdf.
- X. S. Li, J. L. Zhi, and R.O. Gao, "Effect of Fluoride Exposure on Intelligence in Children," Fluoride 28, no. 4 (1995): 189–92, http://fluoridealert.org/scher/li-1995.pdf.
- Y. Li, X. Jing, D. Chen, L. Lin, and Z. Wang, "Effects of Endemic Fluoride Poisoning on the Intellectual Development of Children in Baotou," Fluoride 41, no. 2 (2008): 161–64 (originally published in 2003 in Chinese Journal of Public Health Management), http://www.fluorideresearch.org/412/files/FJ2008_v41_n2_p161-164.pdf.
- F. F. Lin, Aihaiti, H. X. Zhao, et al., "The Relationship of a Low-lodine and High-Fluoride Environment to Subclinical Cretinism in Xinjiang," Xinjiang Institute for Endemic Disease Control and Research; Office of Leading Group for Endemic Disease Control of Hetian Prefectural Committee of the Communist Party of China; and County Health and Epidemic Prevention Station, Yutian, Xinjiang, Iodine Deficiency Disorder Newsletter 7, (1991): 3, http://fluoridealert.org/scher/lin-1991.pdf; also see http://www.fluoridealert.org/IDD.htm.
- S. Liu, Y. Lu, Z. Sun, et al., "Report on the Intellectual Ability of Children Living in High-

- Fluoride Water Areas," Fluoride 41, no. 2 (2008): 144–47 (originally published in 2000 in Chinese Journal of Control of Endemic Diseases), http://www.fluorideresearch.org/412/files/FJ2008_v41_n2_p144-147.pdf.
- Y. Lu, Z. R. Sun, L. N. Wu, et al., "Effect of High-Fluoride Water on Intelligence in Children," Fluoride 33, no. 2 (2000): 74–78, http://www.fluorideresearch.org/332/files/FJ2000_v33_n2_p74-78.pdf.
- L. Qin, S. Huo, R. Chen, et al., "Using the Raven's Standard Progressive Matrices to Determine the Effects of the Level of Fluoride in Drinking Water on the Intellectual Ability of School-Age Children," Fluoride 41, no. 2 (2008): 115–19 (originally published in 1990 in Chinese Journal of the Control of Endemic Disease), http://www.fluorideresearch.org/412/files/FJ2008_v41_n2_p115-119.pdf.
- D. Ren, K. Li, and D. Liu, "A Study of the Intellectual Ability of 8–14 Year-Old Children in High Fluoride, Low Iodine Areas," Fluoride 41, no. 4 (2008): 319–20 (originally published in 1989 in Chinese Journal of Control of Endemic Diseases), http://www.fluorideresearch.org/414/files/FJ2008_v41_n4_p319-320.pdf.
- D. Rocha-Amador, M. E. Navarro, L. Carrizales, et al., "Decreased Intelligence in Children and Exposure to Fluoride and Arsenic in Drinking Water," Cadernos de Saúde Pública 23, suppl. 4 (2007): S579–87.
- B. Seraj, M. Shahrabi, M. Falahzade, et al., "Effect of High Fluoride Concentration in Drinking Water on Children's Intelligence," Journal of Dental Medicine 19, no. 2 (2007): 80–86. Note: English translation forwarded by lead author (B. Seraj, department of pediatric dentistry, faculty of dentistry, Tehran University of Medical Sciences), http://fluoridealert.org/scher/seraj-2007.trans.pdf.
- M. H. Trivedi, R. J. Verma, N. J. Chinoy, et al., "Effect of High Fluoride Water on Intelligence of School Children in India," Fluoride 40, no. 3 (2007): 178–83, http://www.fluorideresearch.org/403/files/FJ2007_v40_n3_p178-183.pdf.
- G. Wang, D. Yang, F. Jia, and H. Wang, "A Study of the IQ Levels of Four- to Seven-Year-Old Children in High Fluoride Areas," Fluoride 41, no. 4 (2008): 340–43 (originally published in 1996 in Endemic Diseases Bulletin [China]), http://www.fluorideresearch.org/414/files/FJ2008_v41_n4_p340-343.pdf.
- S. Wang, H. Zhang, W. Fan, et al., "The Effects of Endemic Fluoride Poisoning Caused by Coal Burning on the Physical Development and Intelligence of Children," Fluoride 41, no. 4 (2008): 344–48 (originally published in 2005 in Journal of Applied Clinical Pediatrics [China]), http://www.fluorideresearch.org/414/files/FJ2008_v41_n4_p344-348.pdf.
- S. X. Wang, Z. H. Wang, X. T. Cheng, et al., "Arsenic and Fluoride Exposure in Drinking Water: Children's IQ and Growth in Shanyin County, Shanxi Province, China," Environmental Health Perspectives 115, no. 4 (2007): 643–47, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1852689/.
- Q. Xiang, Y. Liang, L. Chen, et al., "Effect of Fluoride in Drinking Water on Children's Intelligence," Fluoride 36, no. 2 (2003): 84–94, http://www.fluorideresearch.org/362/files/FJ2003_v36_n2_p84-94.pdf. Also see Q. Xiang, Y. Liang, M. Zhou, and H. Zang, "Blood Lead of Children in Wamiao-Xinhuai Intelligence Study" (letter), Fluoride 36, no. 3 (2003): 198–99, http://www.fluorideresearch.org/363/files/FJ2003_v36_n3_p198-199.pdf.
- L. B. Zhao, G. H. Liang, D. N. Zhang, and X. R. Wu, "Effect of High-Fluoride Water Supply on Children's Intelligence," Fluoride 29, no. 4 (1996): 190–92, http://fluoridealert.org/scher/zhao-1996.pdf.

The following five Chinese I.Q. studies have not yet been translated:

- J. A. An, S. Z. Mei, A. P. Liu, et al., "Effect of High Level of Fluoride on Children's Intelligence" (article in Chinese), Zhong Guo Di Fang Bing Fang Zhi Za Zhi 7, no. 2 (1992): 93–94.
- Z. X. Fan, H. X. Dai, A. M. Bai, et al., "Effect of High Fluoride Exposure on Children's In Intelligence" (article in Chinese), Huan Jing Yu Jian Kang Za Zhi 24, no. 10 (2007): 802–3. Y. L. Xu, C. S. Lu, and X. N. Zhang, "Effect of Fluoride on Children's Intelligence" (article in Chinese), Di Fang Bing Tong Bao 9 (1994): 83–84.
- L. M. Yao, Y. Deng, S. Y. Yang, et al., "Comparison of Children's Health and Intelligence Between the Fluorosis Area with Altering Water Source and Those without Altering Water Source" (article in Chinese), Yu Fang Yi Xue Wen Xian Xin Xi 3, no. 1 (1997): 42–43.

J. W. Zhang, H. Yao, and Y. Chen, "Effect of High Level of Fluoride and Arsenium on Children's Intelligence" (article in Chinese), Zhong Guo Gong Gong Wei Sheng Xue Bao 17, no. 2 (1998): 119.