

October 10, 2018

Dear Civic Works Committee,

Because of recent research into the effects of ingested fluoride, the members of Safe Water London would like to request delegation status at your committee meeting on October 30, 2018 to speak about fluoridation.

We are aware that most people believe the following 12 conditions about fluoridation are true:

- 1) Fluoridation does not violate any federal or provincial laws or the constitution
  - i) Safe water act
  - ii) Ontario Clean Water Act
  - iii) Canadian Water Quality Guidelines
- 2) Fluoridation is not a violation of free choice
- 3) Fluoridation is not a violation of medical ethics
  - i) It is not mass medication
  - ii) Residents are not being denied informed consent
  - iii) It is not a violation of ethics because there is no diagnosis or follow-up
  - iv) Councillors are not practicing medicine without a license
- 4) Fluoridation does not harm the general population
  - i) Gastro-Intestinal Problems
  - ii) Joint and Muscle Pain
  - iii) Hypothyroidism
  - iv) Heart disease
  - v) Infertility
- 5) Fluoridation does not cause harm to infants and children
  - i) IQ loss
  - ii) ADHD
  - iii) Pre-mature birth
  - iv) Early onset of puberty
  - v) Colic
- 6) Fluoridation does not cause disproportionate harm to other at-risk populations
  - i) Those who drink more water,- Athletes, Outdoor labourers
  - ii) Those with kidney trouble
  - iii) Those with diabetes
- 7) Fluoridation does is not cause harm to the environment
- 8) Fluoridation is an effective way to deliver fluoride ions to the teeth
- 9) Fluoridation has a clinically significant effect
- 10) Fluoridation does not create dental costs that outweigh dental savings
  - i) Dental Fluorosis
- 11) The social benefits to fluoridation outweigh the city's actual costs
- 12) There are not more-cost-effective alternatives to preventing tooth decay

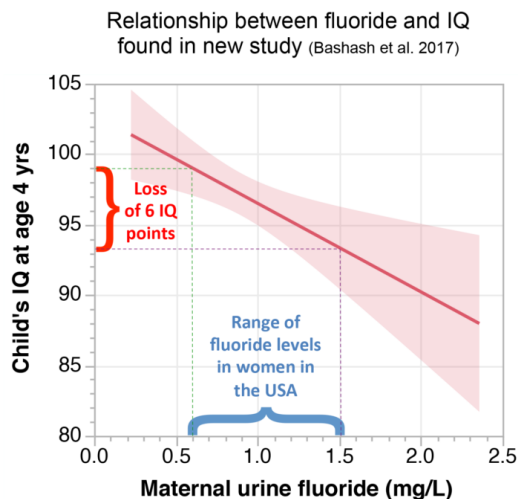
Unfortunately, we do not believe that any of these conditions are true and have scientific evidence to support this position. We hope to address a few of these conditions in our letter and the remainder at our delegation.

## Fluoride is a poison

Because of the fluoride ions they contain, fluoridation chemicals are poisonous. At concentrations higher than those used for fluoridating water, they can cause death, disfigurement or other tremendous chronic harms to the human body. Research in the last 5 years has made it clear that ingesting fluoride even by drinking “optimally fluoridated” water with concentrations around 0.7 parts per million is also causing harm.

## IQ Loss

Two studies, done in 2017 (Branish) and 2018 (Thomas), are the most disconcerting. In Mexico, they measure IQ at ages 4 and 6-12. When Canadian, USA and Mexican researchers matched this data to the fluoride concentrations in the urine of the pregnant moms carrying these children, they discovered an increasing impairment in cognitive function. A follow-up test of children 1-3 years confirmed that greater fluoride ingestion by the mother meant less mental capacity in the child, even at the levels we consume by drinking fluoridated water. When you consider that it requires 40 years of drinking fluoridated water to average one less cavity, there should be no reason to continue the process in light of the impairment that this developmental neurotoxin causes.



## ADHD

According to a 2015 Canadian study (Malin & Till) published in the Environmental Health Journal, each 1% increase in the prevalence of fluoridation in an area was linked to 100,000 additional reported cases of ADHD. In 2011, another study (Basha) found that the negative effects of fluoride on learning and memory were more significant in the second and third generations of rats, and the same effects can be expected in humans.

Philippe Grandjean, the head of research at Denmark University had this to say about fluoride, "We have found that lead, mercury and pesticides were more toxic than we originally thought. I am not willing to sit here and say okay, let's expose the next generation's brains and just hope for the best."

ADHD affects children for their entire life while having a cavity means half an hour of minor discomfort in a dentist's chair. This is not a trade off that can be continued.

### Fluoride concentrations

Fluoridation is just a strategy to get fluoride in contact with the teeth. According to the Center for Disease Control (CDC), normal saliva has 0.006 parts per million (ppm) of fluoride, and when drinking fluoridated water, that concentration increases to 0.016 ppm. Fluoride toothpaste has 1000 ppm, and fluoride treatments at the dentist's office are 10,000 ppm, so these two treatments have chemical effects that are tens and hundreds of thousands of times stronger than fluoridation. No one should expect that the action of fluoridation will be at all significant in comparison and the actual data shows that it is not.

### Misrepresentation

Deceptive mathematics have been used to make fluoridation sound like its effects are significant when it is not the case. The statistical methods used by the pro-fluoride professionals are highly criticized but it is important to understand how the misperceptions are perpetrated.

A US nation-wide comparison showed that two groups of children averaged 96.6+ healthy tooth surfaces out of 100 (which is very good). The hundred surfaces make it easy to convert to percentages. The non-fluoridated group averaged 3.4 decayed surfaces (or 3.4% decay) and the fluoridated group averaged 2.8 decayed surfaces (or 2.8% decay).

	Decayed Surfaces	Healthy Surfaces
Non-Fluoridated	3.4 (3.4%)	96.6 (96.6)%
Fluoridated	2.8 (2.8%)	97.2 (97.2%)
Absolute Difference	- 0.6 (-0.6%)	+0.6 (0.6%)
Percent Difference	- 17.6% (0.6/3.4)	+0.62% (0.6/96.2)

There is nothing dramatic about the difference. It is six-tenths of one surface out of a hundred surfaces (so less than one cavity). Obviously the absolute decrease in decayed surfaces (-0.6 or -0.6%) matches the absolute increase in healthy surfaces (+.6 or +0.6%)

However, when you express the difference of 0.6 surfaces as a percent of the 3.4 decayed surfaces or the 96.6 healthy surfaces, the exact same physical difference comes out to be 17.6% or 0.62%. Of the four figures that describe the study (-0.6%, +0.6%, -17.6% or +0.62%), the -17.6% number paints the least accurate picture, making the results seem dramatic. This is the figure used by the fluoride lobby to justify the program (and the continued research).

### **Professional Bias**

One might still take comfort in the tiny 0.6% dental health improvement but even that is an exaggeration. The professionals who conduct the studies generally have a pro-fluoridation bias and are conducting subjective examinations with a good idea of which subjects are in each group. The small improvement (of less than one surface difference) usually seen in these studies is actually the bias of the examiners being quantified. This makes sense because fluoridation does not provide enough fluoride to make a substantial difference. If it did, then our toothpaste must be fifty thousand times too strong.

The purpose of our short thesis was to demonstrate that Fluoridation, which was thought was safe and effective, is in fact neither. On October 30, I hope to provide more evidence that this program should really be ended.

Sincerely,

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Nicole Kuzmanovich

Safe Water London