

(Slide 1) Hello, my name is Cheryl Burr and I am a resident of Ward 4 in Windsor.

I strongly object to the fluoridation of the water supply for Tecumseh, LaSalle, and Windsor for a variety of reasons.

1. Its limited effectiveness in preventing dental decay.

- a. Slide 2 It is clear by these graphs with data from the World Health Organization that the decrease in dental decay over the past decades is not related to the fluoridation of the water, (slide 3) as countries with non-fluoridated water and salt have seen the same decrease in decay as those with fluoridated water. (Note the countries in the top graph use neither fluoridated water, nor salt. Also, those countries are not noted for any milk fluoridation programs, which are very limited in any event.) If water fluoridation were the cause of the decrease in dental decay, then we would not have expected to see the same decrease in non-fluoridated countries.(1-2)
- b. In 2015, the Cochrane Collaboration, the gold standard of comprehensive scientific reviews, set out to ascertain the efficacy of water fluoridation. (Slide 4) Newsweek reported on this important finding. “These papers determined that fluoridation does not reduce cavities to a statistically significant degree in permanent teeth, says study co-author Anne-Marie Glenny “ and (Slide 5), “From the review, we’re unable to determine whether water fluoridation has an impact on caries levels in adults,” Glenny says” (Slide 6) Newsweek further reports, “...Thomas Zoeller, a scientist at UMass-Amherst uninvolved in the work. “This study does not support the use of fluoride in drinking water.” Trevor Sheldon concurred. Sheldon is the dean of the Hull York Medical School in the United Kingdom who led the advisory board that conducted a systematic review of water fluoridation in 2000, that came to similar conclusions as the Cochrane review. (Slide 7) The lack of good evidence of effectiveness has shocked him. “I had assumed because of everything I’d heard that water fluoridation reduces cavities but I was completely amazed by the lack of evidence,” he says. “My prior view was completely reversed.” (3)

- c. Any potential benefits from fluoride are from topical application and not systemic (ingested). (Slide 8)
  - i. the Centers for Disease Control (CDC) stated in 1999 “*fluoride prevents dental caries predominately after eruption of the tooth into the mouth, and its actions primarily are topical for both adults and children.*”(4) (Slide 9) The National Research Council has concurred, stating in 2006 that “*the major anticaries benefit of fluoride is topical and not systemic.*”(5) As all of the fluoridated toothpaste available in the grocery stores, dollar stores and drug stores are very affordable, so everyone already has access to effective, topically applied fluoride.
- 2. (Slide 10) Fluoride is being used as a medication in an unethical manner.
  - a. (Slide 11) The municipality has a mandate to provide safe drinking water under the *Safe Drinking Water Act*, which prevails over the provisions of the *Fluoridation Act*. Fluoride does nothing to make the water safe to drink, in fact it may be making it harmful for many of the residents. (6)
  - b. (Slide 12) By Health Canada’s and the FDA’s standards, fluoride is a medication preventing the disease of tooth decay. (7-8)
  - c. So, the municipality is now contemplating medicating all if its residents in a ‘one-size fits all’ manner, as though the same amount in the water will be suitable for the 170lb healthy adult, as the two-year old, as the elderly, as the malnourished, as the person with kidney disease, and as the person with a thyroid disorder. The municipality cannot control the dosage ingested, which is a massive issue that cannot be overcome.
  - d. The municipality needs to be guided by the Principles of Biomedical Ethics. Namely: (Slide 13)
    - Autonomy – The right for an individual to make his or her own choice.
    - Beneficence – The principle of acting with the best interest of the other in mind.

Non-maleficence – The principle that “above all, do no harm,” as stated in the Hippocratic Oath.

Justice – A concept that emphasises fairness and equality among individuals.

Fluoridating the water doesn't meet a single point of these principles. (9)

(Slide 14) In fact, fluoridation is banned in most of Europe. Published academic papers have concluded that water fluoridation is a violation of medical ethics and human rights. (Slide 15) That it constitutes unlawful medical research and violates European Human Rights legislation. (10) So, I implore you to not force this toxic substance on your residents. We have the right to say “No” to this medical treatment.

However, any person or parent can easily choose for themselves or their children to use fluoridated toothpaste.

3. (Slide 16) Negative effects of fluoride.
  - a. The EPA classifies Fluoride as a Chemical with Substantial Evidence of Developmental Neurotoxicity. (11)
  - b. (Slide 17) A paper published in the Scientific World Journal in 2014, stated, “*The authors conclude that available evidence suggests that fluoride has a potential to cause major adverse human health problems, while having only a modest dental caries prevention effect. As part of efforts to reduce hazardous fluoride ingestion, the practice of artificial water fluoridation should be reconsidered globally...*” (12)
  - c. (Slide 18) The National Research Council's 2006 report (13) raised concerns of many negative effects that water fluoridation may cause including: problems with teeth and bones, as well as to affecting a wide range of systems in the body, particularly the brain and endocrine system. The report raises concerns about fluorides affect on IQ and an increased risk of Alzheimer's. (Slide 19)
  - d. This 2006 report shows that, even at ‘optimal fluoride levels’, the thyroid is affected, particularly if a person is iodine deficient. As I,

and many others, suffer from Hypothyroidism, I am particularly concerned with limiting my fluoride intake.

- e. This is one of the key points where our WECHU failed us. They submitted to Windsor City Council Public Health Ontario's 2018 report on Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010 – 2017) (14), which is misleading and flawed in its conclusion about the thyroid. (Slide 20) The report acknowledges that the thyroid and endocrine system may be affected by fluoride at .7ppm, particularly for people with low iodine levels. However, the report brushes this concern off because table salt in Canada is iodized, so they jump to the flawed conclusion that we can ignore this concern because nobody in Canada would have low iodine levels. How absurd.
- f. (Slide 21) Statistics Canada's data for 2009 to 2011 (15) show that 22% of Canadians are mildly deficient in iodine and 7 % are moderately deficient. That means that almost a third of Canadians are deficient in iodine! How can Dr. Ahmed and the WECHU so easily brush off the health of so many residents in order to spare a person 1 cavity over their lifetime? There have been numerous and recent studies regarding fluoride and hypothyroidism that I provided links to with my written submission. (16-18)
- g. Another extremely important finding that Dr. Ahmed brushed off with the Public Health Ontario report is the relationship between pregnant women consuming fluoride and the IQ of their offspring. (Slide 22) After 53 studies indicated a correlation between fluoride consumption and lowered IQ, a major, landmark study, which was funding by the National Institute of Health, was published in 2017 (19) continued to indicate that fluoride acts as a developmental neurotoxin and lowered children's IQ 5 to 6 points. Of note is that this study measured the fluoride levels in the urine, as that is a much more accurate way of estimated actual intake.

Again Dr. Ahmed, rather than looking out for our well-being and reading the research for himself, admitted he knew nothing about this research beyond the summary in the Public Health Ontario's report, which lightly dismissed any correlation.

(Slide 23) In October 2018, after the Public Health Ontario's report was published, yet another important study was published in a science journal. (20) This study measured the fluoride levels in the urine for pregnant women in Canada in fluoridated and non fluoridated communities. The levels for the women in fluoridated communities matched those women in Mexico that had children with lowered IQ.

Clearly, more research needs to be done, and on the Precautionary Principal, you should not approve the reintroduction of fluoride to our water supply. For the sake of the children, you shouldn't do it.

The financial costs of fluoride: (Slide 24)

Since it is proposed to use industrial grade chemical compound that includes arsenic and sometimes lead (21), rather than pharmaceutical grade calcium fluoride, the cost benefit analysis is skewed. The analysis also fails to include the costs families have to correct the fluorosis on the teeth. We paid \$464 in 2013 to have four of our daughter's front teeth covered in order to hide her fluorosis. Also, according to ball-park quotes from two local water filtration companies, it will cost our family \$2,000 to \$8,000 to remove the fluoride from our water, which is medically necessary as I have hypothyroidism.

Finally, the proponents for fluoride will misadvise you that the source of the fluoride doesn't matter, but that what comes out of our taps is only fluoride ions. It simply isn't true. The chemical compound that is used does not dissociate fully, in fact it may be only 66%

dissociated. (22) It also interacts synergistically with other elements in the water supply. (23)

The single study the proponents rely upon failed to replicate how water fluoridation occurs in a municipal setting. The study did not use industrial grade hydrofluorosilicic acid and is used nanopore water, so its conclusions cannot be carried over to our water supply.

Clearly, more research is required before we continue with the mantra that “water fluoridation is safe and effective”.

(Slide 25)

**If in doubt, leave it out.**

- (1) <https://fluoridealert.org/studies/caries01/>
- (2) Malmo University <https://www.mah.se/CAPP/Country-Oral-Health-Profiles/>
- (3) <https://www.newsweek.com/fluoridation-may-not-prevent-cavities-huge-study-shows-348251>
- (4) Centers for Disease Control and Prevention (CDC) Achievements in public health, 1900—1999: fluoridation of drinking water to prevent dental caries. *Morbidity and Mortality Weekly Report*. 1999;48(41):933–940.
- (5) SOURCE: National Research Council. (2006). Fluoride in Drinking Water: A Scientific Review of EPA’s Standards. National Academies Press, Washington D.C. p 16.
- (6) Safe Drinking Water Act, 2002, S.O. 2002, c. 32  
<https://www.ontario.ca/laws/statute/02s32>
- (7) <https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products.html>
- (8) <http://fluoridealert.org/researchers/fda/drug/>
- (9) <http://www.smile-onnews.com/article/view/water-fluoridation>
- (10) Int J Occup Environ Health. 2003 Jan-Mar;9(1):24-9. Fluoridation: a violation of medical ethics and human rights. Cross DW, Carton RJ.  
<https://www.ncbi.nlm.nih.gov/pubmed/12749628>  
<https://www.tandfonline.com/doi/abs/10.1179/107735203800328830>

- (11) [https://www.researchgate.net/publication/266871638\\_Building\\_a\\_Database\\_of\\_Developmental\\_Neurotoxicants\\_Evidence\\_from\\_Human\\_and\\_Animal\\_Studies](https://www.researchgate.net/publication/266871638_Building_a_Database_of_Developmental_Neurotoxicants_Evidence_from_Human_and_Animal_Studies)
- (12) Scientific World Journal, February 26, 2014  
Water Fluoridation: A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention  
[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956646/?fbclid=IwAR18RyYTUgrp2tqY4JsHSFeDti\\_OF5jy27fRG3AXdqhlHg1ZD4RBFYLUo4#B48](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3956646/?fbclid=IwAR18RyYTUgrp2tqY4JsHSFeDti_OF5jy27fRG3AXdqhlHg1ZD4RBFYLUo4#B48)
- (13) National Research Council. (2006). Fluoride in Drinking Water: A Scientific Review of EPA's Standards. National Academies Press, Washington D.C.  
Fluoride in Drinking Water: A Scientific Review of EPA's Standards (2006)  
<https://www.nap.edu/read/11571/chapter/9>
- (14) <https://www.publichealthontario.ca/en/eRepository/evidence-review-effects-drinking-optimally-fluoridated-water.pdf>
- (15) <https://www150.statcan.gc.ca/n1/pub/82-625-x/2012001/article/11733-eng.htm>
- (16) [http://www.ehcd.com/wp-content/uploads/2016/02/2016\\_02\\_11\\_ATALtrCWF.pdf](http://www.ehcd.com/wp-content/uploads/2016/02/2016_02_11_ATALtrCWF.pdf)
- (17) <http://www.multibriefs.com/briefs/icim/nutrition.pdf>
- (18) <http://yfile.news.yorku.ca/2018/10/14/study-shows-potential-effect-of-fluoride-on-thyroid-function-for-some-canadians/#.W8TkIWG-BvQ.twitter>
- (19) <https://ehp.niehs.nih.gov/doi/10.1289/ehp655>
- (20) [https://www.researchgate.net/publication/328202975\\_Community\\_Water\\_Fluoridation\\_and\\_Urinary\\_Fluoride\\_Concentrations\\_in\\_a\\_National\\_Sample\\_of\\_Pregnant\\_Women\\_in\\_Canada](https://www.researchgate.net/publication/328202975_Community_Water_Fluoridation_and_Urinary_Fluoride_Concentrations_in_a_National_Sample_of_Pregnant_Women_in_Canada)
- (21) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4090869/>
- (22) <http://www.fluoridealert.org/wp-content/uploads/westendorf.pdf>
- (23) <https://link.springer.com/article/10.1007/s10653-015-9699-7>