

Public hearing on Budget Reconsideration November 18,2024

My name is Art Matsui, I am a senior and a long time Calgary rate payer.

I am here today to advocate to Remove money from the budget. The allocation in question is the money allocated for Community Water Fluoridation (CWF)  
The budget for adding fluoride a known neurotoxin to the water system has ballooned to 28 million \$ with approximately 1 million per year in supplies and maintenance.

Since council approved the addition of Fluoride in November 2021 there has been a landmark decision on Fluoride in US District court that is binding on the US Environmental Protection Agency. The Conclusion is that water fluoridation at a level of 0.7 mg/l or 0.7 ppm which is the level that Calgary will maintain in our water system, presents an "unreasonable risk of injury to health or the environment." The most telling finding was that at 0.7 ml/l <sup>Fluoride</sup> poses an unreasonable risk of reduced IQ in children. This is in addition to the risk of skeletal fluorosis and increased bone fracture. This is of particular concern to seniors like myself.

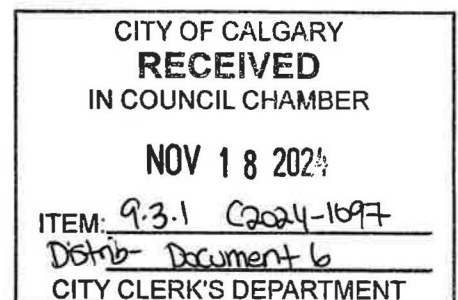
The other new data is the **Cochrane Library Review** on "Water Fluoridation for the Prevention of dental caries". This is a review of 157 studies up to August 2023. They have recalculated the benefit of fluoridation on children's caries to no benefit to one quarter of a tooth, because of better oral hygiene and the use of fluoridated toothpaste, compared to the studies that council relied on in 2021 and before.

I have appeared at Council on two previous occasions and have given two Notices to Council on the public record, that I do not consent to adding fluoride to the municipal water supply and that Council's actions are medicating me without my consent.

For the third and final time I am giving Notice that should Council proceed with adding fluoride to the Calgary and surrounding area's water supply, they are medicating me without my consent. Such addition of fluoride puts myself, a senior, at increased risk of bone fracture and I will be seeking compensation to mitigate this risk. Did council know that Hip fracture is one of the leading causes of death among seniors?

The compensation I seek will pale in comparison to the compensation that parents whose children have reduced IQ's because of the addition of fluoride at 0.7 mg/liter to the Calgary water supply. Council and administration now have knowledge from this monumental decision that adding fluoride to the water at the previously regarded as safe level of 0.7 ppm presents an "unreasonable risk of injury to health"

Council do the right thing, stop the fluoridation program and return the money to water pipeline maintenance where it belongs.



UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

FOOD & WATER WATCH, INC., et al.,  
Plaintiffs,  
v.  
UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY, et al.,  
Defendants.

Case No. 17-cv-02162-EMC

**FINDINGS OF FACT AND  
CONCLUSIONS OF LAW**

**I. INTRODUCTION**

In 2016, Congress amended the Toxic Substances Control Act (“TSCA”), empowering United States citizens to petition the Environmental Protection Agency (“EPA”) to consider whether a chemical presents an unreasonable risk of injury to health. *See* Pub. L. No. 114-182, 114th Congress (Frank R. Lautenberg Chemical Safety for the 21st Century Act) (the “Act”). The Act addresses the modern day reality that “human beings and the environment are being exposed each year to a large number of chemical substances and mixtures,” 15 U.S.C. § 2601(a)(1), and that, “among the many chemical substances and mixtures which are constantly being developed and produced, there are some whose manufacture, processing, distribution in commerce, use, or disposal may present an unreasonable risk of injury to health or the environment,” *id.* § 2601(a)(2).

To this end, under TSCA, as amended by the Act (“Amended TSCA”), a citizen is entitled to judicial review of the EPA’s denial of the citizen’s petition, wherein a court considers whether the chemical poses an unreasonable risk *de novo*, *i.e.*, without deference to the EPA’s decision. *See id.* § 2620(b)(4)(B). Amended TSCA sets up a system of judicial review that is remarkably different from the usual scope of judicial review of administrative actions under the Administrative Procedure Act, which confers substantial deference to administrative agencies. *See id.* Under Amended TSCA, the Court owes no deference to the EPA in assessing the risk posed by chemical substances. *See id.* If the Court finds anew that the chemical at issue presents

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Northern District of California

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1 the EPA used a LOAEL for developmental neurotoxicity, derived from the analysis of *one study*  
2 *conducted upon mouse pups* (Fredriksson et al., 1992). *See* Methylene Risk Evaluation at 262.  
3 Compare this with 6 (water fluoride) and 9 (urinary fluoride), high-quality, epidemiological  
4 studies of human populations underling the 4 mg/L LOAEL underlying the POD here. Dkt. No.  
5 431-2, Trial Ex. 68 at 39, 41 (eTable 4). The scientific literature in the record provides a high  
6 level of certainty that a hazard is present; fluoride is associated with reduced IQ. The qualitative  
7 evidence is superior.

8 120. In sum, the first three factors weigh toward finding the risk unreasonable. Namely,  
9 the severity of the hazard weighs toward finding the risk unreasonable. The exposure-related  
10 considerations and exposure of susceptible populations weighs *strongly* toward finding the risk  
11 unreasonable: millions of susceptible individuals are exposed to fluoride and the exposure is  
12 frequent and long-lasting. The two final factors, confidence in hazard data and overall strength of  
13 the evidence and uncertainties, are largely neutral. Because the first three factors weigh strongly  
14 toward finding the risk unreasonable and the last two are largely neutral, the totality of the factors  
15 establish that the risk is unreasonable under the Amended TSCA. The Court thus finds that the  
16 Plaintiffs have established by a preponderance of the evidence that the risk at issue is  
17 **unreasonable.**

18 **IV. CONCLUSIONS OF LAW**

19 121. Plaintiffs have proven, by a preponderance of the evidence, that water fluoridation  
20 at the level of 0.7 mg/L – the prescribed optimal level of fluoridation in the United States –  
21 presents an “unreasonable risk of injury to health or the environment, without consideration of  
22 costs or other non-risk factors, including an unreasonable risk to a potentially exposed or  
23 susceptible subpopulation under the conditions of use.” 15 U.S.C. § 2620(b)(4)(B)(ii).

24 122. The Court thus orders the Administrator to initiate rulemaking pursuant to  
25 Subsection 6(a) of TSCA. *See id.* §§ 2605(a), 2620(a).

26 123. The Court defers ruling as to whether Plaintiffs are entitled to recovery of their  
27 costs of suit and attorneys and expert witness fees. Parties are ordered to submit a proposed  
28 supplemental briefing schedule regarding costs and fees within two weeks of the date of this order.



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**Library**

Cochrane Database of Systematic Reviews

## Water fluoridation for the prevention of dental caries (Review)

Iheozor-Ejiofor Z, Walsh T, Lewis SR, Riley P, Boyers D, Clarkson JE, Worthington HV, Glenny AM, O'Malley L

Iheozor-Ejiofor Z, Walsh T, Lewis SR, Riley P, Boyers D, Clarkson JE, Worthington HV, Glenny A-M, O'Malley L.  
Water fluoridation for the prevention of dental caries.

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Water fluoridation for the prevention of dental caries (Review)

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carries-free participants for both primary and permanent dentition; adverse events. We stratified the results of the meta-analyses according to whether data were collected before or after the widespread use of fluoride toothpaste in 1975.

For our second objective, we included dental fluorosis (of aesthetic concern, or any level of fluorosis), and any other adverse events reported by the included studies.

**Main results**

We included 157 studies. All used non-randomised designs. Given the inherent risks of bias in these designs, particularly related to management of confounding factors and blinding of outcome assessors, we downgraded the certainty of all evidence for these risks. We downgraded some evidence for imprecision, inconsistency or both. Evidence from older studies may not be applicable to contemporary societies, and we downgraded older evidence for indirectness.

**Water fluoridation initiation (21 studies)**

Based on contemporary evidence (after 1975), the initiation of CWF may lead to a slightly greater change in dmft over time (mean difference (MD) 0.24, 95% confidence interval (CI) -0.03 to 0.52; P = 0.09; 2 studies, 2908 children; low-certainty evidence). This equates to a difference in dmft of approximately one-quarter of a tooth in favour of CWF; this effect estimate includes the possibility of benefit and no benefit. Contemporary evidence (after 1975) was also available for change in DMFT (4 studies, 2856 children) and change in DMFS (1 study, 343 children); we were very uncertain of these findings.

CWF may lead to a slightly greater change over time in the proportion of caries-free children with primary dentition (MD -0.04, 95% CI -0.09 to 0.01; P = 0.12; 2 studies, 2908 children), and permanent dentition (MD -0.03, 95% CI -0.07 to 0.01; P = 0.14; 2 studies, 2348 children). These low-certainty findings (a 4 percentage point difference and 3 percentage point difference for primary and permanent dentition, respectively) favoured CWF. These effect estimates include the possibility of benefit and no benefit. No contemporary data were available for adverse effects.

Because of very low-certainty evidence, we were unsure of the size of effects of CWF when using older evidence (from 1975 or earlier) on all outcomes: change in dmft (5 studies, 5709 children), change in DMFT (3 studies, 5623 children), change in proportion of caries-free children with primary dentition (5 studies, 6278 children) or permanent dentition (4 studies, 6219 children), or adverse effects (2 studies, 7600 children).

Only one study, conducted after 1975, reported disparities according to socioeconomic status, with no evidence that deprivation influenced the relationship between water exposure and caries status.

**Water fluoridation cessation (1 study)**

Because of very low-certainty evidence, we could not determine if the cessation of CWF affected DMFS (1 study conducted after 1975; 2994 children). Data were not available for other review outcomes for this comparison.

**Association of water fluoridation with dental fluorosis (135 studies)**

The previous version of this review found low-certainty evidence that fluoridated water may be associated with dental fluorosis. With a fluoride level of 0.7 parts per million (ppm), approximately 12% of participants had fluorosis of aesthetic concern (95% CI 8% to 17%; 40 studies, 59,630 participants), and approximately 40% had fluorosis of any level (95% CI 35% to 44%; 90 studies, 180,530 participants). Because of very low-certainty evidence, we were unsure of other adverse effects (including skeletal fluorosis, bone fractures and skeletal maturity; 5 studies, incomplete participant numbers).

**Authors' conclusions**

Contemporary studies indicate that initiation of CWF may lead to a slightly greater reduction in dmft and may lead to a slightly greater increase in the proportion of caries-free children, but with smaller effect sizes than pre-1975 studies. There is insufficient evidence to determine the effect of cessation of CWF on caries and whether water fluoridation results in a change in disparities in caries according to socioeconomic status. We found no eligible studies that report caries outcomes in adults.

The implementation or cessation of CWF requires careful consideration of this current evidence, in the broader context of a population's oral health, diet and consumption of tap water, movement or migration, and the availability and uptake of other caries-prevention strategies. Acceptability, cost-effectiveness and feasibility of the implementation and monitoring of a CWF programme should also be taken into account.

**PLAIN LANGUAGE SUMMARY**

**Does adding fluoride to water supplies prevent tooth decay?**

**Key messages**