

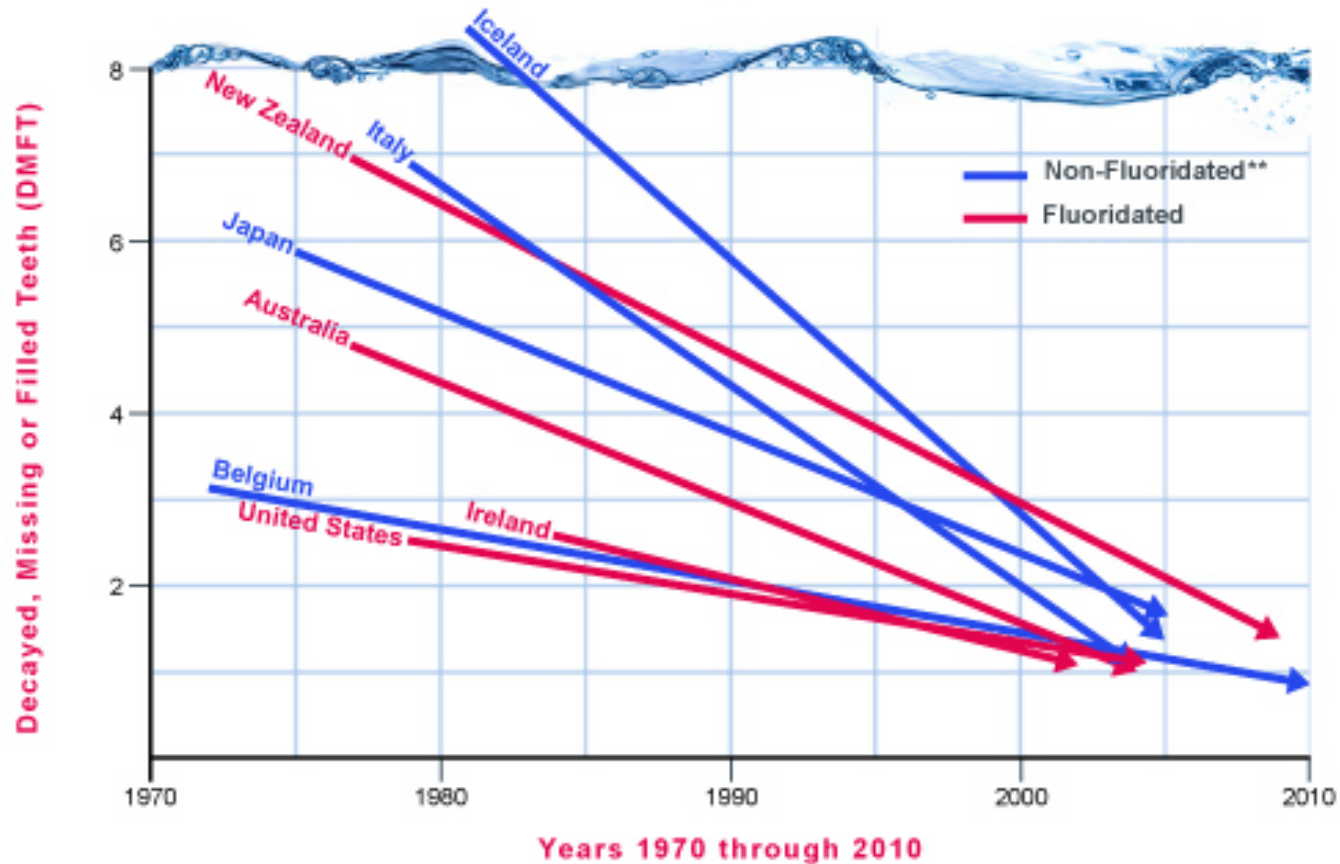
# Reasons to not fluoridate our water

Cheryl Burr



## Tooth Decay Trends in Fluoridated and Non-Fluoridated Countries

WHO data on DMFT in 12 year olds\*



\* World Health Organization (WHO). Collaborating Centre for Education, Training, and Research in Oral Health, Malmö University, Sweden. <http://www.mah.se/CAPP/> (accessed June 10, 2012).

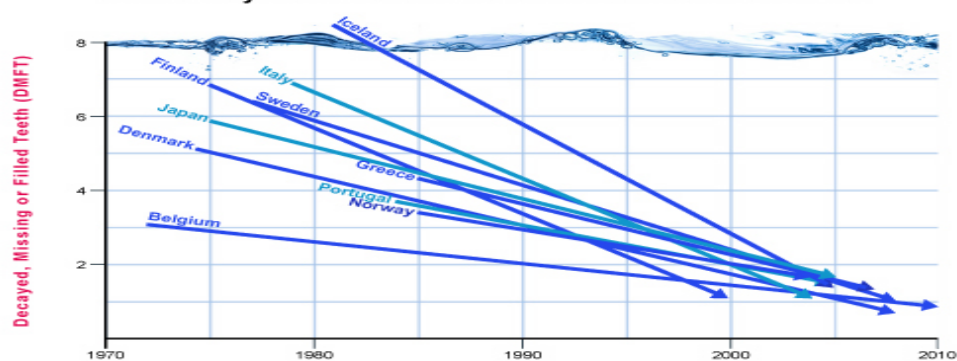
\*\* No water or salt fluoridation.



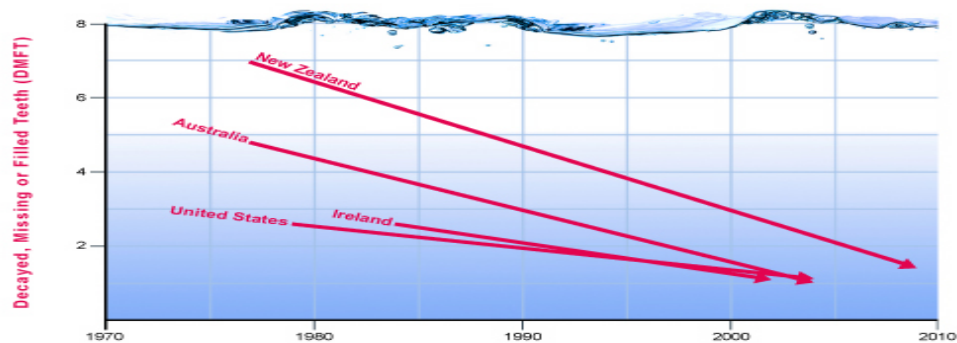
## Tooth Decay Trends in Fluoridated, Non-fluoridated and Partially Fluoridated Countries

WHO data on DMFT in 12 year olds\*

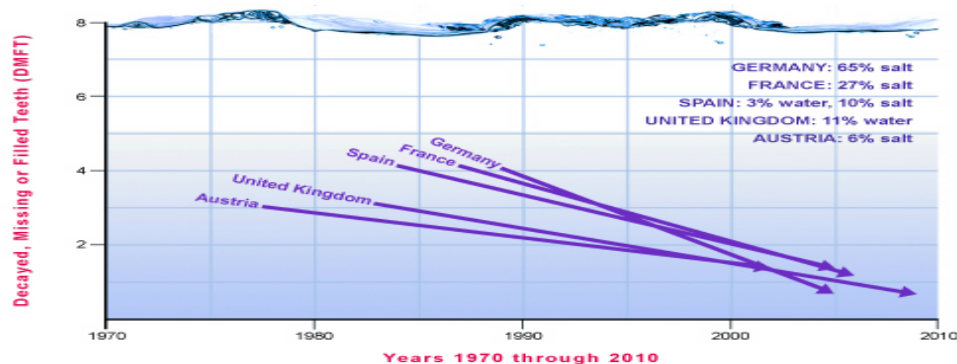
### Tooth decay in countries with NO water or salt fluoridation



### Tooth decay in countries that fluoridate most of the water



### Tooth decay in countries with some water or salt fluoridation



\* World Health Organization (WHO). Collaborating Centre for Education, Training, and Research in Oral Health, Malmö University, Sweden. <http://www.mah.se/CAPP/> (accessed June 10, 2012).

# The Cochrane Collaboration

These papers determined that **fluoridation does not reduce cavities to a statistically significant degree** in permanent teeth, says study co-author Anne-Marie Glenny, a health science researcher at Manchester University in the United Kingdom.

<https://www.newsweek.com/fluoridation-may-not-prevent-cavities-huge-study-shows-348251>

“Frankly, this is pretty shocking,” says Thomas Zoeller, a scientist at UMass-Amherst uninvolved in the work. “This study does not support the use of fluoride in drinking water.”

<https://www.newsweek.com/fluoridation-may-not-prevent-cavities-huge-study-shows-348251>



Trevor Sheldon, Hull York Medical School

“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.”

<https://www.newsweek.com/fluoridation-may-not-prevent-cavities-huge-study-shows-348251>

# The Centers for Disease Control

*“fluoride prevents dental caries predominately after eruption of the tooth into the mouth, and its actions primarily are topical for both adults and children.”*

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.

# The National Research Council

*“the major anticaries benefit of fluoride is topical and not systemic.”*

National Research Council. (2006). Fluoride in Drinking Water: A Scientific Review of EPA's Standards. National Academies Press, Washington D.C. p 16.






Water fluoridation is unethical.

# Safe Water Drinking Act

## Conflict

**166** (1) The provisions of this Act and the regulations prevail over the provisions of any other Act and any regulation made under any other Act, irrespective of when the other Act is enacted or the regulation is made under the other Act. 2002, c. 32, s. 166 (1).

- 
- *Health Canada describes a drug as: ... a product is offered for sale in Canada to treat or prevent diseases or symptom...”*
  - *The FDA defines Fluoride as a medication when it is used to prevent disease.*
  - *Health Canada describes tooth decay as a disease.*

# Principles of Biomedical Ethics

- **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.

Silicofluorides, widely used in water fluoridation, are unlicensed medicinal substances, administered to large populations **Without informed consent** or supervision by a qualified medical practitioner. Fluoridation fails the test of reliability and specificity, and, lacking toxicity testing of silicofluorides, constitutes unlawful medical research.

It is banned in most of Europe; European Union human rights legislation makes it **illegal**. Silicofluorides have never been submitted to the U.S. FDA for approval as medicines. The ethical validity of fluoridation policy does not stand up to scrutiny relative to the Nuremberg Code and other codes of medical ethics, including the Council of Europe's Biomedical Convention of 1999.





# Scientific World Journal

*“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...”*

Scientific World Journal, February 26, 2014

Water Fluoridation: A Critical Review of the Physiological Effects of Ingested Fluoride as a Public Health Intervention



# The National Research Council

- “...it is apparent that fluorides have the ability to interfere with the functions of the brain and the body by direct and indirect means.” p.222
- “More research is needed to clarify fluoride’s biochemical effects on the brain.” p.222
- “In summary, evidence of several types indicates that fluoride affects normal endocrine function or response; p.266
- “The effects of fluoride on various aspects of endocrine function should be examined further, particularly with respect to a possible role in the development of several diseases or mental states in the United States.” p.267

# The National Research Council

- “several lines of information indicate an effect of fluoride exposure on thyroid function.” p.234
- “it is difficult to predict exactly what effects on thyroid function are likely at what concentration of fluoride exposure and under what circumstances.” p.234-5
- “In humans, effects on thyroid function were associated with fluoride exposures of 0.05-0.13 mg/kg/day when iodine intake was adequate and 0.01-0.03 mg/kg/day when iodine intake was inadequate.” p.262-3

# Public Health Ontario

Hypothyroidism As per the 2010 Health Canada fluoride document, fluoride may adversely affect endocrine glands such as the thyroid. 7 The effects of fluoride on thyroid function might depend on the intake of iodine, as there is an association of thyroid dysfunction with low iodine intake; however, in Canada, this is unlikely to occur because iodized salt is mandatory.

Evidence Review for Adverse Health Effects of Drinking Optimally Fluoridated Water (2010 – 2017) iodized salt is mandatory.

# Statistics Canada – Iodine Levels

Iodine levels indicating a mild deficiency were found in 22% of Canadians aged 3 to 79 while a moderate deficiency was found in 7%

**Source:** Canadian Health Measures Survey, 2009 to 2011. The CHMS collects health information on the Canadian household population aged 3 to 79.

# Prenatal Fluoride Exposure and Cognitive Outcomes in Children at 4 and 6–12 Years of Age in Mexico

## **Conclusions:**

In this study, higher prenatal fluoride exposure, in the general range of exposures reported for other general population samples of pregnant women and nonpregnant adults, was associated with lower scores on tests of cognitive function in the offspring at age 4 and 6–12 y.

Journal of Environmental Health Perspectives


<https://doi.org/10.1289/EHP655>

## Community Water Fluoridation and Urinary Fluoride Concentrations in a National Sample of Pregnant Women in Canada

**RESULTS:** Creatinine-adjusted MUF values (mean  $\pm$  SD; milligrams per liter) were almost two times higher for pregnant women living in fluoridated regions ( $0.87 \pm 0.50$ ) compared with nonfluoridated regions ( $0.46 \pm 0.34$ ;  $p < 0.001$ ).

# The real costs of fluoride

- The cost-benefit analysis is skewed.
- Using industrial waste product rather than pharmaceutical grade fluoride
- Correcting dental fluorosis is expensive.
- Correcting four teeth in 2013 cost us \$464 and would cost \$496 in 2019
- It will cost my family thousands of dollars to install a water filtration system to remove the fluoride, which is medically necessary as I have hypothyroidism.



1975: Westendorf found that under physiological conditions, dissociation of silicafluorides was **no more than 66%** in the concentration range considered optimum for fluoridated water.

This study has not been disputed in the peer-reviewed literature.

<http://www.fluoridealert.org/wp-content/uploads/westendorf.pdf>



2006: Finney et al used a higher-than-pharmaceutical grade HFSA (rather than industrial grade toxic waste) and ultrapure deionized 'Nanopure' water devoid of impurities (rather than tap water). **This does not remotely reflect the reality of fluoridation, hence it does not justify the lack of proper toxicological studies.**



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