

Michael van Holst

- Chemical Engineering Degree
- Chemistry Teacher
- Avoiding fluoride for over 20 years.

- I want you to make my life easier, and less expensive by ending fluoridation.

Why we Fluoridate

- To help the poor

Why we should stop

- We have discovered associated health risks

Why there is a debate

- Some people think that both risks and forcing other people to take them are acceptable.

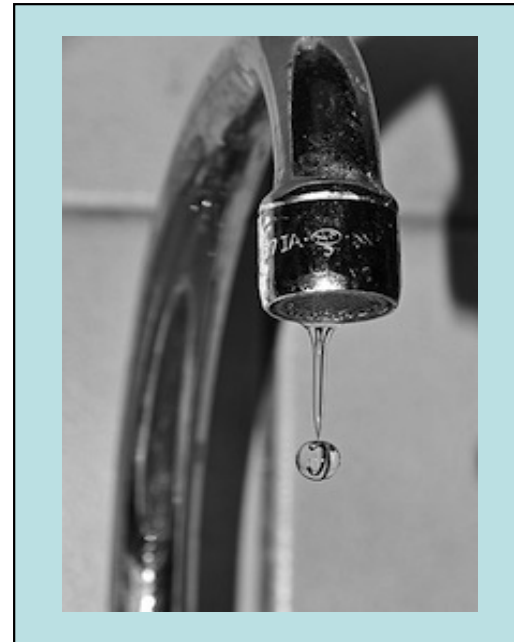
Does Fluoridation Make
Sense?

Two Ways to Fluoridate

At the Source



After the Tap



Neither may be very effective

Individualized Fluoridation

1 drop = 250ml of drinking water

1 ounce bottle = 1/2 year supply

Cost of Fluoride $\frac{1}{20} \text{¢}$

Cost of Dropper Bottle 25¢

Dollar store item



Advantages

- Less costly 😊
- Tap water remains safe for babies and people with sensitivities 😊
- No one is forced to use it 😊
- Dose can be controlled 😊
- Reduced environmental impact 😊

Fluoridation Overkill

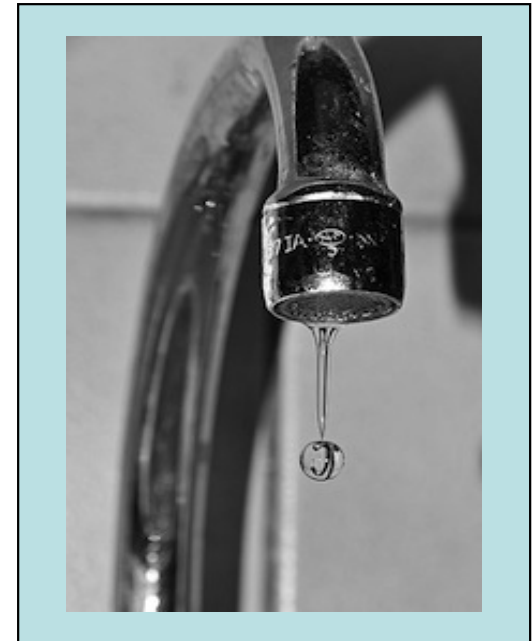
Amount of Fluoride Required

At the Source

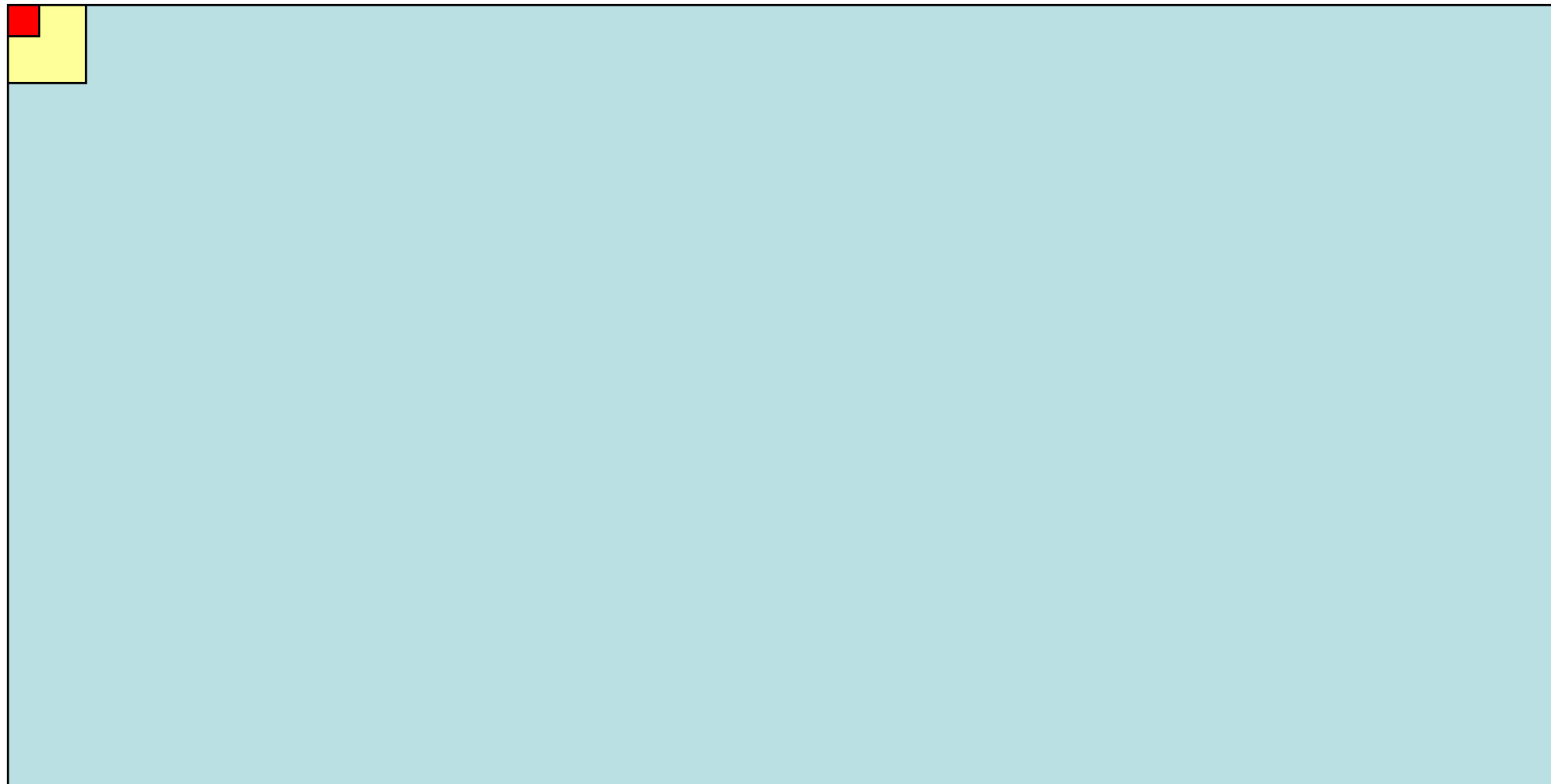


= 2000 x

After the Tap



Collateral Damage Fluoridation



- Drinking Water for Low Income Persons (15%)
- Drinking Water for all Persons (2 L / day)
- Total Fluoridated Water (2/3 plant capacity)

Observable Benefits

much fluoridation

little fluoridation

Ontario vs Quebec

2.025 cavities

2.275 cavities

1 fewer cavity for every 4 years.

TIME Specials

SEARCH TIME.COM

Environmental Toxins

Chemicals in plastics and other products seem harmless, but mounting evidence links them to health problems — and Washington lacks the power to protect us

Top 10 Common Household Toxins

Fluoride

By ALICE PARK Thursday, Apr. 01, 2010

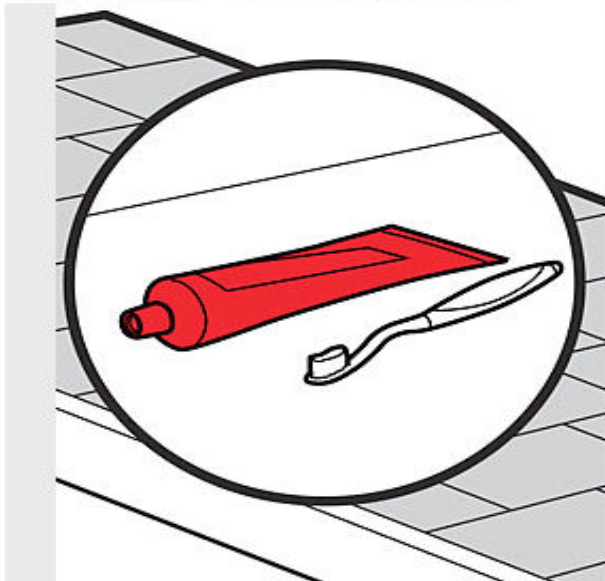


ILLUSTRATION BY JASON LEE FOR TIME

BACK

6 of 13

Hazards: Neurotoxic and potentially tumorigenic if swallowed;

What It Is: A form of the basic element fluorine

Found In: Toothpaste, tap water

Health Hazards: Neurotoxic and potentially tumorigenic if swallowed; the American Dental Association advises that children under 2 not use fluoride toothpaste

What You Should Know: Government studies support current fluoride levels in tap water, but studies on long-term exposure and cancers are ongoing

See TIME's special report on the environment.

What is the fuss?

- Why is there such resistance to ending fluoridation?
- Why are negative side effects being ignored?
- Why is fluoridation being promoted so heavily from the top down?
- What is driving fluoridation?

HFSA Suppliers

Disposal = \$7000/ton

Sale Price = \$1500/ton

Revenue = \$8500

+ Sales x 2000 !



What Should Canada Spend?

Collateral Damage Fluoridation

\$200 million

Individualized Fluoridation

\$100 thousand - pills instead

Decoding Science Double Talk

Political speech isn't even designed to communicate. Its purpose is to obscure communication in order to justify the unjustifiable."

George Orwell

Desired False Impression: Fluoride is safe

Statement: There is no evidence of harm

Interpretation: No safety study has been conducted

MSDS

Section 11: Toxicological Information

- Irritancy**..... Product is Corrosive
- Sensitization**..... **Not Available**
- Chronic Accute Effects**..... Liquid or Vapours can cause burns which will not be apparent for hours. Prolonged exposure can result in: bone changes, corrosive effect on mucos membranes, ulceration of nose throat and bronchial tubes, cough, shock, pulmenary edema, fluorosis, coma and death.
- Animal Toxicity**.....LD50(Oral Guinea Pig) 200mg/kg, LD50(Oral Rat) 90mL/kg
- Synergistic Materials**..... **Not Available**
- Carcinogenicity**...IARC group 3 Carcinogen (listed as**undefined**)
- Reproductive Toxicity**..... **Not Available**
- Teratogenicity**..... **Not Available**
- Mutagenicity**..... **Not Available**

MSDS

Section 12: Ecological Information

Fish Toxicity.....Not Available

Biogradability.....Not Available

Environmental Effects.....Not Available

Statement: There is no evidence to prove it is harmful

Interpretation: There is only clinical, anecdotal, circumstantial, corroborating and intuitive evidence indicating harm, but no peer reviewed double-blind study.

Statement: There is no evidence to prove it is harmful at the levels we use.

Interpretation: There is conclusive proof it is harmful at 4 parts per million but the test hasn't been duplicated for our lower level of 0.7ppm.

Argumentum Ad Hominem

Use personal attacks if your argument is weak.

Anyone who understands chemistry should expect fluoride to be harmful.

- 1) Fluoride is alien to the body.
- 2) Fluorine is the most reactive of all elements and is never displaced once it reacts.
- 3) The Fluoride ion is toxic.
- 4) Acutely toxic substances (lead, mercury) are often chronically harmful in low doses as well.

Fluoride in Drinking Water

At 2L of water / day =

A lethal dose spread out over 5 years

