SAFE DRINKING WATER?

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NEW “Safe” Level?

EPA and HHS lowered the safe level of fluoride in drinking water from the 50+ year established range of 0.7 mg/L – 1.2 mg/L down to a maximum level of 0.7 mg/L.

Finally admitting that we are getting too much fluoride from other sources.

41% of adolescents with fluorosis
Fluoride is not a nutrient nor essential for healthy teeth.

No study has ever shown a disease state resulting from lack of fluoride… nor is any American fluoride deficient.
fluoride's predominant effect is posteruptive and topical...
The prevalence of dental caries in a population is not inversely related to the concentration of fluoride in enamel (37), and a higher concentration of enamel fluoride is not necessarily more efficacious in preventing dental caries (38).


“The fluoride incorporated developmentally—that is, systemically into the normal tooth mineral—is insufficient to have measurable affect on acid solubility,” writes Featherstone.
“Even when the outer level enamel has higher fluoride levels, such as 1000 ppm, it does not measurably withstand acid-induced dissolution any better than enamel with lower levels of fluoride,” writes Featherstone.
WHO – Decay rates in 12 year olds same in fluoridated and non fluoridated communities (on line WHO data)

Warren et al 2009 “Iowa Study” “a caries free status may have relatively little to do with fluoride intake, while fluorosis is clearly more dependent on fluoride intake”

Newburgh’s children (fluoridated) after 50 years have the same decay rate as Kingston’s children (non fluoridated)

Brunelle and Carlos, 1990 Journal of Dental Research, found a difference of .6 of one tooth surface between fluoridated and non fluoridate communities
Fluoridation causes dental fluorosis
Warning sent to members only:
If liquid concentrate or powdered infant formula is the primary source of nutrition, it should be mixed with water that is fluoride free or contains low levels of fluoride to reduce the risk of fluorosis.
Review of EPA’s Standards for Fluoride in Drinking Water

Why warning was sent?

Dental Fluorosis

8.8 pound infant weights 4 kg

1 liter of water contains 1 mg F

1 mg F / 4 kg = 0.25 mg/kg
Review of EPA’s Standards for Fluoride in Drinking Water

Why was the warning sent?

Dental Fluorosis is caused by 0.05 mg/kg or less.
Examples and Degrees of Dental Fluorosis

January 2011, EPA/HHS recommended lowering from 1.2 ppm to 0.7 ppm fluoride in tap water due to Fluorosis rate at 41% for Teenagers and Young Children. NOW mandatory.
Concentration of Fluoride in water can be controlled

- The dose of Fluoride can not be controlled.
- Dose is dependent on concentration, the weight of the person, and the amount of water the person drinks.
- An infant drinks its weight in water every three to four days.
- NRC reports .03 mg/kg/day causes harm.
Review of EPA’s Standards for Fluoride in Drinking Water

Summary of endocrine effects in humans

- Increased PTH, secondary HPT
- Impaired glucose tolerance
- Increased goiters
- Elevated calcitonin
- Elevated TSH
- Altered T4 and T3
- Elevated TSH (iodine deficiency)
- Altered T4 and T3 (iodine deficiency)
- Increased goiters (iodine deficiency)

Intake, mg/kg/d F

at 1 ppm F
Resources

S Dr. Thieson- Adverse Health Effects from Fluoride in Drinking Water  www.youtube.com/watch?v=184eU7oQatI

S David Kennedy, DDS, Fluoride Information Officer, International Academy of Oral Medicine and Toxicology davidkennedydds@gmail.com

S Griffen Cole, DDS griffencole@yahoo.com
Systemic Effects

S Lyons, University of Utah, JAMA 1992, fluoridation associated with increase in hip fractures, US has highest rate of hip fractures

S Cancer link – 1977, in rats causes liver cancer and bone cancer, 1977 our government classified fluoride as a carcinogen

S Newburgh children reach puberty earlier, duplicated in animal studies

S Newburgh and Grand Rapids – increase in heart disease, (highest in country and increased 5 times respectively)
International Society for Fluoride Research in their journal Fluoride, articles showing fluoride causes thyroid disease, arthritis, CNS alterations, cardiovascular disease, breathing disorders, and links to Down’s syndrome

Bassin EB, et al 2006, Cancer Causes and Control, May 17 Age Specific fluoride exposure in drinking water and osteosarcoma, results: Increase risk of osteosarcoma especially in boys
Exposure to fluoridated water and attention deficit hyperactivity disorder prevalence among children and adolescents in the United States: an ecological association

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*Environmental Health 2015, 14:17

Results

State prevalence of artificial water fluoridation in 1992 significantly positively predicted state prevalence of ADHD in 2003, 2007 and 2011, even after controlling for socioeconomic status. A multivariate regression analysis showed that after socioeconomic status was controlled each 1% increase in artificial fluoridation prevalence in 1992 was associated with approximately 67,000 to 131,000 additional ADHD diagnoses from 2003 to 2011. Overall state water fluoridation prevalence (not distinguishing between fluoridation types) was also significantly positively correlated with state prevalence of ADHD for all but one year examined.
Duty to warn:

1. Families with small children
2. Endocrine impaired
3. Sensitive populations – kidney impaired, diabetics
4. Whose going to buy them bottled water?
Fluoridation
AWWA’s Opflo – 90% of arsenic found in water comes from fluoridation. After dilution the levels of Arsenic and Lead will exceed their respective MCLGs (maximum contaminant level goal).
Fluoridation: Hazardous Waste Disposal