

## **Appendix G**

### **HOW MUCH FLUORIDE DO WE NEED?**

#### **A. An excellent question was asked.**

“Where do you get .05 to .07 mg/kg bw/day? . . . In order to get .05 to .07, such a person would need to drink 3 to 7 liters of water. Such a person would “die” of over-hydration long before anything else.”

The NRC 2006 report provides good information on that fundamental question.

“The recommended optimal fluoride intake for children to maximize caries prevention and minimize the occurrence of dental fluorosis is often stated as being 0.05-0.07 mg/kg/day (Levy 1994; Heller et al. 1999, 2000). Burt (1992) attempted to track down the origin of the estimate of 0.05-0.07 mg/kg/day as an optimum intake of fluoride but was unable to find it.” NRC 2006 p 68.

The so called “optimum” amount of fluoride is not based on scientific evidence or research but is simply a dental tradition and estimate which over time has been taken for fact. The FDA is the most competent agency to determine recommended dosages for each age.

When a city “prescribes” a drug to everyone, everyone needs to be protected from an excess amount, ensure each patient is responding well and adverse events are explained and controlled. The FDA is the government authority which would require scientific evidence for “optimal” intake.

#### **B. How Much Ingested Fluoride Do We Need?**

**The answer is “none.”**

1. The absence of fluoride in the diet or on the teeth does not cause or result in any disease. Dental decay is not due to the absence of fluoride. For good health, the body does not “require” any fluoride. Fluoride is not an essential vitamin, mineral or element.
2. Nature did not provide infants with fluoride. Mother’s milk has almost no fluoride in it, 0.004 ppm average in nonfluoridated areas and in some mother’s milk the fluoride is not detected. Does the City have evidence that mother’s milk is defective and nature is flawed in protecting the infant from fluoride?
3. The FDA (Food and Drug Administration) is concerned that 0.25 mg of fluoride is too much. The FDA required toothpaste warning is not to swallow a pea size amount. A pea size of toothpaste

contains 0.25 mg of fluoride, the same amount as one glass of Fairbanks fluoridated water. If the FDA warns not to swallow 0.25 mg of fluoride, the City of Fairbanks should not force everyone to swallow more.

4. No randomized controlled trials have been done to determine how much fluoride is a benefit.
5. The research available on fluoride's systemic benefit is poor with "mixed" conclusions.
6. Suggestions of 0.05 mg/kg/day or about 3 mg for women and 4 for men of fluoride is the level of fluoride at which some are experiencing harm of dental fluorosis and medical problems.
7. The appropriate amount of ingested fluoride should be the same goal as arsenic and lead, zero.

### **C. How Much Ingested Fluoride Would be Beneficial?**

An "optimal" dosage of fluoride is controversial, in part because of the highly toxic nature of fluoride and lack of current measured benefit in fluoridated communities.

All medications have side effects and without proof of efficacy or safety, having the FDA approve dosage is of critical importance.