

FLUORIDE IN THE MUNICIPAL WATER SUPPLY IS AN IMPORTANT HEALTH ISSUE

On March 8, 2012 the Burlington City Council Subcommittee on Public Safety convened the second of two meetings on fluoride. The meeting ended with a two to one vote in favor of a motion to recommend removal of fluoride from the Burlington water supply until the fluoride at the current level of 0.7 milligrams per liter of water could be proven to be 100% safe. The meeting consisted of public comment from several area doctors, nurses, dental hygienist, dentists, and concerned citizens followed by a presentation by Dr. Steve Arthur, Vermont Department of Health, State Public Health Dentist.

It is not questionable whether fluoride enhances oral health, because studies show that fluoride use does reduce tooth decay. The two principle questions are how should we, as residents of Burlington, get fluoride and should it be through the public water system? Over the course of the two meetings, testimony was provided both favoring removal of fluoride from the public water system and continuing to fluoridate at 0.7 mg/L.

Principle arguments for removal were safety related and concern about medicating people without their consent. The safety concern is primarily around vulnerable groups such as children under age 1 who may drink baby formula made from tap water, and risk of developing osteosarcoma from fluoride use. Dr. Arthur reported that recently the CDC has determined that the lower level of 0.7 mg/L is safe for children less than one year. However, there may be other reasons for not using tap water for baby formula such as lead leaching from old pipes. Dr. Arthur reported that the study that suggested fluoride causes osteosarcoma has not been reproducible and that the Journal of Dental Research published a paper in 2011 that found no difference in the bone fluoride concentration between individuals with osteosarcoma and other tumors with the conclusion there is no association between fluoride in bone and osteosarcoma.

The principle argument for fluoridation is epidemiological studies carried out during the last five decades which provide strong evidence supporting the effectiveness and safety of water fluoridation in preventing coronal and root caries in children and adults. Further support of effectiveness comes from studies that indicate that caries experience increases in communities that no longer fluoridate the water supply and where there are few other exposures to fluorides. Also that dental disease is the number one chronic illness in children. For the first time in 40 years there is an increase in dental cavities most notably in the 2-5 year age group according to the Centers for Disease Control and Prevention (CDC). The prevalence of multiple cavities is also increasing. In FY 2009 421 claims were submitted for Vermont children ages 0-5 that were seen in a hospital setting under general anesthesia to treat dental decay / for removal and restoration of teeth. The average cost per child was \$6079, so the total cost was around \$2,559,259, 346 of the 421 claims were paid for with Medicaid dollars (82%), so the cost to Medicaid specifically was \$2,103,334-over 2 million dollars to treat a disease that is almost completely preventable. Vermont spends almost the same amount of money (\$2,046,642.43 in FY 10) on General Assistance Vouchers for low income adult Vermonters seeking dental care for pain/infection/bleeding (emergency care). The average claim was \$504.85 (usually extractions). The mean annual per capita cost of fluoridation is \$0.98 for systems serving between 10,000 and 50,000.

The Burlington Board of Health, the Vermont Department of Health, the Centers for Disease Control, the World Health Organization, the American Dental Association, the American Medical Association, and the American Association of Pediatrics recommend fluoridating the water.

Fluoride in the municipal water supply is an important issue for our community to resolve. Please write or call your city councilors to let them know what you think.

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Chair
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