



## Response to Fluoridation Commentary Sent By Milwaukee Alderman Jim Bohl To Council Members of Green Bay

Steven D. Slott, DDS  
Communications Officer  
American Fluoridation Society  
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The following is a point-by-point response to the misinformation recently sent to Green Bay Council members from Milwaukee Alderman Jim Bohl, in regard to the public health initiative of water fluoridation.

*1. Bohl: In the event you were not aware, in 2012 Milwaukee adopted a resolution reducing fluoridation of Milwaukee Water to a rate not to exceed .7 ppm and also opted to direct the Milwaukee Water Works and Health Department to include infant notices because of both the inherent risks that a U.S. EPA (Environmental Protection Agency) recognized neurotoxin presents to low body weight infants who may be on a strict water diet during the first 6 months of age.*

#### Facts:

A. While the claim that a resolution was adopted is true, Bohl's implication that the "infant notices" were in regard to concerns of neurotoxicity of fluoride is false. The resolution to which he refers, directed the Water Works to reduce the concentration of fluoride in the public water supply to 0.7 mg/liter, as per the anticipated resetting of the DHHS recommended optimal level range of 0.7 mg/liter - 1.2 mg/liter to simply the low end of that range. 0.7 mg/liter. (This reset became official in 2015). This recommendation was in regard to all of the nearly 75% of the US water systems which are fluoridated, not simply for Milwaukee.

As is clearly stated in the resolution, the "infant notices" had nothing to do with any concerns of neurotoxicity. There is no mention of "neurotoxicity" anywhere in the resolution. It was simply in regard to the chance of development of mild dental fluorosis in developing teeth of infants bottle-fed powdered infant formula reconstituted with optimally fluoridated water. Mild dental fluorosis is a barely detectable effect which causes no adverse effect on cosmetics, form, function, or health of teeth. As peer-reviewed science has demonstrated mildly fluorosed teeth to be more decay resistant, many consider this effect to not even be undesirable, much less adverse. Putting such notices in water bills and elsewhere, is unnecessary and simply a disingenuous effort by fluoridation opponents to portray the inconsequential effect of mild dental fluorosis as being a major problem. (1)

From the Resolution:

"Further Resolved, The infant advisory notice shall include the following statement:

"The American Academy of Pediatrics recommends exclusive breastfeeding for the first 6 months of a child's life, followed by continued breastfeeding as complementary foods are introduced, for optimal short- and long-term health advantages. Go to <<http://pediatrics.aappublications.org/content/129/3/e827.full>> for more information."

"As of (City Clerk to insert date) City of Milwaukee water is fluoridated at a level of 0.7 mg/L. According to the Centers for Disease Control (CDC), for infants up to 6 months of age, if tap water is fluoridated or has substantial natural fluoride (0.7 mg/L or higher) and is being used to dilute infant formula, a parent may consider using a low-fluoride alternative water source. Bottled water known to be low in fluoride is labeled as purified, deionized, demineralized, distilled, or prepared by reverse osmosis. Ready-to-feed (no-mix) infant formula typically has little fluoride and may be preferable at least some of the time."

"If breastfeeding is not possible, parents should consult a pediatrician about an appropriate infant formula option. Parents should be aware that there may be an increased chance of mild dental fluorosis if the child is exclusively consuming infant formula reconstituted with fluoridated water. Dental fluorosis is a term that covers a range of visible changes to the enamel surface of the tooth." (2)

B. There is no valid, peer-reviewed scientific evidence of any "inherent risks" of optimal level fluoride to "low body weight infants who may be on a strict water diet during the first 6 months of age.", or to anyone else, of any age, or body weight.

C. Fluoride has been on the EPA list of neurotoxins for the past decade. This list does not take into consideration concentration levels. On this same list are such commonly ingested substances as aspartame (sweetener), ethanol (beer and other alcoholic beverages), salicylate (aspirin), caffeine, and nicotine. Fluoride at the optimal level at which water is fluoridated is no more neurotoxic than are any of these substances at their proper use levels. (3)

*2. Bohl: Lastly, newborn infants aren't even beginning the teething process during the first 6 months, and so even if one supported the arguments of water fluoridation proponents, there would be no purpose in consuming an unnecessary foreign additive*

Facts:

A. The benefit of ingested fluoride begins in the tooth development stage, not at the beginning of the teething process. This is clearly demonstrated by the mild dental fluorosis which fluoridation opponents attempt to make into a health concern that it is not. Mildly fluorosed teeth are more decay resistant. Dental fluorosis can only occur during the teeth development stage. Primary (baby) teeth start to form between the sixth and eighth week of prenatal development, and permanent teeth begin to form in the twentieth week. This is the benefit of ingesting optimal level fluoride at this stage. (4)

B. There is no "foreign additive" ingested as a result of water fluoridation. There are only fluoride ions, identical to those fluoride ions which have always existed in water, and which humans have ingested in that water since the beginning of time. Additives utilized in fluoridation to increase the level of these fluoride ions are gone before the water reaches the tap.

The substance most widely utilized to fluoridate water systems is hydrofluorosilic acid (HFA). Once introduced into drinking water, due to the pH of that water (~7), the HFA is immediately and completely hydrolyzed (dissociated). The products of this hydrolysis are fluoride ions identical to those which have always existed in water, and trace contaminants in barely detectable amounts that are so far below US EPA mandated maximum allowable levels of safety that it is not even a certainty that those detected aren't that already exist in water naturally. After this point, HFA no longer exists in that water. It does not reach the tap. It is not ingested. (5) (6)

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*3. Bohl: While there is an ongoing heated debate between opponents and advocates over the use of water fluoridation, the Milwaukee Common Council found there to be no questions about the concern to vulnerable infant populations and that is reflected in the unanimously supported resolution that I've attached for you here.*

Facts:

A. There is no debate about the public health initiative of water fluoridation. There are simply the facts, evidence, and peer-reviewed science, which clearly support fluoridation....and the false statements, unsubstantiated claims, and misinformation, of fluoridation opponents. This "information" provided by Mr. Bohl, a fluoridation opponent, could not be any clearer demonstration of this fact.

B. As demonstrated in this refute of Bohl's claims, if the Milwaukee Common Council "found there to be no questions about the concern to vulnerable infant populations" from optimally fluoridated water then they failed to properly research this issue from respected, reliable sources, and failed to verify the validity of all claims made by presenters of information.

However, given the actual wording of the resolution, coupled with the dubious claims made by Mr. Bohl, it is clear that the Council simply affirmed a resolution in keeping with the recommendations of the United States Department of Health and Human Services, and gave a cursory nod to fluoridation opponents such as Mr. Bohl, in agreeing to a benign "infant advisory notice" in regard to mild dental fluorosis.

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4. *Bohl: In shaping the language for the infant advisory, the city used language directly from the American Academy of Pediatrics and federal agencies.*

Facts:

Yes there is language in the "infant advisory" from the American Academy of Pediatrics. However, this language is a statement on breastfeeding, which is of no relevance to water fluoridation. It made no mention of "neurotoxicity" or any other adverse effects from optimal level fluoride. The American Academy of Pediatrics is a strong supporter of water fluoridation. Its website, [www.ilikemyteeth.org](http://www.ilikemyteeth.org), has a wealth of accurate, authoritative information on fluoridation readily available to anyone.

As Mr. Bohl obviously believes the American Academy of Pediatrics to be a respected source in regard to the health and well-being of infants and children, it is a mystery as to why he completely disregards the recommendations of the AAP in regard to fluoridation, and instead relies upon misinformation from the antifluoridationist faction, "fluoride action network".

From the resolution:

"The American Academy of Pediatrics recommends exclusive breastfeeding for the first 6 months of a child's life, followed by continued breastfeeding as complementary foods are introduced, for optimal short- and long-term health advantages." (2)

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5. *Bohl: Along with the resolution attached, you will find a trove of research studies and information on the topic of fluoridation which was weighed by the City of Milwaukee's Council.*

Facts:

This "trove" consists of such information as:

- Proceedings from Council meetings in the 1950s
- Personal emails
- Scientific data which has been misrepresented by "fluoride action network"

- Long since discredited arguments of "fluoride action network" personnel Paul Connett and Bill Osmunson
- Articles from dubious publications
- Studies which are of no relevance to fluoride at the optimal level
- Personal opinions of antifuoridationists, guised as "press releases"
- Articles that do not support antifuoridationist arguments
- "Affidavits" from, antifuoridationists, consisting of unsubstantiated personal opinions and misinformation
- Studies which have been refuted by peer-reviewed science
- Articles from antifuoridationist groups
- "Petitions" from antifuoridationists
- Irrelevant studies published in the biased antifuoridationist publication, "Fluoride"
- Studies of fluoride at concentrations of no relevance to the optimal level at which water is fluoridated
- Mis-informative "News Releases" from Mr. Bohl, himself.
- Power-Point presentations from "fluoride action network's" Paul Connett and Bill Osmunson
- .....and on....and on.....and on.....

There is little, if anything, in this "trove" that is of any relevance, validity, or credibility, in regard to community water fluoridation.

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*6. Bohl: I myself believe strongly the need for (unsolicited adding of fluoride by a municipal water works) consumed fluoride to be outdated based upon a push largely in the 1950's and 1960's, before tooth paste first began incorporating fluoride for topical use (including spitting out unused tooth paste- which mandated federal government agencies warn us not to swallow) around 1970.*

Facts:

A. Water fluoridation is based on the most current, up-to-date science available. This is in contrast to the decades-old material in Mr. Bohl's "trove" of information. A list of peer-reviewed studies on effectiveness of fluoridation, dating through 2015, is included at the end of this document.

B. Toothpaste contains fluoride at a concentration 1200-1500 times that of fluoride in optimally fluoridated water. That is the reason for the FDA mandated warnings not to swallow, located on the toothpaste tubes.

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7. *Bohl: The fact that studies show 96-97 percent of water is not consumed (flushing toilets, watering lawns, taking showers, etc.) further shows the financial and unnecessary waste of fluoridation an "added medicine" to the water.*

Facts:

A.

- Countless, peer-reviewed scientific studies clearly demonstrate the effectiveness of fluoridation in the prevention of dental decay in entire populations
- In the 71 year history of fluoridation there have been no proven adverse effects
- At a cost of less than \$1 per person, per year for fluoridation, there is no such preventive measure which even approaches the cost-effectiveness of fluoridation
- Peer-reviewed science has demonstrated there to be no adverse effects on the environment from optimally fluoridated water. (7)

Given these facts, it makes no difference how much fluoridated water "is not consumed (flushing toilets, watering lawns, taking showers, etc.)". Fluoridation works as it is supposed to work, in the most cost-efficient manner possible, with no adverse effects.

If one were to accord credence to Mr. Bohl's reasoning, public water supplies should not be chlorinated. In order to prevent all of that chlorine from being wasted in "flushing toilets, watering lawns, taking showers, etc", in lieu of chlorinating the entire water supply, each individual should instead be issued chlorine tablets to drop into each glass of water prior to drinking it.

Obviously, this is ludicrous.

B. There is no medicine, and no force, involved in water fluoridation. There are simply fluoride ions, identical to those which have always existed in water. No court of last resort has ever affirmed the "forced medication" argument, in spite of repeated attempts by fluoridation opponents through the decades.

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8. *Bohl: Lastly, there is the significant tide of ongoing health research, federal EPA designation of fluoride as a known dangerous toxin and the ethical objection to using public water systems to medicate water without control over the dose and without consent, as added reasons why I believe fluoridation to be unnecessary.*

A. There is no "significant tide of ongoing research" in regard to water fluoridation which is any different from the "tide" fluoridation opponents have been attempting since the very beginning of the initiative 71 years ago. The same arguments are simply repackaged for use by each new generation of activists. There is no, new evidence, or information which casts any valid doubt on what has been clearly demonstrated over the past 7 decades...fluoridation prevents significant amounts of dental decay in entire populations, while causing no adverse effects.

B. There are no "ethics" concerns involved in water fluoridation

C. There is no medication involved in water fluoridation

D. There is no requirement, or need, for "consent" to be obtained by local officials prior to approving the concentration level of an existing mineral in public water supplies under their jurisdiction. Consent for these officials to do their jobs is conveyed via their election/appointment to office.

E. The "dose" of fluoride from optimally fluoridated water is indeed very strictly controlled. Simply put, water is fluoridated at 0.7 mg/liter (ppm=mg/liter). Thus, for every liter of fluoridated water consumed, the "dose" of fluoride intake is 0.7 mg. The average daily water consumption by an adult is 2-3 liters per day. The US CDC estimates that of the total daily intake, or "dose", of fluoride from all sources including dental products, 75% is from the water.

The US Institute of Medicine has established that the daily upper limit for fluoride intake from all sources, for adults, before adverse effects will occur, short or long term, is 10 mg. As can be noted from a simple math equation, before the daily upper limit of fluoride intake could be attained in association with optimally fluoridated water, water toxicity would be the concern, not fluoride. (8)

The range of safety between the minuscule few parts per million fluoride that are added to existing fluoride levels in your water, is so wide that "dose" is not an issue.

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*9. Bohl: If supporters wanted to be efficient at what they espouse and not risk unnecessary populations like young babies, they would call for an end to forced fluoridation of public water systems and instead start a campaign calling on kids to swallow their toothpaste when brushing their teeth.*

Facts:

Mr. Bohl's callous call for a campaign encouraging children to swallow toothpaste is obviously dangerous, irresponsible, and clear demonstration of how completely uninformed he is on this issue.

## References

- (1) The Association Between Enamel Fluorosis and Dental Caries in U.S. Schoolchildren  
Hiroko Iida and Jayanth V. Kumar  
J Am Dent Assoc 2009;140;855-862
- (2) City of Milwaukee  
Resolution Number 120187  
Version  
SUBSTITUTE 1  
Reference  
<https://milwaukee.legistar.com/LegislationDetail.aspx?ID=1132272&GUID=7C7DF944-B31B-4C65-B678-B1C7A38BD71B&Options=ID%7cText%7c&Search=Bohl+fluoridation+water+works&FullText=1>
- (3) Building a Database of Developmental Neurotoxicants: Evidence from Human and Animal Studies  
W. Mundy, S. Padilla, et al.  
US Environmental Protection Agency
- (4) Ten Cate's Oral Histology, Nanci, Elsevier, 2013, pages 70-94
- (5) Reexamination of Hexafluorosilicate Hydrolysis By F NMR and pH Measurement  
William F. Finney, Erin Wilson, Andrew Callender, Michael D. Morris, and Larry W. Beck  
Environmental Science and Technology/ Vol 40, No. 8, 2006
- (6) Fact Sheet on Fluoridation Substances  
NSF International  
<http://www.nsf.org/newsroom/nsf-fact-sheet-on-fluoridation-chemicals>
- (7) Water Fluoridation and the Environment: Current Perspective in the United States  
Howard F. Pollick, BDS, MPH  
Int J Occup Environ Health 2004;10:343-350
- (8) Dietary Reference Intakes (DRIs): Tolerable Upper Intake Levels, Elements  
Food and Nutrition Board, Institute of Medicine, National Academies



## Effectiveness Studies

### 1) 2015

#### Results

In the 3 areas the proportion of children who received a dental examination varied; 77.5% (n=825) for the fluoridated area, 80.1% (n=781) for the pre-fluoridated area and 55.3% (n=523) for the non-fluoridated area. The mean dmft was 1.40 for the fluoridated area, 2.02 for the pre-fluoridated area and 2.09 for the non-fluoridated area. These differences were statistically significant ( $p<0.01$ ). Differences were also noted in the proportion of children who were caries free, 62.6% fluoridated area, 50.8% for the pre-fluoride area and 48.6% for the non-fluoride location.

#### Conclusion

The children living in the well-established fluoridated area had less dental caries and a higher proportion free from disease when compared with the other two areas which were not fluoridated. Fluoridation demonstrated a clear benefit in terms of better oral health for young children.

The Dental Health of primary school children living in fluoridated, pre-fluoridated and non-fluoridated communities in New South Wales, Australia

Anthony S Blinkhorn, Roy Byun, George Johnson, Pathik Metha, Meredith Kay, and Peter Lewis  
BMC Oral Health 2015, 15:9 doi:10.1186/1472-6831-15-9<http://www.biomedcentral.com/1472-6831/15/9>

### 2) 2000

#### RESULTS:

The prevalence of dental caries was inversely related and the prevalence of fluorosis was directly related to the concentration of fluoride in the drinking water. The mean DMFS in the communities with 0.8 to 1.4 ppm fluoride was 53.9 percent to 62.4 percent lower than that in communities with negligible amounts of fluoride. Multivariate analysis showed that water fluoride level was the strongest factor influencing DMFS scores. The prevalence of fluorosis ranged from 1.7 percent to 15.4 percent, and the increase in fluorosis with increasing fluoride exposure was limited entirely to the milder forms.

-----J Public Health Dent. 2000 Summer;60(3):147-53.

The prevalence of dental caries and fluorosis in Japanese communities with up to 1.4 ppm of naturally occurring fluoride.

Tsutsui A, Yagi M, Horowitz AM.

Department of Preventive Dentistry, Fukuoka Dental College, Fukuoka, Japan.

tutuia@college.fdcnet.ac.jp

<http://www.ncbi.nlm.nih.gov/pubmed/11109211>

### 3) 2000

#### CONCLUSIONS:

Caries levels are lower among children with fluoridated domestic water supplies. Decay levels are much lower in 2002 than they were in 1984 and in the 1960s. The oral health of the less well off is worse than that of the rest of the population. The prevalence of dental fluorosis is higher amongst children and adolescents with fluoridated water supplies. Comparisons with 1984 data show an increase in the prevalence of fluorosis since that time.

---Community Dent Health. 2004 Mar;21(1):37-44.

Dental caries and enamel fluorosis among the fluoridated and non-fluoridated populations in the Republic of Ireland in 2002.

Whelton H, Crowley E, O'Mullane D, Donaldson M, Kelleher V, Cronin M.

Source

Oral Health Services Research Centre, University Dental School and Hospital, Wilton, Cork, Ireland.

#### 4) 1995

<http://www.ncbi.nlm.nih.gov/pubmed/7643331>

#### CONCLUSIONS:

The ingestion of water containing 1 ppm or less fluoride during the time of tooth development may result in dental fluorosis, albeit in its milder forms. However, in these times of numerous products containing fluoride being available, children ingesting water containing 1 ppm fluoride continue to derive caries protection compared to children ingesting water with negligible amounts of fluoride. Thus, the potential for developing a relatively minor unesthetic condition must be weighed against the potential for reducing dental disease.

-----J Public Health Dent. 1995 Spring;55(2):79-84.

Dental fluorosis and caries prevalence in children residing in communities with different levels of fluoride in the water.

Jackson RD, Kelly SA, Katz BP, Hull JR, Stookey GK.

Source

Oral Health Research Institute, Indianapolis, IN 46202-2876, USA.

<http://www.ncbi.nlm.nih.gov/pubmed/15074871>

#### 5) 2004

#### Conclusions:

The results of this study support existing work suggesting water fluoridation together with the use of fluoridated dentifrice provides improved caries prevention over the use of fluoridated dentifrice alone. The social gradient between caries and deprivation appears to be lower in the fluoridated population compared to the non-fluoridated population, particularly when considering caries into dentine, demonstrating a reduction in inequalities of oral health for the most deprived individuals in the population.

----The association between social deprivation and the prevalence and severity of dental caries and fluorosis in populations with and without water fluoridation  
Michael G McGrady, Roger P Ellwood, [...], and Iain A Pretty

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543717/>

6) 2012

**CONCLUSIONS:**

Fewer studies have been published recently. More of these have investigated effect at the multi-community, state or even national level. The dmf/DMF index remains the most widely used measure of effect. % CR were lower in recent studies, and the 'halo' effect was discussed frequently. Nevertheless, reductions were still substantial. Statistical control for confounding factors is now routine, although the effect on per cent reductions tended to be small. Further thought is needed about the purpose of evaluation and whether measures of effect and study design are appropriate for that purpose.

----Community Dent Oral Epidemiol. 2012 Oct;40 Suppl 2:55-64. doi: 10.1111/j.1600-0528.2012.00721.x.  
Effectiveness of water fluoridation in caries prevention.  
Rugg-Gunn AJ, Do L.  
Source  
Newcastle University, UK. [andrew@rugg-gunn.net](mailto:andrew@rugg-gunn.net)

<http://www.ncbi.nlm.nih.gov/pubmed/22998306>

7) 2012

**CONCLUSIONS:**

Data showed a significant decrease in dental caries across the entire country, with an average reduction of 25% occurring every 5 years. General trends indicated that a reduction in DMFT index values occurred over time, that a further reduction in DMFT index values occurred when a municipality fluoridated its water supply, and mean DMFT index values were lower in larger than in smaller municipalities.

----Int Dent J. 2012 Dec;62(6):308-14. doi: 10.1111/j.1875-595x.2012.00124.x.  
Decline in dental caries among 12-year-old children in Brazil, 1980-2005.  
Lauris JR, da Silva Bastos R, de Magalhaes Bastos JR.  
Source  
Department of Paediatric Dentistry, University of São Paulo, Bauru, São Paulo, Brazil.  
[jrlauris@fob.usp.br](mailto:jrlauris@fob.usp.br)

<http://www.ncbi.nlm.nih.gov/pubmed/23252588>

8). 2012

Abstract

The effectiveness of fluoridation has been documented by observational and interventional studies for over 50 years. Data are available from 113 studies in 23 countries. The modal reduction in DMFT values for primary teeth was 40-49% and 50-59% for permanent teeth. The pattern of caries now occurring in fluoride and low-fluoride areas in 15- to 16-year-old children illustrates the impact of water fluoridation on first and second molars.

---Caries Res. 1993;27 Suppl 1:2-8.

Efficacy of preventive agents for dental caries. Systemic fluorides: water fluoridation.

Murray JJ.

Source

Department of Child Dental Health, Dental School, University of Newcastle upon Tyne, UK.

<http://www.ncbi.nlm.nih.gov/pubmed/8500120>

9) 1993

CONCLUSIONS:

The survey provides further evidence of the effectiveness in reducing dental caries experience up to 16 years of age. The extra intricacies involved in using the Percentage Lifetime Exposure method did not provide much more information when compared to the simpler Estimated Fluoridation Status method.

----Community Dent Health. 2012 Dec;29(4):293-6.

Caries status in 16 year-olds with varying exposure to water fluoridation in Ireland.

Mullen J, McGaffin J, Farvardin N, Brightman S, Haire C, Freeman R.

Source

Health Service Executive, Sligo, Republic of Ireland. joej.mullen@hse.ie

<http://www.ncbi.nlm.nih.gov/pubmed/23488212>

10). 2012

CONCLUSIONS:

Children with severe dental caries had statistically significantly lower numbers of lesions if they lived in a fluoridated area. The lower treatment need in such high-risk children has important implications for publicly-funded dental care.

-----Community Dent Health. 2013 Mar;30(1):15-8.

Fluoridation and dental caries severity in young children treated under general anaesthesia: an analysis of treatment records in a 10-year case series.

Kamel MS, Thomson WM, Drummond BK.

Source

Department of Oral Sciences, Sir John Walsh Research Institute, School of Dentistry, The University of Otago, Dunedin, New Zealand.

## Cost Savings Studies

1. For most cities, every \$1 invested in water fluoridation saves \$38 in dental treatment costs.

-----“Cost Savings of Community Water Fluoridation,”  
U.S. Centers for Disease Control and  
Prevention, accessed on March 14, 2011 at  
[http://www.cdc.gov/fluoridation/fact\\_sheets/cost.htm](http://www.cdc.gov/fluoridation/fact_sheets/cost.htm).

2. A Texas study confirmed that the state saved \$24 per child, per year in Medicaid expenditures for children because of the cavities that were prevented by drinking fluoridated water.

----- “Water Fluoridation Costs in Texas: Texas Health Steps (EPSDT-Medicaid),  
Department of Oral Health Website (2000),  
[www.dshs.state.tx.us/dental/pdf/fluoridation.pdf](http://www.dshs.state.tx.us/dental/pdf/fluoridation.pdf),

3. A 2010 study in New York State found that Medicaid enrollees in less fluoridated counties needed 33 percent more fillings, root canals, and extractions than those in counties where fluoridated water was much more prevalent. As a result, the treatment costs per Medicaid recipient were \$23.65 higher for those living in less fluoridated counties.

-----Kumar J.V., Adekugbe O., Melnik T.A., “Geographic Variation in Medicaid Claims for Dental Procedures in New York State: Role of Fluoridation Under Contemporary Conditions,”  
Public Health Reports, (September-October 2010) Vol. 125, No. 5, 647-54.

-----The original figure (\$23.63) was corrected in a subsequent edition of this journal and clarified to be \$23.65. See: “Letters to the Editor,”  
Public Health Reports (November-December 2010), Vol. 125, 788.

4. Researchers estimated that in 2003 Colorado saved nearly \$149 million in unnecessary treatment costs by fluoridating public water supplies—average savings of roughly \$61 per person.

-----O’Connell J.M. et al., “Costs and savings associated with community water fluoridation programs in Colorado,”  
Preventing Chronic Disease (November 2005), accessed on  
March 12, 2011 at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1459459/>.

5. A 1999 study compared Louisiana parishes (counties) that were fluoridated with those that were not. The study found that low-income children in communities without fluoridated water were three times more likely than those in communities with fluoridated water to need dental treatment in a hospital operating room.

-----Water Fluoridation and Costs of Medicaid Treatment for Dental Decay – Louisiana, 1995-1996,”  
Morbidity and Mortality Weekly Report, (U.S. Centers for Disease Control and Prevention),  
September 3, 1999, accessed on March 11, 2011 at  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4834a2.htm>.

6. By reducing the incidence of decay, fluoridation makes it less likely that toothaches or other serious dental problems will drive people to hospital emergency rooms (ERs)—where treatment costs are high. A 2010 survey of hospitals in Washington State found that dental disorders were the leading reason why uninsured patients visited ERs.

-----Washington State Hospital Association, Emergency Room Use (October 2010) 8-12,  
<http://www.wsha.org/files/127/ERreport.pdf>, accessed February 8, 2011.

7. Scientists who testified before Congress in 1995 estimated that national savings from water fluoridation totaled \$3.84 billion each

-----Michael W. Easley, DDS, MP, “Perspectives on the Science Supporting Florida’s Public Health Policy for Community Water Fluoridation,”  
Florida Journal of Environmental Health, Vol. 191, Dec. 2005, accessed on March 16, 2011 at  
<http://www.doh.state.fl.us/family/dental/perspectives.pdf>.

## Email Message From Alderman Bohl to Green Bay Council Members

From: Bohl, James [mailto:jbohl@milwaukee.gov] Sent: Monday, January 23, 2017 12:00 PM  
To: ClerkInquiries  
Subject: FW: Information on Community Water Fluoridation and Infant Warnings from Milwaukee

Greetings Fellow Colleague Council Members from Green Bay,

My name is Jim Bohl and I am a long-standing Alderman on the Milwaukee Common Council. I heard from a friend that there is active discussion in Green Bay City government on the issues of fluoridation of Water, and as a public policy maker who actively involved in this issue for years, I wanted to take a brief moment and share information with you. In the event you were not aware, in 2012 Milwaukee adopted a resolution reducing fluoridation of Milwaukee Water to a rate not to exceed .7 ppm and also opted to direct the Milwaukee Water Works and Health Department to include infant notices because of both the inherent risks that a U.S. EPA (Environmental Protection Agency) recognized neurotoxin presents to low body weight infants who may be on a strict water diet during the first 6 months of age. This is also the primal period for brain growth with an establishing blood/brain barrier and therefore, the most susceptible period for humans for detriment of a toxin. Lastly, newborn infants aren't even beginning the teething process during the first 6 months, and so even if one supported the arguments of water fluoridation proponents, there would be no purpose in consuming an unnecessary foreign additive—let alone one with known detrimental neurological effects. While there is an ongoing heated debate between opponents and advocates over the use of water fluoridation, the Milwaukee Common Council found there to be no questions about the concern to vulnerable infant populations and that is reflected in the unanimously supported resolution that I've attached for you here. In shaping the language for the infant advisory, the city used language directly from the American Academy of Pediatrics and federal agencies.

Along with the resolution attached, you will find a trove of research studies and information on the topic of fluoridation which was weighed by the City of Milwaukee's Council. I myself believe strongly the need for (unsolicited adding of fluoride by a municipal water works) consumed fluoride to be outdated based upon a push largely in the 1950's and 1960's, before tooth paste first began incorporating fluoride for topical use (including spitting out unused tooth paste- which mandated federal government agencies warn us not to swallow) around 1970. The fact that studies show 96-97 percent of water is not consumed (flushing toilets, watering lawns, taking showers, etc.) further shows the financial and unnecessary waste of fluoridation an "added medicine" to the water. Lastly, there is the significant tide of ongoing health research, federal EPA designation of fluoride as a known dangerous toxin and the ethical objection to using public water systems to medicate water without control over the dose and without consent, as added reasons why I believe fluoridation to be unnecessary. If supporters wanted to be efficient at what they espouse and not risk unnecessary populations like young babies, they would call for an end to forced fluoridation of public water systems and instead start a campaign calling on kids to swallow their toothpaste when brushing their teeth. That, however, is neither here nor there.

As I know you will, I encourage you to carefully take in the evidence on both sides with an open mind, being especially mindful of the impact of your policy decisions for those most vulnerable populations. The supporting documentation in this file (attachment below) is massive and I am certain that you will similarly see large quantities of studies pushed at you. If you have any questions of me, I remain open to chatting with any of you.

<https://milwaukee.legistar.com/LegislationDetail.aspx?ID=1132272&GUID=7C7DF944-B31B-4C65-B678-B1C7A38BD71B&Options=ID%7CText%7C&Search=Bohl+fluoridation+water+works&FullText=1>

Wishing you the best in making a sound decision for your community.

Regards,

Jim Bohl, Alderman, District 5  
Milwaukee Common Council  
414-286-3870



**National and International Organizations That Recognize the Public Health Benefits of  
Community Water Fluoridation for Preventing Dental Decay  
Fluoridation Facts Compendium  
American Dental Association**

Acad Dentistry InterNatl  
Acad General Dentistry  
Acad for Sports Dentistry  
Alzheimer's Assoc  
America's Health Insurance Plans  
Am Acad Family Physicians  
Am Acad Nurse Practitioners  
Am Acad Oral and Maxillofacial Pathology  
Am Acad Orthopaedic Surgeons  
Am Acad Pediatrics  
Am Acad Pediatric Dentistry  
Am Acad Periodontology  
Am Acad Physician Assistants  
Am Assoc for Community Dental Programs  
Am Assoc for Dental Research  
Am Assoc for Health Education  
Am Assoc for the Advancement Science  
Am Assoc Endodontists  
Am Assoc Oral and Maxillofacial Surgeons  
Am Assoc Orthodontists  
Am Assoc Public Health Dentistry  
Am Assoc Women Dentists  
Am Cancer Society  
Am College Dentists  
Am College Physicians / Am Society Internal Medicine  
Am College Preventive Medicine  
Am College Prosthodontists  
Am Council on Science and Health  
Am Dental Assistants Assoc  
Am Dental Assoc  
Am Dental Education Assoc  
Am Dental Hygienists' Assoc  
Am Dietetic Assoc  
Am Federation Labor and Congress of Industrial Orgs  
Am Hospital Assoc  
Am Legislative Exchange Council  
Am Medical Assoc  
Am Nurses Assoc  
Am Osteopathic Assoc  
Am Pharmacists Assoc  
Am Public Health Assoc  
Am School Health Assoc

Am Society for Clinical Nutrition  
Am Society for Nutritional Sciences  
Am Student Dental Assoc  
Am Water Works Assoc  
Assoc for Academic Health Centers  
Assoc Am Medical Colleges  
Assoc Clinicians for the Underserved  
Assoc Maternal & Child Health Programs  
Assoc State & Territorial Dental Directors  
Assoc State & Territorial Health Officials  
Assoc State & Territorial Public Health  
Nutrition Directors  
British Fluoridation Society  
Canadian Dental Assoc  
Canadian Dental Hygienists Assoc  
Canadian Medical Assoc  
Canadian Nurses Assoc  
Canadian Paediatric Society  
Canadian Public Health Assoc  
Child Welfare League America  
Children's Dental Health Project  
Consumer Federation America  
Council State & Territorial Epidemiologists  
Delta Dental Plans Assoc  
FDI World Dental Federation  
Federation Am Hospitals  
Hispanic Dental Assoc  
Indian Dental Assoc (USA.)  
Institute of Medicine  
Institute for Science in Medicine  
InterNatl Assoc for Dental Research  
InterNatl Assoc for Orthodontics  
InterNatl College Dentists  
March Dimes Birth Defects Found  
Natl Assoc Community Health Centers  
Natl Assoc County & City Health Officials  
Natl Assoc Dental Assistants  
Natl Assoc Local Boards Health  
Natl Assoc Social Workers  
Natl Confectioners Assoc  
Natl Council Against Health Fraud  
Natl Dental Assistants Assoc  
Natl Dental Assoc  
Natl Dental Hygienists' Assoc  
Found Dentistry for the Handicapped  
Natl Head Start Assoc  
Natl Health Law Program  
Natl Healthy Mothers, Healthy Babies Coalition  
Oral Health America

Robert Wood Johnson Found  
Society for Public Health Education  
Society Am Indian Dentists  
Special Care Dentistry  
Acad Dentistry for Persons with Disabilities  
Am Assoc Hospital Dentists  
Am Society for Geriatric Dentistry  
The Children's Health Fund  
The Dental Health Found (of California)  
US Department Defense  
US Department Veterans Affairs  
US Public Health Service  
Health Resources & Services Administration (HRSA)  
Centers for Disease Control & Prevention (CDC)  
Natl Institute Dental & Craniofacial Research (NIDCR)  
World Federation Orthodontists  
World Health Org