Benefits?
Cavity Decline in the Industrial World

Tooth Decay Trends in Fluoridated and Non-Fluoridated Countries
WHO data on DMFT in 12 year olds*


** No water or salt fluoridation.
Why Have Cavities Declined?

- Refrigerators
- Antibiotics
- Better Hygiene
- Tooth Brushing
- Vitamins
- Dentist Visits
- Better Diets
- Fluoride Toothpaste and Treatments
1986-87 NIDR Study of 39,201 Children

Figure 1
Tooth decay in fluoridated (F), partially fluoridated (PF), and non-fluoridated (NF) areas: Permanent Teeth.

Imaginary 50% cavity reduction
The concentration of fluoride in **ductal saliva**, as it is secreted from salivary glands, is low --- approximately 0.016 parts per million (ppm) in areas where drinking water is fluoridated …(Oiveby et al, 1990). **This concentration of fluoride is not likely to affect cariogenic activity.**

- in *MMWR, CDC. August 17, 2001 / 50(RR14);1-42*

…the protective shield fluoride forms on teeth is up to **100 times thinner than previously believed**……. The scientists question whether a layer so thin, which is **quickly worn away by ordinary chewing**, really can shield teeth from decay””

- in 2011 ACS article per 2010 Langmuir study by Muller et. al.
## Fluoridation Cessation

<table>
<thead>
<tr>
<th>Location</th>
<th>Year</th>
<th>Change in Dental Caries Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham, NC</td>
<td>2000</td>
<td>“…little effect on caries”</td>
</tr>
<tr>
<td>Kuopio, Finland</td>
<td>1992</td>
<td>“…caries declined”</td>
</tr>
<tr>
<td>LaSalud, Cuba</td>
<td>1990</td>
<td>No Change in some groups ‘Significant Decline’ in others</td>
</tr>
<tr>
<td>Chemnitz, East Germany</td>
<td>2000</td>
<td>Caries….Significantly Decreased</td>
</tr>
<tr>
<td>BC, Canada, Comparison of 2 fluoridated towns, one of</td>
<td>2001</td>
<td>Fluoridated: No Change</td>
</tr>
<tr>
<td>which stopped CWF</td>
<td></td>
<td>Stoppage: Caries Declined</td>
</tr>
<tr>
<td>Tiel (fluoride) and Colemborg (no flouride), Netherlands</td>
<td>1973</td>
<td>Continued decline in caries after Tiel Stoppage</td>
</tr>
</tbody>
</table>
# State Statistics from CDC (2008)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Hawaii</th>
<th>NJ</th>
<th>VT</th>
<th>MA</th>
<th>NY</th>
<th>KY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual visit</strong></td>
<td>73%</td>
<td>74%</td>
<td>74%</td>
<td>78%</td>
<td>73%</td>
<td>64%</td>
</tr>
<tr>
<td><strong>Teeth cleaning</strong></td>
<td>73%</td>
<td>75%</td>
<td>76%</td>
<td>79%</td>
<td>73%</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Complete tooth loss</strong></td>
<td>10%</td>
<td>17%</td>
<td>20%</td>
<td>18%</td>
<td>17%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Lost 6 or more teeth</strong></td>
<td>31%</td>
<td>43%</td>
<td>44%</td>
<td>44%</td>
<td>44%</td>
<td>52%</td>
</tr>
<tr>
<td><strong>Fluoridation status by pop.</strong></td>
<td>8%</td>
<td>23%</td>
<td>59%</td>
<td>59%</td>
<td>73%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>One or more sealants</strong></td>
<td>na</td>
<td>na</td>
<td>66%</td>
<td>46%</td>
<td>27%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>3rd graders with any cavity experience</strong></td>
<td>na</td>
<td>na</td>
<td>45%</td>
<td>41%</td>
<td>54%</td>
<td>60%</td>
</tr>
<tr>
<td><strong>3rd graders with untreated</strong></td>
<td>na</td>
<td>na</td>
<td>16%</td>
<td>17%</td>
<td>33%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Kentucky with 99.8% fluoridation has the worst state dental record. Hawaii & NJ are the two least fluoridated states. Both have a better dental experience than Massachusetts.

Healthy diet, dental care & sealants prevent decay, not fluoridation.
Risks
Source Studies Which Define the Risks

Overview:

2014 SWJ: http://www.hindawi.com/journals/tswj/2014/293019/
http://www.gradschool.usciences.edu/faculty/kaufman-jol
2013 Sauerheber: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3690253/


NRC:
Feltman study: see pdf

Allergic Symptoms:
Symptoms: http://fluorideinformationaustralia.files.wordpress.com/2013/01/flier_waldbott_symptoms_ftgd.pdf
Article: http://www.fluoridation.com/waldbot.htm

Delayed Eruption:
Sutton Chapter 10: http://www.fluoridation.com/sutton.htm

Thyroid, etc.: http://www.newmediaexplorer.org/chris/Clinch_2010_Delayed_Eruption-Annotated_Bibliography.pdf

Cessation studies:

Genetic susceptibilities
Black Americans: http://www.thenewamerican.com/usnews/health-care/item/19317-feds-blacks-suffer-most-from-fluoride-fluoridate-anyway#

MA Law:
Fluoridation: https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section8c
Water Quality: https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111/Section160

Leading Opponents:

NCBI abstracts:
2007 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2001050/
2004 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2001050/

1999 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2001050/
2004 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448331/
Sodium Fluoride is a Very Toxic Chemical

Where our Sodium Fluoride Comes From

Aluminum, fertilizer, steel and uranium refinery waste gases are captured by wet scrubbers and converted to Sodium Fluoride

Sodium Fluoride: more toxic than lead, less toxic than arsenic

Relative Toxicity

Dental Fluorosis

Fluoride is bio-accumulative. 50% of ingested fluoride remains in our bodies, mostly in teeth and bones, but also in soft tissues. Fluorosis results.

41% of US children ages 12-15 have dental fluorosis - CDC