Fluoride In Foods & Beverages
Intended goal of fluoridation: 1 mg fluoride/day in total from all sources (food and otherwise)

Estimates of Actual Intake of fluoride:

- 3-5mg fluoride/day

NRC Canada 1977, ATSDR 1993, NRC 2006
These 3 items Exceed Fluoridation Goal of 1.0 mg per day

- a bowl of Wheaties,
- a glass of milk,
- a Coke or orange juice
- delivers twice the fluoride salesman’s daily goal of fluoridation
## A Fluoride Breakfast

<table>
<thead>
<tr>
<th>Item</th>
<th>Fluoride mg/L</th>
<th>Dose mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 oz Coke</td>
<td>.98</td>
<td>.353</td>
</tr>
<tr>
<td>8 oz 2% Milk</td>
<td>.72</td>
<td>.173</td>
</tr>
<tr>
<td>Wheaties</td>
<td>10</td>
<td>1.80</td>
</tr>
<tr>
<td>Total Dose</td>
<td></td>
<td>2.326</td>
</tr>
<tr>
<td>Exceeds fluoridation goal</td>
<td>1.0</td>
<td>233%</td>
</tr>
</tbody>
</table>
Fluoride Concentration, by specific independent analysis (Individual samples will vary)

- Coca Cola Classic..........................0.98 ppm
- Diet Coke ......................................1.12 ppm
- Sprite..............................................0.72 ppm
- Lucerne 2% Milk ............................0.72 ppm
- Minute Maid orange juice .......... 0.98 ppm
- Gerber Graduate Berry Juice ....... 3.0 ppm
- Gerber White Grape Juice .......... 6.8 ppm
- Welch’s White Grape Juice (concentrate) .........................1.8 ppm
- Hawaiian Punch..............................0.85 ppm
- Fruit Loops .....................................2.1 ppm
- General Mill’s Wheaties...............10.1 ppm
- Kellogg’s Shredded Wheat .......... 9.4 ppm
- Post’s Grape Nuts cereal ............ 6.4 ppm
Maximum allowable pesticide residue levels

Cryolite (sodium aluminum fluoride)

- Cabbage........................................ 45.00 ppm
- Citrus fruits .................................. 95.00 ppm
- Collards........................................ 35.00 ppm
- Eggplant........................................ 30.00 ppm
- Lettuce, head.............................. 180.00 ppm
- Lettuce, leaf ................................. 40.00 ppm
- Peaches......................................... 10.00 ppm
- Potatoes, internal ....................... 2.00 ppm
- Potatoes, wastes and skin .......... 22.00 ppm
- Raisins.......................................... 55.00 ppm
- Tomatoes ..................................... 30.00 ppm
- Tomato paste.................................. 45.00 ppm
Fluoride And Tea

- Tea is very high in fluoride because tea leaves seem to accumulate more fluoride (from pollution of soil and air) than any other edible plant.

- "Another important source of fluoride ingestion is tea...[T]he fluoride content of tea has been found to range from 0.1 to 4.2 ppm fluoride, with an average of about 3 ppm." Levy SM, Guha-Chowdhury N. (1999). Total fluoride intake and implications for dietary fluoride supplementation. Journal of Public Health Dentistry 59: 211-23.
Food and Beverage Sources of Fluoride Exposure


- Dole Pineapple juice .................... 0.78 ppm
- Lucerne 2% milk ........................ 0.72
- Snapple ......................................... 0.29
- Coka Cola Classic ....................... 0.82
- Hansens Soda ............................... 0.45
- Minute Maid juice ....................... 1.20
- Capri Sun juice .......................... 0.37
- Gerber Strawberry juice ................. 1.80
- Horizon milk (organic ) ............... 0.22
- Sunny Delight ............................. 0.31
- Pepsi ............................................. 0.37
- Knudson Recharge ....................... 0.28
- Gerber White Grape ....................... 3.50
Food and Beverage Sources of Fluoride Exposure


- Gerber Graduates Berry Punch ................ 3.00 ppm
- Coca Cola Classic .............................. 0.98
- Minute Maid Premium Orange juice ........ 0.98
- Kellogs Fruit Loops cereal ..................... 2.1 mg/kilogram


- Welch.s White Grape Juice (conc.) ..........1.80 ppm
- Coca Cola Classic .............................. 0.82
Food and Beverage Sources of Fluoride Exposure

- Gerber White Grape Juice .........................3.50 ppm
- Gatorade Punch Concentrate ................... 0.44
- Diet Coke ................................................. 1.12
- Lipton Ice Tea ...........................................0.56
- Sprite ........................................................0.73
- Hawaiian Punch ........................................0.85
- Publix Orange Juice .................................0.79

- Post.s Grape Nuts cereal ....................... 6.40 ppm
- Kellogg.s Shredded Wheat ......................9.40
- General Mill.s Wheaties .......................... 10.10
Food and Beverage Sources of Fluoride Exposure

Given that increasing numbers of people are consuming beverages instead of water, fluoride supplementation should not be based solely upon the concentration of the drinking water, but should also consider the amount of different beverages consumed and their fluoride content.

- Authors analyzed the fluoride concentration of 238 commercially available infant foods.

- Fluoride concentrations ranged from 0.01 to 8.38 micrograms of fluoride per gram, (ppm)

- Highest fluoride concentrations found in infant foods containing chicken.

- 43 ready-to-drink fruit juices were examined for fluoride ion concentration.
- Fluoride levels of the juices ranged from 0.15 to 6.80 (Gerber White Grape juice).
- 42% of the samples had more than 1 ppm of fluoride.

- Authors analyzed 532 juices and juice drinks for fluoride.
- Fluoride ion concentration ranged from 0.02 to 2.80 parts per million.
- Children’s ingestion of fluoride from juices and juice-flavored drinks can be substantial and a factor in the development of fluorosis.

- Authors examined the fluoride concentrations of 332 soft drinks.

- The fluoride levels of the products ranged from 0.02 to 1.28 ppm, with a mean level of 0.72.

- Fluoride levels exceeded 0.60 ppm for 71 percent of the products.

- The water-extractable F content of five brands of California raisins varied from 0.83 to 5.20 ppm (mean 2.71 ppm).

- Elevated F levels in these wines and raisins appear to result from pesticide use of cryolite (Na₃AlF₆) in the vineyards.