Dental Fluorosis and Fluoride in Consumable Products

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Dental Fluorosis

Normal Teeth

Teeth Affected by Dental Fluorosis
Varying Severity of Dental Fluorosis

- Normal
- Questionable
- Very mild
- Mild
- Moderate
- Severe
Types of Treatment

Porcelain Laminate Veneers
Types of Treatment

Enamel Microabrasion
Types of Treatment

Direct Composite Veneers
Types of Treatment

Dental Crowns
Types of Treatment

Dental Implants
Areas of High Fluoride Content

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Groundwater Fluoride Concentration Above 1.5 ppm
Food with Higher Levels of Fluoride
Water with Fluoride

GOT FLUORIDE?
ORAL ANSWERS EXAMINES 13 BOTTLED WATERS

Fluoride amounts in PPM and rounded to nearest one hundredth. Two numbers represent a range of fluoride concentrations.

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Percent that a State Fluoridates

Map showing fluoride levels in different states with color coding for percentage of states that fluoridate: 0-24%, 25-49%, 50-74%, 75-100%, Data Not Available.
Dental Products
Types of Absorption

**Topical**

**Systematic**

**Step 1**
- Ingestion of food/beverage

**Step 2**
- Absorption in GI tract
- Excess excreted

**Step 3**
- 50% goes to teeth and bones
- 50% is excreted
4 Major Sources of Fluoride
Opposition Groups

JBS
The John Birch Society

Fluoride Action Network
Get the real facts on fluoride.
Nazi/Communist Theory

FLUORIDE

Nazi Germany used water fluoridation in concentration camps to sterilise the humans and force them into calm submission.

- Joseph Berkin, "The Crime and Punishment of I.G. Farben"
Missing Information in Decline of Caries

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


** No water or salt fluoridation.
### Poisoning

<table>
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<th>Acute</th>
<th>Chronic</th>
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#### Symptoms

- **1st set**: Severe nausea, bloody vomiting, diarrhea
- **2nd set**: Pallor, weakness, shallow breathing, weak heart sounds, clammy skin, cyanosis, dilated pupils
- **3rd set**: Muscle paralysis, carpopedal spasm, and spams in the extremities
Other Theories

Criticalized the original studies by erroneously asserting that the results reported by the authors were a result of changes in the age, race and sex composition of the sample. The U.S. PHS made mathematical errors and did not include 90% of the data. The U.S. PHS method of analysis when applied to the database, confirmed that 10,000 excess cancer deaths yearly were linked to fluoridation of water supplies. This evidence has been tested most recently in the Pennsylvania Courts and found scientifically sound after careful scrutiny.

There were three different short term in vitro tests performed on fluoride and all these tests proved fluoride to be mutagenic. An Ames test was performed and reported to be negative. Bruce Ames, in a letter to Arthur Upton introduced in the Congressional Record, mentioned the results of a publication of a mutagenic finding.

In this case, the mutagenicity of fluoride supports the conclusion that fluoride is a probable human carcinogen.

was always upheld. He first published the work that identified hepatocellular carcinoma as a pathologic entity. The report changed Battelle's board certified veterinary pathologists diagnoses from hepatocellular carcinoma to hepatoblastoma and finally to hepatocarcinoma. Dr. Reuber reviewed the pathology slides and stated that these lesions are indeed hepatocellular carcinomas. Because Dr.

Cost of fluoridation approx $0.50 per person per year

Cost of a single filling $130

Only 43% of children brush twice daily with the recommended strength fluoride toothpaste.
Conclusion

- To help reduce the prevalence of dental fluorosis
  - More regulations put into place on various consumable items that may contain fluoride
  - More awareness of the amounts of fluoride in various products
  - Teaching the risks and benefits of fluoridation.
Sources


- Images are from Google Images