

Dental Fluorosis - a dental disaster

When fluoridation first began, the proponents promised the American public that the only and worst risk from the program was that something less than 10% of children might have a few faint white spots on their 'cavity resistant' teeth which many would find adds an attractive sparkle.

Also of note, the researchers in the early fluoridation trials treated African American children differently from the outset, writing that it was common knowledge that Negroes have stronger teeth more resistant to decay.

It didn't take long for those involved to realize that something was very wrong, but their reaction per 1962 memo that noted high rates of fluorosis that was doubled in the African American children emphasized protecting the fluoridation program.

As both the numbers of Americans and percentage of the population drinking fluoridated water swelled, dental fluorosis also grew, disproportionately and with worse severity in Black and Latino populations.

Dental fluorosis is a defect in the tooth due to cell death during the formative stages. Those with dental fluorosis have higher bone fractures as well as higher rates of learning disabilities. Dental fluorosis is the visible evidence of similar defects due to cytotoxic effects that occur in bones and brains during critical periods of development, i.e. prenatal, infancy and early childhood.

Dental fluorosis is also a leading indicator of **higher dental costs** as these unattractive and brittle teeth will require costly veneers and crowns in young adulthood. Per 2011-2012 NHANES figures released in 2017, one in five (23%) American teens have brown mottling and perhaps pitting on at least two fluorosed teeth due to childhood exposure.

RESOURCES

- 1962 Memo: http://fluoridealert.org/wp-content/uploads/1962_01_10_Blacks_Fluorosis.pdf
 - "Negros in Grand Rapids had twice as much fluorosis - indices 0.15 v. 0.35"
- 2005 CDC MMWR: <https://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm>
 - "Prevalence of enamel fluorosis has increased in cohorts born since 1980."
- 2010 CDC Report: <https://www.cdc.gov/nchs/data/databriefs/db53.pdf>
 - "(All levels of) dental fluorosis were higher among adolescents aged 12–15 in 1999–2004 than in 1986–1987."
- 2015 "Agua Potable o Veneno" (part 2 of 3): <https://www.youtube.com/watch?v=RGswvGZPL-M>
 - Ethnic Breakdown: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm#tab23>
- 2017 Dental fluorosis is result of apoptosis: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5770627/>
- 2018 Increase: <http://jdh.adha.org/content/92/1/23>
 - **Conclusion:** "There was a difference of 31.6% in dental fluorosis prevalence between 2012-2011 when compared to data from 2002-2001 in adolescents aged 16 and 17 years. The continued increase in fluorosis rates in the U.S. indicates that additional measures need to be implemented to reduce its prevalence."

Fluoride causes



Dental fluorosis among American adolescents

1945: ≤ 3%

1986-1987: 22% with 1% moderate-severe

1999-2004: 41% with 4% moderate-severe

→ 2011-2012: 61% with 23% moderate-severe