Response To Letter Of Andrew Young

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A letter signed by Dr. Andrew Young, civil rights leader and former US Ambassador to the United Nations, is currently being promoted by antifluoride groups. This letter contains the typical out-of-context information, half-truths, and misrepresentations characteristic of fluoridation opponents targeting emotional responses in lieu of facts and evidence. It is sad to see that a respected individual like Dr. Young has been misled by fluoridation opponents into lending his name to a junk science and conspiracy-focused position. This is not only detrimental to the health and well-being of those whose lives leaders such as he have worked tirelessly to improve, but to all of society, as well.

The first point of the letter claims that fluoridation has not been properly researched. In reality, the public health initiative of water fluoridation has been the most tested and investigated such initiative in history. The scientific literature on fluoridation is voluminous. Even in the face of such scrutiny, in the entire 71 year history of fluoridation, with hundreds of millions having chronically ingested optimally fluoridated water, there have been no proven adverse health effects. There can be no more convincing demonstration of the safety of this initiative.

The next point claims that the description of dental fluorosis has gone from "pathologic" to "inconsequential" implying a conspiratorial reason for so doing. In actuality, the characterization of dental fluorosis has not changed. This effect of the teeth has several levels. As determined by the 2006 NRC Committee on Fluoride in Drinking Water, very mild, mild, and moderate levels are considered cosmetic effects, while the severe level is the only form considered to be an adverse health effect. Most importantly, severe dental fluorosis does not occur in communities with water fluoride content of 2.0 mg/liter, or less. In failing to distinguish between the levels of this effect, the letter has taken the differing descriptions, combined all levels into one, and claimed the descriptions to be changing positions on dental fluorosis. (1)(8)

Levels of dental fluorosis (images courtesy of US CDC):

![Dental Fluorosis Levels](http://www.cdc.gov/fluoridation/faqs/dental_fluorosis/index.htm)

The next point implies that while dentists have "admitted" the effects of fluoride to be primarily topical, they nonetheless keep recommending swallowing fluoride because they "don't want to be embarrassed or sued". The fact is that the effects of fluoride have been well documented to
be both topical and systemic. This has been clearly demonstrated by Iida/Kumar 2013, Cho 2014, Buzalaf 2013, Singh 2004, and the CDC 2001. (2)(3)(4)(5)(6)

The letter then claims that the amount of fluoride in saliva resultant of fluoridation, is insufficient to have any benefit. This claim is a perfect example of misuse of out-of-context information:

From a 2001 CDC report:
"Saliva is a major carrier of topical fluoride. 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 and 0.006 ppm in nonfluoridated areas. This concentration of fluoride is not likely to affect cariogenic activity.".

However, the rest of that same paragraph, not taken into consideration in the letter, goes on to state:

"However, drinking fluoridated water, brushing with fluoride toothpaste, or using other fluoride dental products can raise the concentration of fluoride in saliva present in the mouth 100- to 1,000-fold. The concentration returns to previous levels within 1--2 hours but, during this time, saliva serves as an important source of fluoride for concentration in plaque and for tooth remineralization." (3)

Finally, the claim is made that minorities are disproportionately harmed by "fluorides causing all forms of dental fluorosis teeth disfigurement", and implies that diabetic and kidney patients in the African American communities are being misinformed.

Dental fluorosis is not "disfigurement". It is simply a cosmetic effect on the enamel of teeth from systemic fluoride during tooth development. The milder forms are associated with greater resistance of the teeth to dental decay, and have no consequence other than barely detectable faint white streaks on these teeth. While severe dental fluorosis form does cause pitting and discoloration of the teeth, this level is rare in the United States, and does not occur in communities with a water fluoride content of 2.0 mg/liter or lower. That threshold is three times greater than the level at which water is fluoridated. (1)(2)(8)

There is no credible, peer-reviewed scientific evidence that fluoridated water has any association with diabetes, or has any adverse effect on the kidneys. There is, on the other hand, clear such evidence that demonstrates no negative health consequences from optimally fluoridated water in patients with even late stage kidney disorders. (7)

Dr. Young's motivations are undoubtedly in keeping with his lifelong battle to improve the lives of minorities. However, according credence to misguided fluoridation opponents, and allowing his name to be associated with their misinformation.....serves the good of no one.

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