

Don't be Swindled by Those Opposed to Fluoride

submitted by
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Do community members send you fluoride misinformation that they have retrieved from the internet? Have you ever Googled “Water Fluoridation” on the internet and noticed that the majority of the web links are against water fluoridation? After reading them, do you question the safety and effectiveness of water fluoridation?

The anti-fluoridationists (aka: antis), with no scientific ground to stand on, have become very sophisticated with their tactics. In today's high tech world they are now even able to post video clips on YouTube to get misinformation out to the public.

Take the claim, “There should be an end to water fluoridation, because fluoride is damaging to the teeth and bones.” The first thing you would have to recognize is that the claim states, “fluoride” not “fluoridation” is damaging to teeth and bones.” Again the anti is trying to confuse the reader or listeners making them think various studies regarding very high levels of fluoride are related to water fluoridation at optimal levels (0.7 to 1.2 mg/L). They convince the public to believe their claims by cherry-picking evidence that supports their contentions and ignoring evidence that contradicts it.

We could not possibly address all the claims made by the antis in this article, but here are a few of their most common claims and the tactics they use.

Those Opposed Cite Weak Scientific Studies:

The safety and effectiveness of community water fluoridation at optimal levels is supported by 60 years of strong evidenced based studies, including multiple systematic reviews. Systematic reviews have the strongest evidence because the rules and guidelines are set in advance. They look at the evidence from multiple studies, not just one study. The anti-fluoridationists point to one specific study all the time and will state for example, “this study proves fluoridation causes cancer.” Instead of using authoritative systematic reviews that are supported by almost all credible scientific organizations, those opposed to water fluoridation ask to change a public health practice based on information provided on non-scientific websites, newsletters and YouTube. Those who have organized these efforts have never published a single compelling study in a peer reviewed scientific journal. They often cite weak studies that are conducted

in other countries where natural fluoride levels occur at much higher levels. Those opposed to water fluoridation frequently are not trained and do not have a background in epidemiology, public health and health sciences that would allow them to adequately assess the strengths and weaknesses of epidemiological or laboratory studies.

Those opposed to fluoridation instilled fear in a fluoridating community. The proponents could not possibly address all the negative claims made in the time they were given to respond in a public meeting. Those opposed to fluoridation are notorious on twisting the science. Sometimes it is intentional, and sometimes it is just plain due to science illiteracy. The specific studies they cite are usually not peer reviewed and are deeply flawed. For example studies from China where a small sample size of children living in a high naturally occurring fluoride area have lower IQs. Not only can these types of fluoride exposures not be compared to water fluoridation in the US, but these studies never account for other factors such that these areas were highly polluted. The only peer reviewed published study on fluoride and IQ by Wang et al. measured IQ in children in high arsenic areas, moderate arsenic areas, high fluoride areas, and in a control area [1]. The authors concluded that children in the high fluoride areas (10mg/L) had a 5 point decrease in IQ compared to the control group. Unless you are well versed in reading research and trained in epidemiology you may miss the following important points: out of 253 children in the high fluoride group, 142 never had their arsenic levels tested (arsenic is a known neurotoxin), the control group with the normal IQ level drank water that naturally contained fluoride levels at 0.5mg/L, and the study never accounted whether or not these children lived in polluted or industrial areas. Now you would see this article headlined on the National Anti Fluoridation Web site as “Study links fluoride to lower IQ.” By association, a visitor to this web site may think this study relates to water fluoridation. It would be very time consuming for anyone to research even just one claim against water fluoridation.

Claim Fluoride at Optimal Levels is Toxic:

Let's remember what optimal levels of fluoride in drinking water are (0.7 to 1.2mg/L). Fluoride opponents are fond of stating that the bags containing the sodium

fluoride used to fluoridate the water are labeled “TOXIC.” The bags contain pure sodium fluoride and this substance, if ingested in large quantities (such as dipping your spoon into the bag and eating it), is indeed toxic. However, simply because something is toxic under certain circumstances (e.g. high dose) does not make it toxic under all circumstances, and certain “toxic substances” are actually necessary for life. Iodine (which is in the same periodic table group as fluorine) is also toxic when ingested in large quantities. However if iodine were not added to table salt, the incidence of thyroid disease (goiter) would increase because this element is necessary for health. Oxygen administered at 100% under pressure is also toxic, which is why divers do not use pure oxygen. Even pure water can be toxic if one ingests too much of it [2].

They Distort Scientific Evidence:

Those opposed to water fluoridation continue to use the 2006 National Research Council (NRC) report **FLUORIDE IN DRINKING WATER: A SCIENTIFIC REVIEW OF EPA’S STANDARDS** to raise concerns and mislead the public. The purpose of this report was to evaluate the current MCLG regarding fluoride that occurs naturally in water at 4 mg/L. Only 200,000 people in the US have naturally occurring fluoride concentrations at or exceeding 4 mg/L. Those natural fluoride levels rarely exist in New York State and certainly not in public water systems. In New York State many water systems test at 0.2mg/L naturally occurring fluoride and add fluoride at optimal levels (0.7 to 1.2 mg/L). Some states, such as Texas, Virginia, and South Carolina have naturally occurring levels up to 10 mg/L in some areas (See Table 1). In these community water systems they may even have to defluoridate.

TABLE: 1

States with high levels of fluoride occurring naturally:

Colorado	11.2 mg/L
Oklahoma	12.0 mg/L
New Mexico	13.0 mg/L
Idaho	15.9 mg/L
Virginia	6.3 mg/L
Texas	8.8 mg/L
S. Carolina	5.9 mg/L

The NRC of the National Academy of Sciences (NAS) has stated clearly that “Because, fluoride is well known for its use in the prevention of dental caries, it is important to make the distinction here that EPA’s drinking-water guidelines are not recommendations about

adding fluoride to drinking water to protect the public from dental caries.” The committee did not evaluate the risks or benefits of the lower fluoride concentrations (0.7 to 1.2 mg/L) used in water fluoridation. [3].

Water fluoridation is the precise adjustment of natural fluoride levels to an optimal level (0.7 to 1.2 mg/L) for the prevention of tooth decay. Recently the National Academy of Sciences (one of the most prestigious scientific organizations in the U.S.), which is the umbrella organization that includes the National Research Council, clarified that point in a report titled **Drinking Water, Understanding the Science and Policy behind a Critical Resource** stated, “In places where fluoride is artificially added to water, the fluoride concentration is kept at a safe level between 0.7 and 1.2 mg/L” [4].

If those opposed to water fluoridation are so concerned about fluoride, why are they not in these communities with higher levels of fluoride that occurs naturally (such as Colorado, Texas, and South Carolina) and asking them to take the fluoride out?

They claim the FDA has the authority to regulate municipal drinking water:

Fluoride opponents would like you to believe that the Food and Drug Administration (FDA) can regulate what is put into municipal drinking water. They provide a snippet of congressional testimony which says that when fluoride is used to treat or prevent disease, it is considered to be a drug and thus is regulated by the FDA. As with many other assertions made by the antis, the snippet is a half-truth taken completely out of context. It refers to the FDA’s mandate to regulate fluoride-containing toothpastes, supplements, mouthrinses and other products (such as the paste used to polish your teeth at the dentist’s office). And, in accordance with that authority, the FDA has approved a large variety and number of such products.

However, the FDA does not have jurisdiction over municipal drinking water. The Safe Drinking Water Act gave that responsibility to the Environmental Protection Agency (EPA). The FDA’s own website says as much: “The regulation of water is divided between the Environmental Protection Agency and FDA. EPA has the responsibility for developing national standards for drinking water from municipal water supplies. FDA regulates the labeling and safety of bottled water.”

Retrieved from: http://www.fluorideinfo.org/fluoride_claims-vs-facts.html

Claim the American Medical Association does not endorse fluoridation:

Those opposed to water fluoridation suggest that the American Medical Association does not support community water fluoridation. However, here's what the AMA itself has to say on the topic: "The AMA urges state health departments to consider the value of requiring statewide fluoridation (preferably a comprehensive program of fluoridation of all public water supplies, where these are fluoride deficient), and to initiate such action as deemed appropriate."

Check it out for yourself on the AMA website:

<http://www.ama-assn.org/ama/pub/physician-resources/clinical-practice-improvement/clinical-quality/accreditation-collaboration/ada-council.shtml>

Claim Fluoridation is Ineffective:

Those opposed to fluoridation will claim that fluoridation saves only 0.6 cavities per child per year, as if that is a trivial amount. They fail to note that this is an average in 7 to 17 year old children. This difference is greater in older children because they have more teeth. Even this small saving could reduce six million cavities per year. According to the Centers for Disease Control and Prevention (2001), "Recommendations for using fluoride to prevent and control dental caries in the United States," fluoridation costs an average of about \$0.92 per person-year [5].

Retrieved from: http://www.cdc.gov/fluoridation/fact_sheets/fl_caries.htm

Claim Fluoride is banned in Europe:

Antifluoridationists are fond of stating that fluoride has been banned in Europe. What's the truth?

After the Second World War, there was much destruction of the water systems in Europe and the water was unsafe to drink. As a result, in order to get the fluoride to the people to prevent cavities they added fluoride to the salt. Today, because their public water systems are both older and of smaller scale than those in the U.S., many European countries (e.g. Germany, France, Spain and Switzerland) find it more cost-effective to provide the cavity-fighting benefits of fluoridation by adding it to table salt (much the way iodine is added to salt in the U.S. to prevent goiter).

Fluoride opponents point to the relatively recent decision of the Swiss Canton of Basle to eliminate fluoridation of drinking water as proof that fluoride has been recognized as harmful, but as usual they don't tell the whole story. What are the facts behind the decision?

In Switzerland both water and salt fluoridation was in use in different regions, with water fluoridation being used in Basle. Fluoridated salt was marked "Not to be delivered to Basle" but in 1995 Swiss Federal law was changed so that the cantons could no longer regulate the salt trade. As a result, in 2000 fluoridated salt began to be sold in Basle. This caused many people to ingest both fluoridated water and fluoridated salt, so the Canton voted to cease water fluoridation in 2003. Since its introduction in 1962 the water fluoridation scheme in Basle had been challenged on the political scene by antifluoridationists. However, the allegations of harm were all regarded as unfounded by the Cantonal Parliament, and this opinion was upheld in the official document leading to the cessation of water fluoridation. The document also restated that the Swiss Federal Court had decided that water fluoridation was constitutional (Reference: J. MEYER and P. Wiehl, Schweiz Monatsschr. Zahnmed 2003). To add, no court in the United States has ever ruled water fluoridation to be unconstitutional. Of course the antifluoridationists conveniently leave out these facts when they tell the story of Basle.

Over 30 countries use water fluoridation today. For more world fluoridation facts, go to the British Fluoridation Society website at: http://www.bfsweb.org/facts/dental_benefits/facts.htm

We have over 60 years of credible scientific studies that show there is no harm caused by water fluoridation at optimal levels. Fluoridation of drinking water is considered by the Centers for Disease Control and Prevention (CDC) as one of ten great public health achievements of the 20th century. Fluoridation of community water supplies benefits everyone in the community (children, adults, and senior citizens). Ever since its inception 60 years ago, communities that fluoridate have been challenged of this public health practice by those opposed to water fluoridation. We hope this information has helped you to not be misled.

We encourage you to check out the Fluoride Information Network website at: http://www.fluorideinfo.org/fluoride_claims-vs-facts.html

Other helpful web links:

Quackwatch.org is a nonprofit corporation whose purpose is to combat health-related frauds, myths, fads, and fallacies. They characterize the "information" provided by fluoride opponents as propaganda which makes heavy use of "the big lie" and half-truths to deceive the unwary.