

Fluoride Usage

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By [Paul Connett, PhD](#)

Many of you may have probably heard the term "fuzzy math" before. It is a term used to describe a somewhat controversial method of teaching math where the answers do not have to be EXACTLY right.

But at the very least, they are supposed to be close. Unfortunately, many of those promoting the practice of water fluoridation would fail to meet even these basic "fuzzy math" guidelines, with methods better described as "hairy" than "fuzzy".

And "fuzzy math" is supposed to be a temporary teaching tool for young children, NOT a permanent way of doing business or a method used to change the data to whatever suits your agenda.

While I was in New Zealand recently, I was sent some literature, better described as a propaganda package, from the Australian Dental Association entitled "Fluoridation: Nature Thought of it First".

My response to that title was that I completely agree. "Nature" did indeed think of it first, and wisely spotted that fluoride was very toxic. That is why "Nature" limits the level of fluoride in mother's milk to 0.01 ppm (parts per million), which is 100 times less than most of the levels at which water is fluoridated in the few "not so bright" countries which continue this foolish practice.

Some of these "not so bright" countries have produced some remarkably clever people: Shakespeare, Newton, Ernest Rutherford and Mark Twain to name a few. However, those in government in these countries and those who write the propaganda for their Dental Associations, seem to have a great deal of trouble performing simple arithmetic.

Measuring Dental Caries (Cavities)

For example, the first paper cited in the Australian Dental Association's package promoting fluoridation is an article entitled "Water Fluoridation in Australia" (Community Dental Health (1996) 13, Supplement 2, 27-37).

In the abstract of this article, the authors tell us that "Results from Australian oral epidemiological studies constantly support the accumulated evidence on the effectiveness of water fluoridation. This includes recent evidence that lifetime exposure to fluoridation is associated with average reductions of 2 dmfs and between 0.12 and 0.30 DMFS per child compared with non-exposed children".

Do these authors really believe that these numbers are strong evidence in support of fluoridation's effectiveness? Let's look at exactly what these numbers actually mean.

Let's begin with an explanation of the terms used:

dmfs - decayed, missing and filled surfaces of the primary (baby) teeth

DMFS - decayed missing and filled surfaces of the secondary (adult) teeth.

Thus a savings of 2 dmfs is the saving of two tooth surfaces in the primary teeth, which amounts to less than half a tooth. However, even this moderate savings is problematic, because of the complicating factor that fluoride delays the eruption of teeth.

As Dr. Hardy Limeback, Head of Preventive Dentistry at the University of Toronto, has noted:

Fluoride ingestion delays tooth eruption and this may account for some of the differences seen in the past between fluoridated and non-fluoridated areas (i.e. dental decay is simply postponed). No fluoridation study has ever separated out the systemic (eruption delaying) effects of fluoride.

But it is with the secondary teeth where the claims of "effectiveness" become truly preposterous. A saving of between 0.12 and 0.30 of the tooth surfaces (DMFS) out of a total of 128 tooth surfaces in a child's mouth, is a saving of between 0.09% and 0.23%! It is highly unlikely that such savings have any statistical, let alone clinical, significance.

Making these claims of "safety and effectiveness" even more bizarre is that these same authors report dental fluorosis rates in fluoridated communities ranging from 40% (in Western Australia) to 56% (in South Australia).

How can any one in their right mind promote a practice that saves at most 0.23% of the tooth surfaces in a child's mouth, while contributing to permanent damage of the enamel in about half the population?

Some of this damage is very mild, but 5-11% are affected in more severe categories, which can often require expensive cosmetic surgery to repair. This level of damage to the tooth enamel (dental fluorosis) is 4-5 times higher than the original goal of those who launched the fluoridation program who thought at 1 ppm fluoride, they could limit dental fluorosis to 10% of the population in its mildest category.

Fluoridation proponents like to claim that dental fluorosis (which they love to call a "cosmetic effect") is the only possible adverse effect of fluoridation.

However, we know that 50% of the fluoride we ingest each day accumulates in our bones and a recent study from Mexico indicates that the severity of dental fluorosis correlates well with the frequency of bone fractures in children (Fluoride 2001; 34: 2, 139-149).

Moreover, there are numerous studies in the literature that have found an association between increased hip fracture and life long exposure to fluoridated water (see <http://www.fluoridealert.org/abstracts.htm>). There are also studies which haven't found this association, but, with an outcome as serious as hip fracture (25% of the elderly who suffer a hip fracture die within a year, 50% never regain an independent existence) how many red flags are you willing to risk for less than one third of a tooth surface?

But, let's give fluoride promoters the benefit of the doubt. Rather than assume that these people are out of their minds, let's just assume that they are not too good at arithmetic! Either way, it is troubling that they are allowed to influence a public health policy that puts a substance - known to be highly toxic - into the drinking water of their citizens.

How Many Nations Fluoridate Their Water?

Lending further evidence to the notion that those promoting fluoridation cannot perform (or at least comprehend) even the simplest arithmetic, is the way they cannot work out either accurately - or even approximately - how many countries in the world actually fluoridate their water. One would have thought with a large work force at its disposal that this would not be a difficult exercise for agencies like the American Dental Association. But apparently this is not the case.

In its Fluoridation Facts brochure (accessed online on August 2000), the American Dental Association stated that "Water Fluoridation is practiced in approximately 60 countries benefiting over 360,000,000 (three hundred sixty million people" (Fluoridation Facts, Question 39). The reference given for these statistics was the British Fluoridation Society. (BFS. Optimal water fluoridation: status worldwide. Liverpool; May 1998).

However, when Doug Cragoe (Fluoride Action Network) and Jane Jones (National Pure Water Association) asked the British Fluoridation Society in August and October of 2000 for this list of 60 countries, they were told that the list does not exist!

This was a bit odd considering that the ADA was citing a 1998 paper from the BFS, which supposedly documented the "60 countries."

But never fear, the BFS assured both Cragoe and Jones that the list would soon be forthcoming. In October 2000, they wrote:

"We will be submitting a paper on fluoridation status worldwide to a journal in the near future"

However, it's now some two years later, and the BFS has yet to furnish the list. On June 26, 2002, Jane Jones again requested the list from the BFS and they again responded that:

"This work is still in progress, and will be published in due course."

But why could a question so seemingly basic, take an institution with deep coffers so long to answer?

The obvious answer: Because nowhere near 60 countries fluoridate their water. And no one seems to know this better than the BFS and the ADA.

Changing the Definition of "Water Fluoridation"

At some point following Craoge's and Jone's exchanges with the BFS in 2000, the ADA made a little-noticed change to their Fluoridation "Facts" page.

They changed the wording of their statement from " Water Fluoridation is practiced in approximately 60 countries" to "Water fluoridation (natural and/or adjusted) is practiced in approximately 60 countries..." (change bolded)

In other words, **the ADA - no doubt hoping it would go unnoticed - had made a rather large change, not to its own figures, but to the very definition of what constitutes water fluoridation.**

According to Websters Dictionary, water fluoridation means "the addition of a fluoride to the water supply (to prevent dental decay)."

But, the ADA is now telling us that a country doesn't have to actually add fluoride to its water to be listed as 'practicing water fluoridation.' Instead, it simply has to have some area of its nation-state with

elevated levels of naturally occurring fluoride in the water. It also puts a very peculiar connotation on the word "practice". How do you "practice" something that happens to you naturally?

By this definition, the US could ban the practice of adding fluoride to water supplies, and still be listed by the ADA as "practicing water fluoridation" because, indeed, some water supplies in the US have elevated levels of naturally occurring fluoride.

If this weren't bad enough, the ADA and BFS still can't produce a list of 60 countries under this expanded definition of water fluoridation. Even though the ADA still supports its 60 country claim by citing the British Fluoridation Society, the BFS maintains that it doesn't know yet whether this 60 country figure is correct.

To quote from their website:

"The British Fluoridation Society is in the process of validating these data which have been collected in an ad hoc manner over several years. A detailed up-to-date table will be published in due course."

As the BFS attempts to put together this list, they will face some rather awkward questions. Will they cite India or China, or the dozens of other countries where naturally occurring fluoride is causing [a host of severe human health problems](#) and where money is being actively sought to REMOVE fluoride from the water?

Indeed, it would be rather ironic if the BFS listed India, China, and other countries where defluoridation is being actively implemented - and in which not one artificial fluoridation program exists - as examples of countries "practicing water fluoridation."

Enter the New Zealand Authorities

While I was in New Zealand recently, I read with interest two additional papers in which fluoridation proponents tackle this question of water fluoridation's international status - one by the Bay of Plenty District Health Board (New Zealand) and the other by the Public Health Commission of New Zealand (PHC).

In the former paper (dated June 2002) 41 countries are cited as artificially adding fluoride to the water. But of these 41 countries, the authors are only able to cite 11. And of the 11 countries they cite, one (Finland) stopped its fluoridation program back in 1991, and another (Switzerland) only fluoridates one community - Basle.

So what about the other 31 countries?

Fortunately, the PHC report (dated 1994) provides a little bit more information on the matter. According to the PHC:

"...water fluoridation has been adopted by an estimated 39 countries (1984 data) with approximately 155 million people being supplied with fluoridated water in 1978 (Rozier, 1992)."

To their credit, the PHC - unlike the ADA or BFS - provides a list of the 39 countries which supposedly fluoridate their water. However, a quick examination of the list reveals a number of errors.

The PHC's list counts Greece and Romania as part of the 39. Neither of these countries, however, practice fluoridation (Martin 1991). The PHC list also counts the Phillipines as one of the 39, despite the fact that the only areas in the Phillipines with fluoridated water are US military bases that comprise just 0.014% of the population (Martin 1991).

In addition, the PHC lists Bulgaria, Hungary, and Italy - 3 countries that the World Health Organization, in 1987, listed as having no existing water fluoridation programs. Thus, unless fluoridation programs were implemented in these 3 countries between the years 1987 and 1994 (the year in which the PHC report was issued), these 3 countries should also be stricken from the list.

Thus, upon a cursory glance, the PHC number should be 33, not the 39 as is claimed. Actually, the number should probably be 32, since the PHC cites Switzerland twice, thereby making their list total 38, not 39.

Of these 32 countries, it should be noted that 21 of them are listed as having "unknown legal status" in regards to fluoridation. What does this mean?

Of my knowledge of the 21 countries, I can attest to the fact that at least 3 of them do indeed practice fluoridation - at least as of 1991. That leaves 18 still in the "unresolved category".

Thus, according to the PHC, at least 14 countries practice water fluoridation to some extent (4 of these 14 countries, as of 1991, practiced fluoridation in just one community - Fiji, Papua New Guinea, Portugal and Switzerland), while 18 others may practice water fluoridation to some extent.

That makes the grand total anywhere from 14 to 32, which in any case, is a far cry from the ADA's claim of 60.

To state the obvious, if these "authorities" cannot count up to 60, what credence should we give their other "research" claims?

Let me end with something we do know. In the democracies of Western Europe, water fluoridation has been almost unanimously rejected. Countries there that have rejected fluoridation include Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Italy, Luxembourg, Netherlands, Norway, and Sweden. For explanations of why these countries chose not to fluoridate, visit www.fluoridealert.org/govt-statements.htm.

Of particular interest in this respect is that according to [World Health Organization figures](#) their children's' teeth are just as good, if not better, than the teeth of children in fluoridated countries. And that isn't fuzzy math!

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This article first appeared in the excellent health news site RedFlagsWeekly.com.

DR. MERCOLA'S COMMENT:

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Dr. Connett is one of the leading experts on fluoride in the US. He has dedicated a significant amount of resources over the past few years to fighting the fluoride battle.

If you want further information on this important topic, visit his site: www.fluoridealert.org.

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