



Fluoride in Our Water

James Biddle, MD

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James Biddle, MD
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Disclaimer

- Disclaimer – this is simply an educational program and is not intended to diagnose or treat any individuals. Diagnosis and treatment of any disease should be done by a licensed health care practitioner in an office setting.



Who I am

- BA in Biology, University of Missouri – Columbia 1984 (genetics & evolution).
- M.D. @ Univ of MO – Columbia 1989.
- **Internal Medicine** in Portland OR – Board Certified 1992; recertified in 2002.
- www.earthaven.org , www.acam.org , www.ncims.com



Toxic Effects from Fluoride

- Kaj Roholm (Danish M.D.), 1937
 - Numerous toxic effects of industrial fluoride pollution in Europe.
 - “The once general assumption that fluorine is necessary to the quality of enamel rests on insufficient foundation...the enamel organ is electively sensitive to the deletrious effects of fluorine.”



To See the Science:

fluoridealert.org

Flouride Action Network

<http://www.fluoridealert.org/health/biblio.html>

Paul Connett PhD

Prof of Chemistry at

St. Lawrence University in NY



By Paul Connett, PhD

Fluoridation is **Unethical** because:

- 1) It violates the individual's right to informed consent to medication.
- 2) The municipality cannot control the dose of the patient.
- 3) The municipality cannot track each individual's response.
- 4) It ignores the fact that some people are more vulnerable to fluoride's toxic effects than others. Some people will suffer while others may benefit.
- 5) It violates the Nuremberg code for human experimentation.



By Paul Connett, PhD
Fluoridation is **Unnecessary** because:

- 1) Children can have perfectly good teeth without being exposed to fluoride.
- 2) The promoters (CDC, 1999, 2001) admit that the benefits are topical not systemic.
- 3) The vast majority of western [Europe](#) has rejected water fluoridation, but has been equally successful as the U.S., if not more so, in tackling tooth decay.



By Paul Connett, PhD
Fluoridation is **Unnecessary** because:

- 4) If fluoride was necessary for strong teeth one would expect to find it in breast milk, but the level there is 0.01 ppm, which is 100 times LESS than in fluoridated tap water (IOM, 1997).
- 5) Children in non-fluoridated communities are already getting the so-called "optimal" doses from other sources (Heller et al, 1997). In fact, many are already being over-exposed to fluoride.



By Paul Connett, PhD

Fluoridation is **Ineffective** because:

- 1) Major dental researchers concede that fluoride's benefits are topical not systemic.
 - (Fejerskov 1981; Carlos 1983; CDC 1999, 2001; Limeback 1999; Locker 1999; Featherstone 2000).
- 2) Major dental researchers also concede that fluoride is ineffective at preventing pit and fissure tooth decay, which is 85 percent of the tooth decay experienced by children.
 - (JADA 1984; Gray 1987; White 1993; Pinkham 1999).
- 3) Several studies indicate that dental decay is coming down just as fast, if not faster, in non-fluoridated industrialized countries as fluoridated ones.
 - (Diesendorf, 1986; Colquhoun, 1994; World Health Organization, Online).



By Paul Connett, PhD

Fluoridation is **Ineffective** because :

- 4) The largest survey conducted in the U.S. showed only a minute difference in tooth decay between children who had lived all their lives in fluoridated compared to non-fluoridated communities. The difference was not significant clinically nor statistically (Brunelle & Carlos, 1990).
- 5) The worst tooth decay in the U.S. occurs in the poor neighborhoods of our largest cities, the vast majority of which have been fluoridated for decades.
- 6) When fluoridation has been halted in communities in Finland, former East Germany, Cuba and Canada, tooth decay did not go up but continued to go down (Maupome et al, 2001; Kunzel and Fischer, 1997, 2000; Kunzel et al, 2000 and Seppa et al, 2000).

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By Paul Connett, PhD

Fluoridation is **Unsafe** because :

- 1) It accumulates in bones and makes them brittle. Lifetime exposure to fluoride will contribute to **higher rates of hip fracture** in the elderly.
- 2) It accumulates in our pineal gland, **lowering melatonin**, a very important regulatory hormone (Luke, 1997, 2001).
- 3) It damages the enamel (**dental fluorosis**) of a high percentage of children.
- 4) There are serious concerns about a connection between fluoridation and **osteosarcoma** in young men (Cohn, 1992), as well as fluoridation and the current epidemics of both **arthritis and hypothyroidism**.



By Paul Connett, PhD

Fluoridation is **Unsafe** because :

- 5) In animal studies fluoride at 1 ppm in drinking water **increases the uptake of aluminum** into the brain (Varner et al, 1998).
- 6) Counties with 3 ppm or more of fluoride in their water have **lower fertility rates** (Freni, 1994).
- 7) In human studies the fluoridating agents most commonly used in the U.S. **increase the uptake of lead** into children's blood (Masters and Coplan, 1999, 2000) and are associated with an **increase in violent behavior**.



Dr. Peter Mansfield, a physician from the UK :

- Advisory board member of the recent government review of fluoridation (McDonagh et al 2000):
- "No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: 'Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay.' **It is a preposterous notion.**"



If Fluoridation is :

- Unethical,
- Unnecessary,
- Ineffective,
- Unsafe,
- and against pharmacological principles,
- **Then Why** fluoridate drinking water?

(play theme from Twilight Zone)

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Fluoride – ‘Left Over’ from the Manhattan Project

- 1943 downwind of E.I. du Pont du Nemours chemicals in Deepwater NJ, producing millions of pounds of **F** for the Manhattan Project.
- Gloucester & Salem counties: Poultry died. Peach farms blighted. Cows and horses crippled. Extraordinary Fluoride content in vegetables and human blood.
- Farmers waited until end of WWII, then they sued du Pont and the Manhattan Project.



Fluoride – ‘Left Over’ from the Manhattan Project

- **Harold C. Hodge** = Manhattan Project’s Chief of Fluoride Toxicology.
- His boss = Colonel **Stafford L. Warren**, Chief of the Medical Division.
- His boss = Major General **Leslie R. Groves**, Chief of the Manhattan Project.
- 8-27-45 “At the request of the Secretary of War, the Dept of Agriculture has agreed to cooperate in investigating complaints of crop damage... in connection with the Manhattan Project.”



Fluoride – ‘Left Over’ from the Manhattan Project

- 1946 memo → FDA to embargo the region's produce due to “high Fluoride content”.
- du Pont lawyers → General Groves → Capt John Davies (Manhattan Project) → Dr. White (FDA Food Division chief) → embargo cancelled.
- New Fluoride testing ordered → done not by the Dept of Agriculture, but now by the US Army Chemical Warfare Service !
- Why? Groves memo → because it “would carry the greatest weight as evidence if...lawsuits are started by the complainants.”



Fluoride – ‘Left Over’ from the Manhattan Project

- NJ farmers’ lawsuits settled for tokens after du Pont’s refusal to disclose amount of **F** released “due to military security”.
- **Harold C. Hodge memo** to Col Warren: “Would there be any use in making attempts to counteract the local fear of **F** on the part of residents ... through lectures on **F** toxicity and perhaps the usefulness of **F** in tooth health?”
- Such lectures given nationwide thru the Cold War, and the mantra is still repeated today.



Fluoride – ‘Left Over’ from the Manhattan Project

- Fluoride safety studies done at Univ of Rochester (same place/time as non-consent radioactive plutonium studies), headed by **Harold C. Hodge** ! (military affil kept secret)
- Ordered to provide “evidence useful in litigation” against citizens with Fluoride injury.
- study by **Program F** scientists, published in 1956 JADA, but adverse health effects of Fluoride censored by the AEC (Atomic Energy Commission).



“Newburgh Study”

- 1945-1956 in Newburgh, N.Y.
- Fluoride artificially added to water supply.
- Children ages 7-14 monitored for dental, growth, hemoglobin levels, joint health.
- Now de-classified evidence tells that concerning health effects never published.
- Harold C. Hodge became leading national proponent for Fluoridation of drinking water.



“Grand Rapid MI Study”

- 15 year experiment began 1945, sodium fluoride added to **Grand Rapids, MI’s** public water supply. Nearby Muskegon was left fluoridation-free as the control city.
- The study failed; after only five years, cavities went down in both Grand Rapids and Muskegon. So officials fluoridated Muskegon - which scientifically nullified the study.
 - Grand Rapids fluoridation Study – Results Pertaining to the Eleventh Year of Fluoridation, by Francis A Arnold; Am J Public Health, May 1957

www.pubmedcentral.nih.gov/picrender.fcgi?artid=1551218&blobtype=pdf

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Initial Studies Provide False Data

- Professional statisticians employed to study the data concluded: "the lack of sophistication shown in selecting the sample leads to **complete bewilderment** as to the precise effects or the extent of the effect of fluoridation" (De Stefano 1954).
- The Grand Rapids experiment never proved fluoridation was effective and didn't even look for adverse health effects. But that hasn't stopped public officials and organized dentistry from saying it did.
 - Fluoridation: Errors and Omissions in Experimental Trials [Chapters 19, 20 and 21. Philip Sutton. Originally published in 1960]www.awaywolf.com/fluoridation/science/papers/sutton/sutton_1a.htm



Fluoride – From Coal Burning to Your Water

- EPA

- Fluoride toxic to farmlands and animals
- Mandated stack scrubbers to decrease fluoride pollution.
- Stack sludge fluoride bound to silica, little value.
- Toxic fluoride collected, concentrated, sold to cities following government sanctioned water fluoridation after the Newburgh study.



Fluoride from Waste Products

Federal Agencies admitted in 1999-2000:

- Industrial grade waste products used to fluoridate over 90% of America's drinking water supplies (fluorosilicate compounds) never subjected to toxicological testing or FDA safety-tested approved for human ingestion.
- Go to www.keepersofthewell.org for relevant documents.



ADA and CDC

- ADA policy recommends infant formula NOT be prepared with formulated water.
 - Nov. 2006 Policy change
 - Only “purified, distilled, deionized, demineralized, or produced through reverse osmosis.”
- CDC data 2005 – Dental fluorosis caused by fluoride over-exposure, impacts 32% of American children.
 - Causes abnormal discoloration and mottling of the enamel which is irreversible and sometimes disfiguring.



Government Concessions

- CDC concession - 1999 and 2001
 - Predominant benefit of fluoride in reducing tooth decay is TOPICAL and not SYSTEMIC.
- “York Review” - 2000 UK Government
 - First systematic scientific review of fluoridation (McDonagh et al., 2000).
 - NONE of the studies claiming effectiveness of fluoridation to reduce tooth decay were “grade A status” (i.e. “high quality, bias unlikely”).



Petition for Fluoridation Moratorium

- NY. Aug. 9, 2007. 600 professionals urge Congress to stop water fluoridation until Congressional hearings are conducted.
- Cite new scientific evidence that “fluoridation, long promoted to fight tooth decay, is ineffective and has serious health risks.”

Fluoride Action Network: www.fluorideaction.net



Fluoridation is Hazardous

- “It must be concluded that the fluoridation of public water supplies is a hazardous procedure, people are bound to get hurt.”
 - Director of Laboratories, Dep. of Water Supply, Gas and Electric, City of New York, 1956.
- Adverse Health Effects from Fluoride in Drinking Water. Kathleen M. Thiessan, Ph.D.



Fluoridation Must be Ended Now

“It is time for the US, and the few remaining fluoridating countries, to recognized that fluoridation is outdated, has serious risks that far outweigh any minor benefits, violates sound medical ethics and denies freedom of choice.

Fluoridation must be ended now.”

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NC Admin Code req. NSF Standard 60

- NCAC 18c.1537- Drinking Water Additives
- “d) a supplier of water shall not willfully introduce or permit the introduction of a water supply product into a public water system which does not meet the requirements of this rule [NSF Standard 60].”



Fluoride – NSF Contaminant Guide

Fluoride	
Maximum Contaminant Level (MCL)	4.0 mg/L
Potential Health Effects (from ingestion of water)	Skeletal and dental fluorosis
Potential Source of Contaminant	Natural deposits, fertilizer, aluminum industries, water additive
Applicable NSF/ANSI Standard(s)	Standard 53 Standard 58 Standard 62
Water Treatment Technologies Certified by NSF for Reduction of this Contaminant	Reverse osmosis Distillation
Special Notes	None

www.nsf.org/consumer/drinking_water/contaminant_fluoride.asp?program=WaterTre

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July 2007 - Brevard City Council votes to remove fluoride additives from municipal water.

- Brevard has been fluoridating water since 1980, Hendersonville since 1997.
- “After reviewing the data...council felt there was enough uncertainty as it relates to the possible detrimental effects and that’s why they unanimously made the decision to remove fluoride from the city’s water.” – City Manager Joe Albright



Online Petition to End Fluoridation and call for a Congressional Hearing

- www.fluorideaction.net/congress
- Contact: Paul Beeber, Esq nyscof@aol.com
- SOURCE: New York State Coalition Opposed to Fluoridation, Inc
- PO Box 263, Old Bethpage, NY 11803
- www.orgsites.com/ny/nyscof
- www.FluorideAction.Net
- News Releases: <http://tinyurl.com/6kqtu>



LAB#: U000000-0000-0
PATIENT: Sample Patient
ID: PATIENT-S-0001
SEX: Female
AGE: 68

CLIENT#: 12345
DOCTOR:
Doctor's Data, Inc.
3755 Illinois Ave.
St. Charles, IL 60174

Urine Halides; Pre & Post Loading

Iodine	$\mu\text{g}/\text{mg cr}$	$\text{mg}/24 \text{ hr}$	Reference Range	
Sample 1 PRE	0.44		0.1- 0.45 $\mu\text{g}/\text{mg cr}$	Iodine levels include iodine and iodide oxidized to iodine. Excretion percentage is calculated by dividing the patient's $\text{mg}/24\text{hour}$ Iodine result by the Iodine/Iodide dosage (in mg) recorded on the requisition form, then multiplying by 100.
Sample 2 POST	32	22	0.1- 0.45 $\text{mg}/24 \text{ hr}$	
% Excretion/24 hr		44%		

Fluoride	$\mu\text{g}/\text{mL}$	$\text{mg}/24 \text{ hr}$	Reference Range	
Sample 1 PRE	.5		0.2- 1.1 $\mu\text{g}/\text{mL}$	Fluoride in urine is measured using an ion specific electrode. Fluoride is neurotoxic, compromises integrity of bone, and interferes with iodide metabolism. Primary sources of fluoride include fluoridated water, beverages, toothpaste/mouth washes, dental treatments and some medications.
Sample 2 POST	.9	3.9	2.3- 4.2 $\text{mg}/24 \text{ hr}$	

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Bromine

Sample 1 PRE

 $\mu\text{g}/\text{mg cr}$

3.6

mg/24 hr

Reference Range

0.9- 4.7

 $\mu\text{g}/\text{mg cr}$

Sample 2 POST

4.1

3.1

0.9- 4.7

mg/24 hr

Bromine levels represent total bromine plus bromide, as measured by ICP-MS. Bromide is antagonistic to iodide, and is abundant in commercially produced baked goods, soft drinks, pesticides, brominated chemicals and some medications.

Creatinine

Sample 1 PRE

Result

57

Reference Range

35 - 225

mg/dL

Sample 2 POST

680

600- 1900

mg/24hr

Urine Creatinine is used to account for urinary dilution effects in less than 24-hour collections and to assess the collection completeness in 24-hour collections. For estimation of glomerular filtration rate (GFR), a Creatinine Clearance test is recommended.

Comments:

#1 Date Collected: 3/15/2007

#2 Date Collected: 3/16/2007

Date Received: 3/17/2007

#1 Collection Period: Random

#2 Collection Period: 24 hr coll

Date Completed: 3/18/2007

#2 Volume: 2000 ml

<dl: less than detection limit

#2 Loading Dosage: 50 MG

Method: I, Br by ICP-MS/ F by ISE
Creatinine by Jaffe method

Reference ranges are representative of a healthy population under non-challenge or non-loading conditions.

V04.07

1																	18
1 H 1.0079																	2 He 4.0026
3 Li 6.941	4 Be 9.0122											5 B 10.811	6 C 12.011	7 N 14.007	8 O 15.999	9 F 18.998	10 Ne 20.180
11 Na 22.990	12 Mg 24.305	3	4	5	6	7	8	9	10	11	12	13 Al 26.982	14 Si 28.086	15 P 30.974	16 S 32.065	17 Cl 35.453	18 Ar 39.948
19 K 39.098	20 Ca 40.078	21 Sc 44.956	22 Ti 47.867	23 V 50.942	24 Cr 51.996	25 Mn 54.938	26 Fe 55.845	27 Co 58.933	28 Ni 58.693	29 Cu 63.546	30 Zn 65.38	31 Ga 69.723	32 Ge 72.64	33 As 74.922	34 Se 78.96	35 Br 79.904	36 Kr 83.798
37 Rb 85.468	38 Sr 87.62	39 Y 88.906	40 Zr 91.224	41 Nb 92.906	42 Mo 95.96	43 Tc -	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.76	52 Te 127.60	53 I 126.90	54 Xe 131.29
55 Cs 132.91	56 Ba 137.33	57-71	72 Hf 178.49	73 Ta 180.95	74 W 183.84	75 Re 186.21	76 Os 190.23	77 Ir 192.22	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po -	85 At -	86 Rn -
87 Fr -	88 Ra -	89-103	104 Rf -	105 Db -	106 Sg -	107 Bh -	108 Hs -	109 Mt -	110 Ds -	111 Rg -							

57 La 138.91	58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm -	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.05	71 Lu 174.97
89 Ac -	90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np -	94 Pu -	95 Am -	96 Cm -	97 Bk -	98 Cf -	99 Es -	100 Fm -	101 Md -	102 No -	103 Lr -



Dental Fluorosis Figures

- As of 2005 surveys conducted by the National Institute of Dental Research in the USA between 1986 and 1987 and by the Center of Disease Control between 1999 and 2002 are the only national sources of data concerning the prevalence of dental fluorosis.

NIDR and CDC Findings		
Deans Index	1987	2002
Questionable fluorosis	17%	11.8%
Very mild fluorosis		19%
Mild fluorosis	4%	5.83%
Moderate fluorosis	1%	0.59%
Severe fluorosis	0.3%	
Total	22.3%	37.2%

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Dental Fluorosis Prevalence

- The Center of Disease Control found a 9% higher prevalence of dental fluorosis in American children than was found in a similar survey 20 years ago.
- African Americans suffer from higher rates of fluorosis than Caucasian Americans.
- The condition is more prevalent in rural areas where drinking water is derived from shallow wells or hand pumps. It is also more likely to occur in areas where the drinking water has a fluoride content of more than 1ppm (part per million), and in children who have a poor intake of calcium.



Osteosarcoma

- Terry Fox
- Leg amputated as a child.
- Terry Fox Race still raises money for cancer victims.