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®

Supplement
The Art of Getting Well
**Flouridation: Governmentally
Approved Poison**

Sources are given in references.

Authors of contributions/quotations are alphabetically arranged; major author, if any, is underlined.

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AKA The Arthritis Trust of America®,

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Excerpt from:

Hileman B. (1988). Fluoridation of water. Questions about health risks and benefits remain after more than 40 years. *Chemical and Engineering News*. August 1, 1988, 26-42. (See article)

"Although *skeletal fluorosis* has been studied intensely in other countries for more than 40 years, virtually no research has been done in the U.S. to determine how many people are afflicted with the earlier stages of the disease, particularly the preclinical stages. **Because some of the clinical symptoms mimic arthritis, the first two clinical phases of skeletal fluorosis could be easily misdiagnosed.** Skeletal fluorosis is not even discussed in most medical texts under the effects of fluoride; indeed, a number of texts say the condition is almost nonexistent in the U.S. Even if a doctor is aware of the disease, the early stages are difficult to diagnose."

Excerpt from:

Kilborn LG, et al. (1950). Fluorosis with report of an advanced case. *Canadian Medical Association Journal*. 62: 135-141.

"Apparently [skeletal fluorosis] is rare on the North American continent, but a few cases have been reported. . . . **It is quite possible that endemic centres [of skeletal fluorosis] exist but that the cause of the disabling spondylitis or other joint affections has not been**

determined, and a diagnosis of chronic arthritis has resulted. Few cases in Canada or the United States will be found to be as dramatic as that recorded here from Southwest China, . . .

Dental surgeon, Geoffrey E. Smith says, "My 12-year-old granddaughter, Jade-Emma, has 'mottled' teeth, and my wife suffers from osteoporosis.

"Jade's disfigured teeth were caused by fluoride, and there is now a growing body of evidence suggesting that fluoride can be a factor in the development of osteoporosis.

"Is the dental wonder of the 1950s set to become the medical blunder of the 1990s?

"Such a thought is particularly frustrating for me since I belong to the profession -- dentistry -- which has, for the past 40 years, claimed that fluoride was essential for sound teeth and 'good' for bones⁴⁵."

How Poisoning a Town Starts

This author was city manager of a small community for a short time, when a young nurse asked to speak before our City Commissioners for the purpose of requesting that the city add fluoride to the water supply.

Of course, anyone who wishes it could speak before our City Commissioners, and so the young nurse was invited to do so.

Her pitch consisted primarily of a request for building healthier teeth through our young ones -- who can resist such an appeal? -- and to point out that surrounding communities, much larger cities throughout the nation, already had fluoridation.

The City Commissioners turned to me, and asked my opinion. Being somewhat naive and sans research, I agreed with the nurse, and so together we naively, innocently, and stupidly added fluoride to the City of Fairview's (Tennessee) water supply, and that addition continues to this date, despite the fact that the citizens of the City of Fairview, TN have never had an opportunity to know the pros and cons of fluoridation or to vote for or against the issue.

We unknowingly doomed hundreds of Fairview citizens to Arthritis, vertebral and hip fracture, osteosarcoma (cancer), infertility, birth defects, bone damage, damage to the immune system, fluorosis, fluoride neurotoxicity, and many other poorly diagnosed conditions, as fluoride affects every human system, often by inhibiting enzymes which are essential for the functioning of every human system.

Besides the damaging of human tissue by 1 ppm of fluoride added to our public water systems, the health problem is also one of massive overconsumption of fluoride. We are being bombarded with fluoride from all our dental products and also many industrial sources.

Physicians and nurses, of course, are authoritative figures, especially in the minds of those who do not specialize in health care. If doctors, nurses, or public health officials say that a drug is good for us, we tend to believe them, and we don't question their credentials or source of information. Had we known that we were dooming thousands of people to lesser, or even damaging, health, we might have questioned further. For example, if the City Commissioners wish to purchase a new truck, each of them holds himself out as somewhat knowledgeable in mechanics, and each would question data brought in by someone that they deemed to have invalid information, or contrary information.

Likewise, when building a ballpark for the City's youth, each commissioner would feel that they had valuable knowledge to contribute.

But question a medical authority or public health official?
Hardly!

Who Benefits By Fluoridation?

So who does benefit by the addition of Fluoride to Public Water Systems?

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Municipalities may use either Sodium Fluoride plus lime or Hydrofluosilic Acid.

The only ones definitely known to benefit from fluoridation are chemical companies and fluoridation equipment firms. Fluoride is one of the most common and also one of the most caustic of industrial chemicals. "Hydrofluoric acid is used to refine high-octane gasoline, to make fluorocarbons and chlorfluorocarbons for freezers and air conditioners, and to manufacture computer screens, fluorescent light bulbs, semiconductors, plastics, herbicides, and fluoride toothpaste. It also has the ability to burn flesh to the bone, destroy eyes, and sear lungs so that victims drown in their own body fluid. What's worse is that hydrofluoric acid boils at 68°F. On a warm day, released hydrofluoric acid forms a low, dense cloud that can remain hazardous 6 miles from its origin.

"Even though industry takes extreme safety precautions, accidents still happen. In 1987, a crane operator at Texas City's Marathon Oil refinery dropped a 90-ton heating unit on a tank of hydrofluoric acid, releasing 5000 gallons of the stuff. Approximately 5800 people were evacuated, and 1037 required hospital treatment. Many of the people exposed still have difficulty breathing. Since 1986, 33 such incidents have involved evacuation, injuries, or death.

"Hydrofluoric acid is made in three U.S. towns, Geismar, Louisiana; La Porte, Texas; and Calvert City, Texas -- and five Mexican ones. More than 21 million gallons are produced and shipped each year. Given its caustic nature and dangerously low boiling point, one can understand why Energy Safety Council, an advocacy group based in Illinois, wants to replace it with sulfuric acid. Almost half of the U.S. refineries use sulfuric acid as a refining catalyst already³²."

It has been said that Fluoride, or hydrofluosilic acid, used in Public Community water supplies is chiefly a waste byproduct of the aluminum industry, and those companies benefit immensely by having us add their toxic waste product to our water system. If we didn't, they'd have an environmental disposal problem, which would increase the cost of aluminum. We, however, very nicely solve the problem for them by paying them for it and then adding it to our drinking water, thereby diluting it, and spreading the dangerous pollutant throughout the land.

Anne Anderson, R.P.N. and Richard G. Foulkes, B.A., M.D.³³ say that 99.9% of the fluoride added to community drinking waters will not be drunk, but flushed down the sewage system, and that the effect will be to deposit, for example, roughly 150 tons of fluoride into the North Pacific's Bow River and environment each year. This effect of spreading toxic substances throughout our environment, through sewage and river systems and ground table waters is repeated and multiplied from every municipality that fluoridates drinking water for wrongly presumed decrease of human cavities.

"Often overlooked, and deliberately obscured, is the effect of fluoride pollution that comes about as a result of fluoride waste disposal, not only from industry" but also from community sewage disposal³³. While there are many factors that affect decreasing fish returns, such as natural cycles, changes in ocean temperature and currents, overfishing, destruction of spawning grounds by poor logging practices, building activities, dams and pollution, obviously the dumping of toxic poison into our streams, lakes and oceans is a major part of the declining fish problem.

The Presumed Scientific Basis for Adding Fluoride to Public Water Systems

Initial Studies Invalid

In 1930, Dr. Trendley Dean, "the father of fluoridation," was responsible for developing the hypothesis that fluoridation was safe and would protect teeth from cavities. He was also the person who established the first trial of fluoridation of the water supply in Grand Rapids, Michigan in 1945. Since that time, he has twice confessed in

court that statistics from the early studies, allegedly supporting the use of fluoridation in community water systems, were invalid¹. (See *City of Oroville vs. Public Utilities*, California 1955 and *Chicago Citizens vs. City of Chicago*, 1960.)

The very earliest studies not supporting the use of fluoridation were published in 1953 in the *Journal of the American Dental Association*¹⁸ and in 1955 in the *American Dental Association*¹⁹.

In the first, a comparative study of tooth decay in 12-14 year olds in six Arizona cities, no reduction in decay and filled or missing teeth could be observed due to fluoridation²⁰.

The second compared teeth of residents of Cameron, Texas (with 4/10th parts per million [ppm] of naturally present fluoride) and those of Bartlett, Texas (with 8 ppm of fluoride). The incidence of tooth decay was found to be no different between Cameron and Bartlett residents.

1979 Injunction Against Fluoridation

Pennsylvania Supreme Court Judge John P. Flaherty, on July 31, 1979, after meticulous study of the scientific data presented before him, wrote, to the Mayor of Auckland, New Zealand, saying, "you are correct that I entered an injunction against the fluoridation of the public water supply for a large portion of Allegheny County. . . . In my view, the evidence is quite convincing that the addition of sodium fluoride to the public water supply at one part per million is extremely deleterious to the human body, and a review of the evidence will disclose that there was no convincing evidence to the contrary¹."

Richard G. Foulkes, B.A., M.D., former Special Consultant to the Minister of Health, Province of British Columbia, and author of a 1973 report, *Health Security for British Columbians*, that convinced Canadians to require Fluoride additions to public water systems, says, "Today, [Judge] Flaherty could make the same judgement of the evidence concerning the effectiveness of fluoridation in the reduction of dental caries, . . ."

Why a Former Consultant to the Minister of Health Changed His Support for Fluoridation

Originally, in 1973, Richard Foulkes, B.A., M.D., commissioned to "study and report on the health care system of the province and to make recommendations. . . .", wrote in his report, "We have studied the data and recommendations submitted to us by the Division of Preventive Dentistry, Health Branch, the College of Dental Surgeons of British Columbia and others referring to the effectiveness and potential hazards of the fluoridation of piped water supplies. We have concluded that the artificial fluoridation of community water supplies is both effective and safe.

"Therefore, we recommend . . . that discussion begin immediately to prepare legislation . . . to make fluoridation of major water supplies mandatory in the Province . . ."

What Dr. Foulkes studied, and recommended in his 1973 *Health Security for British Columbians* was typical of studies and recommendations then occurring around the globe, regarding adding fluoride to public water systems. The government studies by honest, professional and knowledgeable doctors and scientists unknowingly began with incomplete and falsified data.

Dr. Foulkes, author of the 2000-page report that convinced Canada to add fluoride to their municipal water systems, has since rocked the Canadian establishment when he recently recanted and said:

- No reference was made to the fact that Dr. Trendley Dean's data supporting fluoridation was based on statistics that were invalid.
- There was no reference to Philip R.N. Sutton's critique in 1959 of five studies carried out at Newburgh, Grand Rapids, Evanston and Brantford that had begun in 1940's, relating fluoride concentration to dental caries, and which had served as the original justification for fluoridation in the United States, Britain, Canada, Australia, New Zealand and several other English-speaking countries. Only three of

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these studies had controls for the full period of the study, and Philip Sutton had criticized them for poor experimental design, poor or negligible statistical analysis and failure to take into account large variations in caries found in the control towns.

- The World Health Organization (WHO 1970) and the National Academy of Science (NAS 1971) both expressed concerns about the safety of fluoride.

- The studies that had been reported prior to 1972 on the toxic effects of fluoride did not find their way into [Dr. Foulkes'] hands, or his advisors. These studies had revealed tumor formation in mice (1952, 1956), genetic damage to plants (1966) and fruit flies (1970, 1971).

- A report by Dyson Rose and John R. Marier for the Research Council of Canada in 1971, entitled *Environmental Fluoride* reviewed the hazards of fluoride in its various distribution including water supplies, and was again updated in 1977. Dr. Foulkes says, "If all information then extant had been examined, it should have been obvious that there was a need for caution and further studies, including study of those areas of potential non-lethal effects of chronic accumulation on populations exposed to lifetime ingestion [of fluoride] . . . our 1973 recommendation should have gone against that of the 'establishment' and submitted that fluoridation of community water supplies for the purpose of causing a reduction in tooth decay was on shaky ground and was far from being proved with regard to safety. . . . In light of what is currently found in reputable journals with peer review mechanisms and in various Government documents and correspondence, I now hold a different view. That is that the fluoridation of community water supplies can no longer be held to be either safe or effective in the reduction of dental caries . . . Therefore, the practice should be abandoned or 'put on hold' until all available information is evaluated by persons who are competent in the principles of research and who have no vested interest in those institutions and professional organizations that are currently involved in the thrust!"

Summary of Studies Since 1973

A summary of scientific studies made since 1973 conclude that the prescribed or "optimal" level of 1 ppm (1 mg/l) of fluoride, presumed to reduce incidence of decayed, missing or filled teeth can no longer be considered true.

Scientist D. Ziegelbecker² in 1981 found no correlation between the level of fluoride in water and dental caries. Other studies performed in Japan in 1972 also destroyed the basic hypothesis that supported the case for adding fluoride to community water systems¹.

Mark Disendorf³ studied the relationship to decayed, missing or filled teeth between fluoridated and non-fluoridated areas in 8 developed countries over 30 years and showed reductions in tooth decay in both Fluoride and Non-fluoride areas that could not be attributed to Fluoride.

According to Yiamouyiannis, in an analysis of U.S. data provided by the National Institute of Dental Research (NIDR) covering 40,000 children, there was no showing of reduced decay rate between Fluoride and Non-Fluoride regions¹.

In New Zealand, J. Colquhoun⁴ demonstrated that reductions in dental caries were taking place before the fluoridation of water supplies and the introduction of fluoride toothpastes.

Pro-fluoridation professionals conducted a study presuming to show a difference between Fluoride and Non-fluoride populations, and came up with a difference of 17% to 20% respectively, which is a difference of 1 tooth surface on the average⁵. A similar study⁷ in an aging community showed the same small difference without mentioning the extremely high risks encountered by the elderly which will be discussed in this report later.

A ten-year study of Canadian children (British Columbia) came

to the conclusion that fluoridation of community water supplies was "yesterday's technology⁶."

The studies on presence of decayed, missing and filled teeth are "subjective" and easy to manipulate, and there is strong evidence that this was originally done in New Zealand and areas such as Scotland where Fluoridation has at last been discontinued¹.

A Pharmacist Speaks Out

The registered pharmacist, Robert O. Dustrude, R.Ph. of Wausau, WI wrote to the Criteria and Standard Division of Drinking Water, Environmental Protection Agency, in Washington, D.C., saying:

"My first approach is as a pharmacist who became interested in the fluoridation issue several years ago. My research of the literature has disclosed that fluoride is a protoplasmic poison as described in the reference book *Clinical Toxicology of Commercial Products*. The same reference book discloses that fluoride salts have a toxicity rating between 4 and 5 (very toxic to extremely toxic). Aside from the literature, I remember when I first started working in drug stores that we used to sell sodium fluoride powder as an effective cockroach poison. I have often asked myself: 'Why on earth would any sane person want to add that stuff to our drinking water?'

"Just about everything that I dispense in filling prescriptions has passed the rigors of controlled, double-blind studies before it becomes part of our medical armamentarium. No such studies exist for fluoride, meaning there is no scientific evidence substantiating the claims made for it. Why should this substance be exempt from the standards that apply to other medicines? On the other hand, according to Dr. Hans Mollenburgh in *Fluoride: The Freedom Fight*, a double-blind test showed that fluoridated water caused side-effects.

"Another consideration is the fact that sodium fluoride requires a prescription. I cannot sell the tablets or drops from any shelves without a valid prescription being presented by my customers. Incongruously, laymen who don't know the difference between a halogen and a halide, can "prescribe" fluoride for our drinking water in concentrations that would otherwise require a prescription. For example, at 1 ppm there would be 1 mg of fluoride in 1000 ml of drinking water, a volume easily ingested considering all avenues (e.g., drinking water, soups, Kool-aid, etc.)

"This leads to another issue, the doctor-patient relationship. I know of cases where doctors, using their knowledge of their patients' conditions (arthritis and pre-disposition to cancer), have advised those patients to avoid fluoride. This advice is all but impossible to heed when the drinking water is fluoridated. I submit that it is more logical and ethical to leave the doctor-patient relationship intact by having fluoride available, if at all, only by prescription, instead of forcing it literally and figuratively down our throats.

"I would like to approach the issue not as a pharmacist, but as a concerned, outraged citizen. Even if artificial fluoridation was beneficial, there can be no excuse for the arrogant, heavy-handed, arbitrary way in which that procedure is accomplished. I reside in the town of Rib Mountain, a township which has recently installed its own water and sewer system. Before long, the sanitary commission, without any expertise or qualifications, proposed fluoridating our water. At a subsequent meeting, a representative from the Wisconsin Division of Health gave a talk on the virtues of fluoride. Inasmuch as dental caries is not a contagious, communicable disease, his attendance was not only inappropriate, but he gave probably the most mendacious presentation I have ever heard. The agenda for this meeting was posted only the legal 24-hours ahead of time, not allowing me time to bring in a professor acquaintance of mine to present his testimony on fluoride toxicity. The sanitary commission then, in what was obviously a predetermined decision, voted to install fluoridation without holding a referendum or otherwise allowing the citizenry a chance to examine both sides of the issue. An attorney friend still insists that the above action was in

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violation of Wisconsin's open-meeting law, but the local district attorney decided not to prosecute.

"Inasmuch as fluoride is readily available by prescription, and in mouth washes, toothpastes, etc. thus making artificial fluoridation passe, I urge your committee to undertake whatever action you are authorized to do to remove this known poison from our drinking water⁸."

Safety of Fluoridation Questioned

Dental Fluorosis

Dental Fluorosis is the discoloration and pitting, even crumbling of teeth, and overgrowth and weakening of bone.

"While evidence of a link with cancer is relatively new, the link between fluoride and brittle bones is well established. . . . Despite solid evidence to the contrary, fluoride is still prescribed as a treatment for osteoporosis.¹¹"

There is now sufficient information in scientific studies to demonstrate that 1 ppm, or higher, of fluoride in community drinking water is neither safe for health nor effective in preventing cavities. At this "optimal" level, "dental and skeletal fluorosis (discoloration and pitting, even crumbling, of teeth and overgrowth and weakening of bone) have been identified. . . .⁴" About 30% of children in fluoridated areas suffer from fluorosis compared to 4.25% in low fluoride areas⁴.

Although most of the studies concentrate on "cosmetic impairment," that is, the appearance of the teeth, Colquhoun⁴ says that "The claim that only tooth cells are damaged by fluoride is extremely implausible on scientific grounds. There is evidence of general harm⁴," [to the body].

Apparently there is also an increase in fluorosis in tropical countries, as I.D. Brouwer and others¹³ reported in its incidence in Senegal where WHO standard of 1.2 ppm was adopted. Richard G. Foulkes, B.A., M.D. says, "The hot climate and poor nutritional status of the inhabitants result in high ingestion of the substance.

"Dental and skeletal fluorosis is seen, also, at low doses in those with kidney disease and can be anticipated to be a more frequent occurrence in the developed countries as the total fluoride increases from all sources including: industrial air emissions, water, fluoridated dental and other medicinal agents, foods and even teflon cooking utensils¹." (See "Dietary Fluoride Intake in the U.S.A. Revisited," *Fluoride*, Vol. 24, No. 1, 1991 for the ever-present distribution of Fluoride).

Hip Fractures

Hip Fractures have occurred with increasing frequency among women, especially post-menopausal, since the addition of fluoride to drinking water. M. Bely, M.D. says, that it is commonly recognized that about 10% of bone tissue is reorganized each year. As bone tissue breaks down, other cells rebuild it. "It is a generally accepted fact, that . . . fluoride causes enlargement of the whole bone mass. . . . Authors agree that the [newly] formed bone is inferior to normal, the matrix is irregular, the collagen structure of the newly formed bone tissue differs from normal, and the mineralization is enhanced. . . . so fluoride exerts its effects not only on the newly generated (newly formed woven) bone tissue, but also changes the collagen structure of the preexisting bone too⁹."

The incidence of hip fractures in 246 patients 65 years of age or older was compared in three communities in Utah, one with and two without water fluoridated to 1 ppm, over a seven year period. Christa Danielson, M.D., Joseph L. Lyon, M.D., Marlene Egger, Ph.D. and Gerald K. Goodenough, M.D. concluded from this study that "We found a small but significant increase in the risk of hip fracture in both men and women exposed to artificial fluoridation at 1 ppm, suggesting that low levels of fluoride may increase the risk of hip fracture in the elderly¹⁰." The relative risk of hip fracture in the higher fluoride group, over the lower fluoride group, was 27% greater for women, and 41%

greater for men. John R. Lee, M.D. concluded from the Utah study that "Fluoride is toxic to bones and increases risk of fracture at all levels of exposure including fluoridation at 1 ppm. Regardless of any other consideration, this is reason enough to discontinue fluoridation immediately⁴⁰."

There have been four additional studies in recent years that demonstrate an increased incidence of hip fractures for elderly people who live in fluoridated areas¹¹. Jacobsen (USA), Cooper (UK) and Colquhoun (New Zealand) all state that increased fracture of the hip (proximal femur) has occurred since the advent of fluoridation¹². Colquhoun says, "I find it astonishing therefore that, at a time when women's hip fractures in New Zealand are reaching epidemic proportions, health boards are still claiming that fluoridated water is perfectly safe¹²."

According to John R. Lee, M.D., there have been "seven studies showing a positive correlation of fluoridation with increased hip fracture incidence and not one acceptable study showing the contrary⁴¹."

Red Blood Cells

According to Richard G. Foulkes, B.A., M.D., quoting D.S. Kumari¹⁴, "Severe skeletal fluorosis occurs in India where, in some villages, the residents are exposed to drinking water with a fluoride content of 7.2 to 10.7 ppm. It has been found that the fluoride is accumulated in bone and that this accumulated fluoride is associated with an adverse effect on red blood cells¹."

Cancer

In an alarming report from the New Jersey Health Department, dated 11/8/92, it was shown that osteosarcoma was found in males under age 20 to be 50% higher in New Jersey municipalities serviced with artificially fluoridated drinking water, than their non-fluoridated counterparts³.

"In the three most heavily fluoridated communities, an almost sevenfold increase in osteosarcoma was found in young males between 10 years and 19 years of age." John Lee, M.D., said, "I can think of no other agent with this degree of risk which is mandated by the Public Health Service to be added to our food or water³."

John Yiamouyiannis, Ph.D., says¹⁷, "In 1963, Drs. Herskowitz and Norton from St. Louis University showed that increasing levels of fluoride increased the incidence of melanotic tumors in fruit flies. In 1965, Drs. Taylor and Taylor from the University of Texas at Austin found that fluoride in the drinking water at levels of one-half to one part per million increased tumor growth rate in mice by 15-25%. In 1984, Drs. Tsutsue and co-workers from the Nippon Dental university were able to transform normal cells into cancer cells merely by exposure of the normal cells to fluoride.

"It is generally agreed that the ability of a substance to cause genetic damage is a warning of its possible cancer-causing effects. Fluoride has been shown to cause genetic damage by researchers from Texas A & M University, the University of Missouri, Columbia University, and the National Institute of Environmental Health Sciences -- as well as by researchers from the Central laboratory for Mutagenicity Testing (W. Germany), the Russian Research Institute for Industrial Health and Occupational Diseases, the Pomerian Medical Academy (Poland), the Kunming Institute of Zoology (People's Republic of China), the Nippon Dental University, Tokyo (Japan), and others. The University of Missouri study showed that as little as one part per million fluoride in the drinking water resulted in genetic damage.

"In 1977, epidemiological studies by Dr. Dean Burk, former head of the Cytochemistry Section of the National Cancer Institute, and myself were the subject of full-scale Congressional Hearings. Our studies showed that fluoridation was linked to about 10,000 cancer deaths yearly. During the hearings, U.S. Public Health Service

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officials (the U.S. Public Health Service is the world's leading promoter of fluoridation) claimed that our results were due to changes in the age, race and sex composition of the populations examined. We were able to show that these officials had made mathematical errors and had left out 80-90% of the data. When these errors and omissions were corrected their very own method confirmed that 10,000 excess cancer deaths yearly were linked to water fluoridation. (In three out of four court cases tried since 1977, the courts ruled that the preponderance of the evidence indicates that fluoridation results in an increase in cancer death rate.)

"The Congressional Hearings also revealed that U.S. Public Health Service officials sent their erroneous and omissive data to scientists in Britain who were told by U.S. Public Health Service to publish it as if it were their own and to pretend that they had come up with the same results independently.

"As a result of these hearings, Congress mandated that U.S. Public Health Service conduct animal studies to determine if they could find whether or not fluoride caused cancer under laboratory conditions. These tests were designed to determine whether or not water fluoridation results in an increase in human cancer risk. They were conducted by the National Toxicology Program (NTP) under the auspices of the U.S. Public Health Service. Special attention was given to oral, liver, and bone cancers¹⁵. Scheduled for completion by 1980, it was not until 1990 that the results were reluctantly released.

"Analysis of the results in rats shows that (a) precancerous changes occurred in oral squamous cells as a result of increasing levels of fluoride in the drinking water. (Late last year, I obtained through the Freedom of Information Act, 'carcinogenicity studies with sodium fluoride performed by Proctor and Gamble' which had been submitted to, but covered up by, the U.S. Public Health Service for 4 years. Dose-dependent increases were observed in every parameter tested, including squamous cell metaplasias. These results appeared in the February 22, 1990 issue of the *Medical Tribune*.) (b) there was an increase in the incidence of tumors and cancers in oral squamous cells as a result of increasing levels of fluoride in the drinking water, (c) a rare form of cancer (osteosarcoma) occurred only in animals with fluoride in the drinking water, and (d) there was an increase in the incidence of thyroid follicular cell tumors as a result of increasing levels of fluoride in the drinking water. Analysis of the results in mice shows that (e) a rare form of liver cancer (hepatocholangiocarcinoma) occurred only in animals with fluoride in the drinking water.

"In the National Toxicology Program (NTP) study, higher doses of fluoride were given to compensate for (1) the limited number of animals used, (2) the relatively short time of their exposure to fluoride, and (3) the fact that 'On a body weight basis, man is generally more vulnerable than the experimental animal, probably by a factor of 6-12'¹⁶. The doses of fluoride that were linked to cancer in this study were only 1/10th to 1/50th of the amount used to produce cancer by benzene.

"In-depth analysis of the National Toxicology Program (NTP) study shows that the cancer-causing potential of fluoride is not limited to one type of cancer. Furthermore, the types of cancer caused by fluoride in rats and mice may be entirely different than the types of cancer caused by that same substance in humans. Thus, if fluoride had caused cancer in the tails of all the rats and mice, this would be compelling evidence that fluoride was carcinogenic. However, you wouldn't do a follow-up study in humans to see if fluoride caused cancer in human tails. The main point is that fluoride is a carcinogen and that the Burk-Yiamouyiannis study showing a link between fluoridation and cancer has been confirmed."

"... Dr. William Marcus, chief toxicologist for the Environmental Protection Agency's (EPA) drinking water program and Robert Carton, Ph.D., an environmental scientist in the EPA's Office of Toxic Substances, and local president of the National Federation of Employ-

ees, . . . publicly accused the Public Health Service (PHS) of underplaying the dangers of fluoride¹¹."

Dr. Carton said that EPA's 1985 review was "a shoddy job, bordering on scientific fraud. You could call it a coverup²⁷."

When Dr. Marcus charged that "In almost all instances, the Battelle board certified pathologists's findings [on the carcinogenicity of fluoride] were down-graded!" by NTP, so that the use of fluoridation would be politically upheld, he was commanded by his EPA superiors not to speak out. He was in danger of being fired for telling scientific truth, but fortunately Dr. Marcus was not . . . alone in his forthcoming court suit against the EPA, as The National Federation of Federal Employees was said to be entering a suit against EPA¹.

The Battelle report that NTP, and the EPA attempted to distort, or downgrade, for political reasons, according to Dr. Lee, ". . . indicated that the animals were awash with illness and abnormalities of all kinds including kidney disease, liver disease, blood diseases, tumors, and cancer. In particular, the fluoridated groups showed thyroid adenomas, dysplasias of the oral and nasal mucosa, liver cancer of a very special rare type (hepatocholangiocarcinoma), and the osteosarcomas of which one appeared in a mid-range male rat and four appeared in high-range male rats. Female rats exhibited dose-related osteosclerosis and all fluoridated rodents developed dental fluorosis. It is important to know that the bone fluoride level of the 'high range' rats was no higher than that which occurs in human bones after 15-20 years in fluoridated communities. Since fluoride is cumulative in bone, the so-called 'high range' rats had achieved in 2 years only what human bones achieve in 15-20 years. [That] is, the tissue level of fluoride was *no different* than what humans will experience¹."

John R. Lee, M.D., an internationally recognized authority on fluoridation stated "that the strength of the fluoride-cancer link study by NTP is greater than that which resulted in the banning of Alar, Red Dye #3, or Cyclamate²⁶."

Neurotoxicity: Effects on the Brain

According to Dr. John Yiamouyiannis, there is an ongoing profound increase in Alzheimer's disease, migraine, and other neuropsychiatric disorders. The ingress of fluoride into the brain can be influenced by altered permeability of the blood-brain barrier; the inhibition of acetylcholinesterase activity by fluoride has been reported to be 61% by as little as 1 ppm; and the adverse effects of long-term fluoride exposure include headaches, ringing in the ears, depression, confusion, drowsiness, visual disturbances, severe fatigue, and loss of memory²³.

Court Suits

Besides the threat of two possible suits against the EPA, there is a class action suit by 35-40 dentists against the American Dental Association (ADA), its committees and affiliated organizations in the Superior Court of the District of Columbia for the ADA's "acting contrary to the ethical precepts in a number of areas, [including] the promotion of fluoridation, the pressuring of the EDP to raise the Maximum Containment Level (MCL) [from 1 ppm to 4 ppm], and failure to distribute to its members and to the general public, literature regarding the significant possibility of adverse effects of fluoridation⁹ and the use of dental amalgam [which is another unhealthy practice.]¹."

"Dr. David Kennedy, one of these dentists, says: 'I think it is criminal to expose large groups of the population to toxic substances without any evidence of safety. The proponents of toxic dentistry claim that you can't prove the agent caused a specific problem. . . . It is not our responsibility to prove that a poison is not a poison. It is the responsibility of the person who applies the poison to prove that it is harmless. . . .'¹¹"

In Canada, a suit has been filed by a mother and her 7 year-old child, against the Calgary Board of Health and others for dental

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	Tacoma	Seattle	Calgary	Campbell River	Average
Total Population	250,400	1,000,000	593,000	25,000	
Est. Pop. Under 11 yrs (20% pop.)	50,080	200,000	118,600	5,000	
Est. Pop. 3-10 yrs (14% pop.)	35,056	140,000	83,020	3,500	
Fluoridation Chemical(s)	Sod F+Lime	H Fluosilicic	H Fluosilic	H Fluosilic	
Flow: Gals F Water/Day	72,000,000	135,000,000	89,000,000	300,000	
Annual Cost of Chemical(s)	\$125,000	\$236,000	\$200,000	\$12,696	
Per Capita Cost/Year (Annual Cost/Total Pop.)	\$0.49	\$0.23	\$0.33	\$0.50	\$0.38
Gals Consumed/Day by Children Under 11 years at 1 Pint per Child per Day	6,260	25,000	14,825	625	
Percent of Total Fluorine Water Used by Children Under 11 years	0.008%	0.018%	0.016%	0.20%	0.06%
Percent of Water Not Used by Children Under 11 years	99.99%	99.98%	99.98%	99.80%	99.94%
Annual Cost Fluorine Chemical Used by Children Under 11 years	\$10.00	\$42.48	\$32.00	\$25.39	
Amount Received by Children Under 11 years/1,000 Spent for Chemicals	\$0.08	\$0.18	\$0.16	\$2.00	\$0.60

Sources: Costs of chemicals, gals. flow, pop. served from water works in Tacoma, Seattle and Campbell River. Calgary costs, amount of chemicals used from D.B. Hill³⁹ flow estimated from chemicals used to achieve optimal concentration. Population for children estimated as % total population as follows: under 11 years, 20%; 3-10 years, 14%; poverty level, 6% estimated from 1990 U.S. census for Tacoma city. Calgary population estimated from current published descriptive data. Costs in U.S. dollars

Table 1
Fluoridation: Four Cities 1992
(Canadian Exchange 15%)

American Dental Association (ADA)
(with American Academy of Pediatrics modification to start at 2 wks³⁷)

Daily Dose:

2 weeks to 2 years 0.25 mg (1/4 tablet)
2 years to 3 years 0.5 mg (1/2 tablet)
3 years to 10 years 1.0 mg (1 tablet)
"Ten Year Lifetime Cost" @ \$5.72/1,000 tablets = \$17.74

Canadian Dental Association (CDA)

Recommendation (1992)³⁸

Daily Dose:

Ages 3, 4, 5, 0.25 mg (1/4 tablet)
6 years to 10 years 1.0 mg (1 tablet)
"Ten Year Lifetime Cost" @ \$5.72/1,000 tablets = \$12.00

Table 2
Ten year "Lifetime Cost" of Children where Fluoride Level is Less than 0.3 ppm. Using ADA and CDA Recommendations and Oral Tablets (1 mg F) at an Estimated Cost of \$5.72 per thousand

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fluorosis associated with the use of fluoride drops and tablets¹.

Dominic Smith died of over-dose of fluoride caused by a broken water pump that allowed the water level to decrease while the fluoride injector continued to add fluoride to the water supply. Thirty other villagers also became sick with symptoms similar to Smith's. People suffered nausea, vomiting, diarrhea and fatigue and some also had neurological symptoms such as tingling hands and arms. As these symptoms appeared, people drank more of the water to satisfy an increasing thirst.

Dominic's sister, too, nearly died.

"Officials of Middletown, MD warned residents by radio in November, 1993 not to drink or cook with city water due to high fluoride levels. Malfunctioning fluoridation equipment caused excessive levels of 70 parts per million (ppm) in the distribution system. This is 70 times the normal level and almost 18 times the level considered safe by EPA.

"Based on other fluoridation accidents, the 70 ppm of fluoride is sufficient to cause vomiting, diarrhea, skin rashes, fever, and other effects. In 1986, a fluoridation accident in New Haven (North Branford), Connecticut, resulted in the public receiving water with 51 ppm fluoride for twelve hours. A health survey, conducted four days later on 312 persons, determined that 55 of those experienced symptoms of fluoride poisoning which lasted from 1-60 hours⁴⁴."

Robert Carnton, Ph.D., scientist and editor of the newsletter *The Fluoride Report*, pointed out that toxic spills of fluoride in drinking water are never publicized by fluoridation promotion agencies, the Public Health Service, the National Institute for Dental Research and the Center for Disease Control⁴⁴."

A partial list of such accidents includes:

- Poplarville, MS, August 1993: 40 poisoned; 15 sought treatment at hospital⁴⁴.
- Galesburg, IL, August 1993: Delivery tank leaked 15-20 gallons on city street⁴⁴.
- Chicago, IL, July 1993: 3 dialysis patients died; 5 additional patients allergic (toxic) reaction⁴⁴.
- Kodiak, AK, May 1993: Residents were warned by phone and public radio of high fluoride levels, and danger becomes higher with boiling of water, concentrating fluoride further⁴⁴.
- Sarnia, Ontario, January 1993; Fluoride at 13 ppm. Fail-safe system had failed to shut down⁴⁴.
- Marin County, California; Pump malfunction allowed too much fluoride in the Bon Tempe treatment plant, so bad water diverted to Phoenix Lake, elevating lake surface by more than two inches, forcing some water over the spillway⁴⁴.
- Danvers, IL, June 1992; Pump malfunctioned; flushed water through fire hydrants onto city streets⁴⁴.
- Hoopper Bay, AK; May 1992; 1 death, 260 poisoned, 1 airlifted to hospital in critical condition. First diagnoses speculated that residents had the "flu." Widow of deceased now suing for \$3 million⁴⁴.
- Rice Lake, WI, February 1982; Residents vomiting; Centers for Disease Control stated that 150 water consumers potentially at risk. Pump overfed fluoride for two days, thought to have reached 20 ppm⁴⁴.
- Benton Harbor, MI, December 1991; Faulty pump allowed about 900 gallons of hydrofluosilicic acid to leak into a chemical storage building at the water plant. So corrosive that it ate through more than two inches of concrete⁴⁴.
- Calgary, Alberta, Canada, September 1991: Leak of seven liters of fluoride sent two water treatment personnel to hospital for oxygen after breathing fluoride fumes⁴⁴.
- Burlington, NC, September 1991; 4,000 gallons of a 6,000 gallon fiberglass fluoride tank ruptured⁴⁴.
- Portage, MI, July 1991; About 40 children with abdominal

pains, sickness, vomiting and diarrhea at an arts and crafts show at school. One of the city's pumps had failed. Fluoride levels reached 92 ppm⁴⁴.

- St. Louis, MO, November 1990; 500 gallons of hydrofluosilicic acid leaked from ruptured pipe⁴⁴.
- Westby, WI, October 1990; 4 families suffered a week of diarrhea, upset stomach and burning throats. Malfunctioning equipment caused fluoride to surge to 150 ppm. Fluoride eroded copper pipes in area homes⁴⁴.
- Schenectady, NY, January 1988; 2,000 gallon spill completely destroyed fluoridation facility⁴⁴.
- New Haven (North Branford), CT, March 1986; Of the 312 persons interviewed 18% had symptoms of abdominal cramping, nausea, headache, diarrhea, vomiting, diaphoresis (profuse sweating), and fever. There were rashes and irritation from bathing and washing dishes. Fluoride peaked at 51 ppm. It leached copper pipes⁴⁴.
- Annapolis, MD, November 1979; 1 death in a dialysis patient, other dialysis patients suffered a cardiac arrest (resuscitated), nausea, hypotension, chest pain, diarrhea, itching, flushing, vomiting (blood tinged), difficulty breathing, profuse sweating, weakness, numbness and stomach cramping. Those not on dialysis reported nausea, headache, cramps, diarrhea and dizziness⁴⁴.

Wife of the dialysis patient who died sued and settled out of court. Pepsi Cola sued for \$1.6 million for damage to product. Waterworks personnel also sued, then demoted and had payroll deductions⁴⁴.

Even though state and county health officials learned of the spill nine days after it occurred, no public announcement was made and the City Council was not told of the situation for six more days⁴⁴.

So, in addition to increasing perception of liability for adding fluoride to municipal water systems based on acceptance of faulty scientific analysis, and authoritarian pronouncements from those who have never studied the literature and are not themselves scientists, there is also a constant threat of litigation from catastrophic incidents. However, the persistent threat to each person consuming a steady diet of fluoride in their public drinking water looms the larger.

Silicon implants were said to be safe, until, many years later, thousands of women were sickened or disfigured by the effects of leaking silicon. This resulted in multi-billion dollar litigation that has been consistently won in the plaintiff's favor, and even threatens to bankrupt insurance companies. [See "Silicon Arthritis and Related Diseases," <http://www.arthritistrust.org>.]

"In the 1920's, senior public health officials and the American Public Health Association endorsed lead gasoline as a 'Gift of God and perfectly safe'⁵¹.

It is not too difficult to envision a like situation with fluoride where, because of the unknowledgeable and religious conviction of public health department employees, fluoride public water supplementation has become nation-wide spread. Court suits usually begin here and there, scattered, and as objective judges study all the evidence, they rule in favor of plaintiffs. Then the filing of suits widen, until at last the public is faced with truth -- and also multi-billion dollar damages that must come from each citizen's pocketbook.

According to William Campbell Douglass²⁹, "A study from Britain reported that the difference between a safe dose of fluoride and a harmful dose is 'impressively small'. Danish scientists concurred in a report in which they said: 'There is no magic borderland' between a safe and a toxic dose.

"The most shocking report comes from a former chief dental officer in Auckland, Australia: 'When you are indoctrinated with a particular belief for a lifetime, it is hard to break out. But I examined the figures in my own city of Auckland and found that decay was less in the non-fluoridated than the fluoridated parts.

"The figures that had been given to the public had been shock-

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ingly doctored. . . . I pointed out these discrepancies to a conference of senior dental officers of the New Zealand Department of Health. There was simply a stony silence²⁹."

What Cost Savings?

One argument in favor of fluoridating the public water supply, is that parents will have less cost in repairing their children's cavities. This has already been debunked in proper scientific studies at every level. However, let's look at potential cost savings.

According to Ralph S. Blois²⁰, The National Preventive Dentistry Demonstration Program (sponsored by the American Fund for Dental Health, a pro-fluoride group) conducted a study of 30,000 school-age children. The study ran from 1977 through 1987, and was the largest ever conducted. Some of the children were on sealants, some on fluoride water, some on toothpastes, and so on, and some received the whole range of "protection."

Cost of 'medication' was \$55 per child per year with a resulting saving of only two tooth surfaces over a four year span. Equivalent children, who were non-fluoride children, had one fewer tooth surface decay over the four year span at a cost of \$1 per child per year. "To cut through the garbage, what it says is that in four years the test showed that children having fluoride had saved only 2 tooth surfaces (at a cost of \$55X4 = \$220) while non-fluoridated children saved only one tooth surface (cost \$4). For Pete's sake -- fluoride claims to produce one less decay in four years than non-fluoride. That is not at all statistically significant. Yet nobody seems to have picked up on this.

"Of those children who had fluoride mouth wash -- the study laments the poor performance of mouth washes. Here over 4 years, the amount of tooth surfaces saved was less than one. The report states, 'On the basis of our results, we can't make any strong argument that fluoride mouthrinse programs are effective enough to be recommended and in fluoridated communities they are not merited at all'²⁰."

We were promised, with the addition of fluoride to public water systems, that tooth decay would decrease by 60 percent. Later studies revised this figure to somewhere between 20 and 40 percent. New evidence from New Zealand and Canada suggest that with the use of fluoride, tooth decay is higher¹¹.

Argumentation in favor of fluoridating municipal water supplies usually starts out with "How could anyone be against water fluoridation? It is the most cost-effective public health measure in history. It costs 50 cents per year to protect a child from what is, perhaps, the most common disease in the world, and the benefits last a lifetime."

"This quotation was taken from an editorial 'Let's Get With It,' written by Richard J. Mielke, D.M.D. in the Washington state Dental Association *News* of April 1993 to praise its members' support of a Bill [which lost] to empower Public Utility Districts to fluoridate, an effort that failed a second time in April 1993. This statement is similar to that found in *Fluoridation Facts*, the official pamphlet of the American Dental Association (ADA). It is based on the amount paid per year on behalf of each person in the population served by a water district to purchase fluoride chemicals. This is an average of 35-40 cents in the ADA document³⁶."

Assuming that fluoride addition to municipal water supplies is both safe and effective -- which scientific evidence says it is not -- then exactly what are the savings?

Richard G. Foulkes, B.A., M.D. has detailed the presumed savings by comparing the cost of supplying fluoride tablets for children as opposed to the tax load placed on communities to fluoridate the water in Tables 1 and 2. According to these calculations, on average, "for every \$1,000 spent by the taxpayer for fluoride chemicals, less than 50 cents goes toward purchase of fluoride for children. Apparently, according to Tables 1 and 2, the ten-year lifetime cost to supply an individual child with fluoride tablets, for the purpose of preventing teeth caries, is somewhere between \$12 and \$18. The

remainder [of fluoride] expenditures is used to purchase a pollutant such as industrial grade sodium fluoride or hydrofluosilicic acid to flush through the community water system into the environment³⁶."

To place Foulkes' analysis in further perspective, In Tacoma, WA, \$125,000 for chemicals provides \$10 for dubious protection of all its children for one year.

Considering the true cost of fluoridation, one wonders if children's caries are the primary reason for political hue and cry in favor of fluoridating city municipalities, or is it a means of disposing of industrial waste at taxpayer's expense, and also a way around the enforcement of pollution laws? David B. Hill, P.Eng., Professor of Computer Science at the University of Calgary, said, "The current estimated annual running costs of water fluoridation in Calgary are \$230,000 a year just for the chemicals, and 99.9% of this will not be drunk, but will be flushed straight down the city sewers. The effect will be to deposit roughly 150 tons of fluoride into the Bow River and environment each year. The Reynolds Aluminum Company of Canada Ltd. in Baie-Comeau, Quebec, is only legally allowed to discharge 36.5 tons of fluoride into the St. Lawrence River each year . . . under pollution control regulations³⁶."

Summary

Assuming that fluoride added to public water systems was both safe and effective, it obviously is far, far from a cost effective way of preventing caries.

Assuming that 1 ppm of fluoride added to public water systems was safe and that it did reduce caries, "Fluoridating the water supply makes a fundamentally simplistic assumption: that all the people drinking it, no matter what their size, age or state of health, require the same fluoride level¹¹."

No respectable scientist, biologist, or medical doctor would agree with this premise.

"Fluoride also accumulates in the body from a great number of natural sources¹¹"

Respectable scientists recognize that other sources of fluoride are tea, industrial air emissions, foodstuffs grown, manufactured or cooked in fluoridated areas, and even teflon cooking utensils.

An over-accumulation (even assuming the alleged safety of 1 ppm) is clearly damaging to health.

"Dentists routinely recommend fluoride tablets for children, never testing to see whether fluoride levels are actually low and without being trained to recognize existing fluoride damage¹¹."

According to a Danish study of 56 children regularly taking fluoride tablets, "almost half showed dental fluorosis to some degree²¹." These tablets can also kill, according to reports on the case of a 3-year-old boy who collapsed and died after consuming the equivalent of 16 mg/kg body weight of fluoride tablets²².

In 1991 tests conducted by Dr. Peter Mansfield discovered that 1 in 4 people were in danger of overconsuming fluoride¹¹.

"The great problem with overconsumption of fluoride is that only around half of that congested is excreted by the body in healthy adults.

"Children, diabetics or those with kidney problems may retain up to two-thirds of the fluoride they take in¹¹."

According to Gibson's research, "It is, . . . , more likely that fluoride affects cellular metabolism at all concentrations, but that in some [human] systems this effect is not detectable until doses in excess of 10 micrograms per millilitre are reached, . . . The present series of experiments clearly demonstrate effects of fluoride as low as 0.5 micrograms per millilitre¹¹."

According to Richard G. Foulkes, B.A., M.A., "There may have been some grounds in 1973 for accepting the hypothesis that fluoridated water is associated with reduction in dental caries and that water artificially fluoridated to the 'optimal' level was safe.

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"Public Health officials at all levels pushed actively for fluoridation. The Dental and Medical associations had moved from opposition to a position of support. The literature supporting the opposite view was difficult to obtain. But, . . . , there was evidence sufficient to suggest caution.

"The situation appears different in 1992. The fluoridation of water supplies as a viable concept is at the point of collapse. The effectiveness of fluoride, especially as an additive to community water supplies, to reduce dental caries is dubious. The idea that this well-known industrial toxin is safe at 1 ppm in the drinking water has been struck a blow; perhaps a mortal one.

"[Pennsylvania] Justice Flaherty . . . continued in his letter [to New Zealand]: 'Prior to my hearing this case, I gave the matter of fluoridation little, if any, thought. But, I received quite an education and noted that the proponents of fluoridation do nothing more than impune the objectivity of those who oppose fluoridation. I seriously believe that few responsible people have objectively reviewed the evidence'.

"Canada, the USA, and the few countries left that have not discontinued the fluoridation of community water supplies should join those countries who have discontinued the process or who never did fluoridate. A list of such countries includes West Germany, the Netherlands, Belgium, Finland, Sweden, Norway, Denmark, Japan¹, and France⁴⁵.

Dr. Geoffrey Smith asks, "If artificial fluoridation is so effective, then why have scientifically advanced countries [such as the above] totally rejected the measure? There is absolutely no credible evidence that children's teeth in those countries are any worse than those in Australia, Canada, Ireland, New Zealand and the United States⁴⁵."

True Causes of Declining Dental Caries

"If one were to argue that swallowing fluoridated water leads eventually to higher fluoride levels in dental enamel, one would then have to explain away the fact that dental enamel fluoride concentration in children from fluoridated communities in the U.S. is no different than the fluoride concentration in teeth of children from non-fluoridated communities."

More than likely, the true causes for decrease in dental caries are the following factors, given by Dr. Lee.

- Better nutrition
- Less sugar intake (e.g., use of artificial sweeteners in kids' diets).
- Better dental hygiene (tooth brushing)
- Rising immunity to *Streptococcus mutans*, the plaque germ responsible for the conversion of simple dietary starches into acids that dissolve enamel

• General use of antibiotics bacteriostatic or bacteriocidal to *Streptococcus mutans*.

• Use of fluoridated toothpaste. This latter factor does not vindicate water fluoridation. The concentration in toothpaste (which is applied directly to dental enamel) is 1000-1500 ppm whereas drinking water (which passes the teeth into the gut and then excreted in urine) contains only 1 ppm fluoride. The higher concentration in toothpaste is sufficient to kill or seriously impair the enzyme processes of *Streptococcus mutans* plaque germs, whereas the low concentration in drinking water is simply ineffective⁴².

More than likely safer substitutes are available for the same teeth brushing purpose, that will serve to kill *Streptococcus mutans*.

Gerard P. Judd, Ph.D.⁴⁶ summarizes the actual and indicated dangers from forceful feeding of fluoride as follows:

• Slightly poorer teeth (more Decay, Missing Teeth, Fillings), with egg-shell white fluorosis and brittleness⁴⁶. According to Professor Cornelius Steelink, Department of Chemistry at the University of Arizona, who headed up a subcommittee for study of addition of fluoride to the Tucson, AZ water supply, their study showed that "

. . . the more fluoride a child drank, the more cavities appeared in the teeth⁴⁷."

- More brittle bones in the aged⁴⁶;
- Destruction of at least 60 out of 63 enzymes, including cytochrome C, cholinesterase and others handling oxygen⁴⁶;
- Genetic change, both in the sperm and other cells⁴⁶;
- Dramatic heart death increase in Antioigo, Wisconsin, where a long-term study was made⁴⁶;
- Down's Syndrome increase of 250%⁴⁶;
- Probable major cause of Sudden Infant Death Syndrome (SIDS) and Chronic Fatigue Syndrome (CFS), since allergic (toxic) symptoms the same⁴⁶;
- Infant mortality increase: for Washington, D.C. Blacks 4 times, for Whites 3 times (48 years of fluoridation) and for the average U.S. population 1.4 times⁴⁶;
- Infant birth defects increased 3 times in Chile during its experiment with fluoridation⁴⁶;
- 39% increase in cancers overall, with 80% for rectal cancer in the U.S. after 33 years⁴⁶;
- Fluoride accumulates about 50% daily in the bones and soft tissue⁴⁶;
- Miscarriages and spontaneous abortions increase⁴⁶;
- 50 side effects: arthritis, immobility, blindness, bladder and urinary tract effect, blood loss in kidneys, uterus, and vagina, bone pain, bruises, cancer increases, Chizzola macula, collapsing legs, diarrhea, dizziness, dry mouth; 8 allergies proven by double blind tests by Moolenburgh using 12 physicians and 60 patients, Down's Syndrome increase with 70% cataracts, epileptic seizures, fatigue, weakness, loss in strength, fluorosis, genetic chromosome change, severe headaches, large heart death increase, hemorrhages in the skin, incoherence, inner ear disorder, intestinal cramps, distention and constipation, itching, mental depression, mental concentration inability, nasal disease, nausea, nystagmus (involuntary movement of eyes), pain in muscles, intestines, bowels, head, spine, and stomach, polyuria, scotoma, seizures, spastic bowels, stomach bloat, cramps and gas, stomatitis (lip cracks), tendon-ligament calcification, thyroid calcification, tinnitus, ulcers in the mouth, skin eruption around the mouth, vision blurring, vomiting and weight loss⁴⁶.
- Possibly Alzheimers, Multiple Sclerosis (MS) and other viral disease are made worse due to antibody destruction⁴⁶.

How to Avoid Fluorosis

Know Truth

According to Foulkes, "Many of us know that senior scientists working for the U.S. Environmental Protection Agency have been trying for more than a decade to persuade their superiors to lower the Maximum Contaminant Level (MCL) for fluoride to levels that would prevent dental fluorosis (0.1-0.2 ppm) only to be overruled by successive Surgeons General and [to wrongly] have the level increased to 4 ppm 'to prevent crippling skeletal fluorosis'³¹."

Robert J. Carton, Ph.D. was an environmental scientist with the U.S. Army, and from September 1972 until May 1992, he spent 15 years in the Office of Toxic Substances with the EPA, managing risk assessments. For two years he was responsible for writing regulations under the Federal Water Pollution Control Act. He was also program manager for compliance of new pollution sources with the National Environmental Policy Act³⁴.

According to Robert J. Carton, Ph.D., who testified under sworn testimony to the court in Manitowoc, Wisconsin during litigation on the city's fluoridation of water, the EPA officials conducted scientific fraud when they raised the standards from 1 Recommended Maximum Contaminant Level (RMCL) for fluoridated drinking water, to 4 RMCL. Carton³⁵ testified that:

- The fluoride in drinking water standard, . . . , published by the

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EPA in the *Federal Register* on Nov. 14, 1985, is a classic case of political interference with science.

- The regulation is a fraudulent statement by the Federal government that 4 mg/l of fluoride in drinking water is safe with an adequate margin.

- There is evidence that critical information in the scientific and technical support documents used to develop the standard were falsified by the Department of Health and Human Services and the EPA to protect a long-standing public health policy.

- EPA professionals were never asked to conduct a thorough, independent analysis of the fluoride literature. Instead, their credentials were used to give the appearance of scientific credibility. They were used to support the predetermined conclusion that 4 mg/l of fluoride in drinking water was safe.

- The EPA management ignored the requirements of the law to protect sensitive individuals such as children, diabetics or people with kidney impairment. Contrary to law, they made the criteria for considering health data so stringent that reasonable concerns for safety were eliminated. Data showing positive correlation between fluoride exposure and genetic effects in almost all laboratory tests were discounted.

- EPA management based its standard on only one health effect: crippling skeletal fluorosis. They ignored data showing that healthy individuals were at risk of developing crippling skeletal fluorosis if these individuals happened to drink large quantities of water at the presumed "safe" level of 4 mg/l. EPA's own data showed that some people drink as much as 5.5 liters per day. If these people ingested this amount of water containing 4 mg/l of fluoride, they would receive a daily dose of 22 mg. This exceeds the minimum dose necessary to cause crippling skeletal fluorosis, or "20 mg/day for 20 years" as stated by the EPA and Public Health Service.

- Most unsettling is the fact that the EPA and the National Academy of Sciences cannot document the scientific basis for the 20 mg/day threshold established by the EPA. In a recent series of letters between the National Academy of Sciences, Ms. Darlene Sherrel, and Sen. Graham of Florida, the National Academy of Sciences was forced to admit that it could *not* document the derivation of the chronic effect level for crippling skeletal fluorosis, which the single health effect upon which the fluoride in drinking water standard is based. The threshold is probably lower.

- There is evidence, ignored by the EPA, in a study by Dr. Geoffrey Smith, that exposure to fluoride at 1 mg/l in drinking water over a long period of time may calcify ligaments and tendons, causing arthritic pains, and may be responsible for the alarming increase in cases of repetitive stress injury.

- EPA management relied upon a report from the Surgeon General which they knew was false. This report claimed to represent conclusions of an expert panel (on which the EPA was present as an observer) when, in fact, the concerns of this panel for the effects of fluoride on the bones of children, for its effects on the heart, for dental fluorosis, and for the overall lack of scientific data on the effects of fluoride in U.S. drinking water *were deleted*. These changes were made in the final report without the knowledge or approval of the expert panel.

- The EPA accepted the falsified report from the Surgeon General's office and asked a contractor to turn this into an "assessment." The contractor dutifully collected only literature that supported the report. The report was submitted for public comment, but was never altered to incorporate the volumes of information sent in by world class experts. Any opinions contrary to the report were dismissed. The result is actually a "Draft" stamped "Final."

- The apparent cover-up of fluoride risks within EPA prompted the EPA professionals' union, Local 2050 of the National Federation

of Federal Employees, to attempt to file an amicus brief in support of the Natural Resources Defense Council, who sued EPA in 1986 over the fluoride standard.

- EPA has also attempted to silence scientists who do not follow the party line. In 1992, EPA fired William L. Marcus, Ph.D. from his job as senior toxicologist in the Office of Drinking Water, EPA. Judge David A. Clarke, Jr., declared in his decision on this case on December 3, 1992, that "the reasons given for Dr. Marcus' firing were a pretext . . . his employment was terminated because he publicly questioned and opposed EPA's fluoride policy." Judge Clark ordered Dr. Marcus to be reinstated and provided with back pay, fringe benefits and interest, attorneys fees, and paid \$50,000 in compensatory damages. It was said that every time Dr. Marcus testified it cost the polluting companies a couple of million dollars. It was reported to have cost Dow \$8 million when he testified against this chemical giant⁴³.

- Despite knowledge by the EPA that dental fluorosis is considered a visible sign that potentially destructive effects of fluoride are also occurring in bone, and even though aware that the report of the Surgeon General's expert panel had been altered, nevertheless they followed the altered version and declared in 1985 that dental fluorosis was not an adverse health effect.

- Transcripts obtained of the closed-door testimony by the expert panel, obtained under the Freedom of Information Act, showed that the panel had in fact voted to declare dental fluorosis an adverse health effect. Their declaration was doctored by unknown individuals to achieve a political end.

There's an obvious political problem that must be solved, which is to get the Environmental Protection Agency, and other public agencies, to do the job for which our taxes pay. Even more basic, is that one can join the growing throng of those who are now aware that scientific studies, worldwide, demonstrate that fluoridation is damaging to health.

One example of the persistence of advocates of fluoridation was demonstrated in Eugene, Oregon³⁴:

- In 1956, the folks of Eugene were asked to approve water fluoridation. The civic leaders felt it was important and all the pressure and persistence we've come to know from the fluoridation lobby was brought to bear. The folks of Eugene said "no."

- The issue was placed on the ballot again in 1958. Despite the protagonism by the civic leaders the folks voted "no" a second time.

- The next time, in a 1964 election, the proponents of the poison won and the city of Eugene fluoridated its water.

- By September 28, 1965 another election was forced by those who objected to dripping the toxic chemical into the water supply and they voted fluoride out, once and for all -- or so they thought.

- A year later the power of the fluoride lobby had the issue back on the ballot a fifth time. In a heated and close race, the fluoridation advocates won and the city water again felt the drip, drip, drip of fluoride compounds.

- The people of Eugene rose up even more determined and petitions circulated for another referendum on the issue. On June 28, 1977 fluoridation was repealed by a vote of 9,804 to 5,580.

- Despite the almost two to one defeat, the city council declared they would be back with another ballot on the matter during the 1978 general election. However, the people had spoken and today the city of Eugene is fluoride free.

- City water treatment superintendent Mitch Postle told *Search for Health* that he removed the fluoridation equipment in 1978 and he's "glad."

- What seems to have been constantly overlooked by those advocating the poisoning of the water supply is that if folks want fluoride for their kid's teeth, they can always buy fluoride pills.

"On March 17, 1991, in Washington, D.C., . . . the Parent

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Teacher's Association (PTA) took a major step away from its long-held (1952) position in support of fluoridation of the water supplies. . . . PTA will seek to have its membership educated about the risks and benefits of aggregate fluoride exposure, and the appropriate use and ingestion of products containing fluoride."

A proposed bill that would have allowed public utilities in Washington state to fluoridate water was defeated in the Senate Energy and Utilities Committee in February 1992, by a coalition of those interested in safe and clean water²⁴.

In support of removing fluoridation from municipal systems, H.J. Roberts, M.D., says, ". . . elected officials who lack an adequate scientific and medical background must exercise *extreme* prudence and caution when voting on public water fluoridation, or continuing to do so.

"This issue transcends the important matter of freedom of choice. It involves exposing citizens to a toxic substance under the challenged guise of preventing dental caries. The problem is compounded by the absence of truly informed consent, and the [already] excessive fluoride intake by many persons in non-fluoridated areas.

"Elected individuals and their commissions also ought to anticipate criminal charges for 'practicing [medicine] without a license' if suit were to be brought by constituents for the fluoride-associated or -- aggravated medical disorders. . . ."²³

The late Dr. George Waldbott¹¹ listed the following symptoms, stating that their severity and duration will depend on an individual's age, nutritional status, environment, kidney function and susceptibility to allergies, and he also suggested various immediate fixes.

Symptoms

- Chronic fatigue not relieved by extra sleep or rest
- Headaches
- Dryness of throat and excessive water consumption
- Frequent need to urinate
- Aches and stiffness in muscles/bones
- Muscular weakness and spasms
- Gastrointestinal disturbances, including diarrhoea and constipation
- Pinkish-red or bluish-red spots on the skin, which fade after around a week
- Skin rash or itching after bathing
- Dizziness
- Visual disturbances

"The first sign of general systemic poisoning by fluoride is usually a mottled tooth, which turns gray and develops brown or black spots. The blemish is permanent and grows worse as exposure continues. After a time the molars begin to decay, then the gums and the mouth environment are affected. After mottling comes a bewildering variety of bodily aberrations, seldom diagnosed correctly because most physicians know almost nothing about chronic fluoride poisoning and therefore they don't look for it²⁸."

Suggestions

- If you are displaying what you believe are symptoms, have your fluoride levels tested.
- If you live in a fluoridated area, your only option is to use solely bottled water; or fit a reverse-osmosis water purifier in your home. You may also purchase a service which will deliver bottled mineral water and supply a dispenser.
- Reduce your intake of tea and soft drinks. Drink herbal tea made with non-fluoridated water instead. [Tea contains considerable fluoride, and soft drinks may have been made with city water that is fluoridated.]
- Switch to a non-fluoridated toothpaste. Never let children use "adult" fluoride toothpaste.
- Check your nutritional status. A poor diet will only increase

your susceptibility to symptoms of fluoride poisoning. Adequate levels of magnesium, zinc and iron will help your body counter the effects of fluoride.

- Watch your consumption of prepared foods, particularly frozen vegetables.
- Never use fluoridated water for baby formula (another good argument for breastfeeding.)

(Also see "Sodium Fluoride: The Obedience Drug," <http://www.arthritistrust.org>.)

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