A STATEMENT OF CONCERN ON FLUORIDATION

Understanding and appreciating the historical reasons for advocating fluoridation, the undersigned professionals now recognize valid concerns about its safety and about its impact on the environment. This Statement serves as a vehicle for expressing these concerns. However, it is not a position statement on fluoridation, nor does it commit the undersigned to any point of view other than what is stated clearly in this document.

A brief summary of recent events, reports, and research underlying our concerns, as well as a list of references, are supplementary to this document.

OUR MAJOR CONCERNS:

I. Environmental Concerns
   • Silicofluorides: unrefined industrial waste
     91% of Americans ingesting artificially fluoridated water are consuming silicofluorides\(^1\). This is a class of fluoridation chemicals that includes hydrofluosilicic acid and its salt form, sodium fluoroalkal. These chemicals are collected from the pollution scrubbers of the phosphate fertilizer industry. The scrubber liquors contain contaminants such as arsenic, lead, cadmium, mercury, and radioactive particles\(^2\), are legally regulated as toxic waste, and are prohibited from direct dispersal into the environment. Upon being sold (unrefined) to municipalities as fluoridating agents, these same substances are then considered a "product", allowing them to be dispensed through fluoridated municipal water systems to the very same ecosystems to which they could not be released directly. Sodium fluoride, used in the remaining municipalities, is also an industrial waste product that contains hazardous contaminants.

   • Scarcity of environmental impact studies
     This is of deep concern to us. Studies that do exist indicate damage to salmon and to plant ecosystems.\(^3\) It is significant that Canada’s water quality guideline to protect freshwater life is 0.12 ppm (parts per million).\(^3\)

   • 99.97% of fluoridated water is released directly into the environment at around 1ppm
     This water is NOT used for drinking or cooking.\(^4\)

II. Health Concerns
   • Absence of safety studies on silicofluorides
     When asked by the U.S. House Committee on Science for chronic toxicity test data on sodium fluoroalkal and hydrofluosilicic acid, Charles Fox of the EPA answered on June 23, 1999, “EPA was not able to identify chronic toxicity data on these chemicals”.\(^5\) Further, EPA’s National Risk Management Research Laboratory stated, on April 25, 2002, that the chemistry of silicofluorides is “not well understood” and studies are needed.

   • EPA health goals ignored
     The EPA defines the Maximum Contaminant Level Goal (MCLG) for toxic elements in drinking water thus: "the level below which there are no known or anticipated effects to health." The MCLG for arsenic, lead, and radioactive particles, all contaminants of the scrubber liquors used for fluoridation, is 0.0 ppb (zero parts per billion). Therefore, any addition of fluorine-bearing substances to drinking water that include these contaminants is contrary to the intent of EPA's established health goals.

   • Increased blood lead levels in children
     Two recent studies with a combined sampling of over 400,000 children found significantly increased levels of lead in children's blood when silicofluorides from the phosphate fertilizer industry were used as the fluoridating agent.\(^6\) This shows that there is a significant difference in health effects even between different fluoridation compounds.

   • Ingestion of fluoride linked to many health effects
     Contrary to assertions that the health effects of fluoride ingestion already have been scientifically proven to be safe and that there is no credible scientific concern, over the last fifteen years the ingestion of fluoride has been linked in scientific peer-reviewed literature to neurotoxicity, bone pathology, reproductive effects, interference with the pineal gland, gene mutations, thyroid pathology, and the increasing incidence and severity of dental fluorosis.\(^7\) This has caused professionals who once championed the uses of fluoride in preventing tooth decay, to reverse their position and call for a halt in further exposures.\(^8\) It is of significance that 14 Nobel Prize winning scientists, including the 2000 Nobel Laureate in Medicine, Arvid Carlsson, have expressed reservations on, or outright opposition to, fluoridation.\(^9\)
• FDA has never approved systemic use of fluoride
  The U.S. Food and Drug Administration in December 2000 stated to the U.S. House Committee on Science they
  have never provided any specific approval for safety or effectiveness for any fluoride substance intended to be
  ingested for the purpose of reducing tooth decay.\textsuperscript{16}

• Total fluoride exposure of growing concern
  Total fluoride exposure from all sources, including food, water, and air, is of growing concern within the scientific
  community.\textsuperscript{17} As evidenced in the U.S. Public Health Service ATSDR 1993 report which was referenced in
  correspondence between the U.S. House Committee on Science and Charles Fox of the U.S. EPA, large subsets
  of the population, including the elderly, children, and pregnant women, may be unusually susceptible to the toxic
  effects of fluoride.\textsuperscript{18}

• Centers for Disease Control concession
  The CDC now concedes that the systemic value of ingesting fluoride is minimal, as fluoride's oral health benefits
  are predominantly topical\textsuperscript{19}, and that there has been a generalized increase in dental fluorosis\textsuperscript{20}.

III. In Consideration of the concerns raised above, we urge fluoridated cities, states with mandatory fluoridation, health
  care professionals, and public health authorities, to review ALL current information available, and use this information to
  re-evaluate current practices.

IV. Congressional Investigation is Appropriate
  This Statement of Concern (same substance, slightly different content and form), along with a significant list of
  signatures, was unveiled at the May 6, 2003 EPA Science Forum session on fluoridation in support of the National
  Treasury Employees Union Chapter 280 (EPA union of professionals) renewed call for a Congressional investigation.
  No authorities from government agencies or non-governmental organizations responded to widespread EPA invitations
  over a six-week period, to attend this session to explain/defend the practice of fluoridation. In view of this fact, and also
  that some serious questions of propriety have been posed but not addressed, about the formulation of the EPA's
  drinking water standards for fluoride\textsuperscript{21}, as well as the downgrading of cancer bioassay data by the EPA in 1990\textsuperscript{22}, it now
  seems especially valid to ask Congress to hold hearings that will compel promoters to answer many unanswered
  questions.

\textit{It is appropriate that the U.S. Congress undertake an in-depth investigation of this public policy that is endorsed
by major U.S. government agencies, but has never been adequately reviewed in its long history. Considering
that there is an absence of research on silicofluorides, and that the latest scientific research on toxicity of
fluorides has never been included in any government policy-making, and considering the many unanswered
questions and concerns, we join the USEPA Union of professional employees in calling for a full-scale
Congressional investigation into the public policy of fluoridation.}

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\textit{Please complete form and fax or mail back; contact information at bottom of page.}
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PLEASE SEND SIGNED STATEMENT TO: Second Look, P.O. Box 20915, Worcester, MA 01602-0915  fax: (508) 755-1535  phone: (508) 755-7352

REFERENCES

to Superscript Numerals in Statement of Concern on Fluoridation

(For a more comprehensive list of scientific literature, see Bibliography section at www.SLweb.org)


5 Personal communication with Dave Paris, Manchester Water Works, NH. (January 2001) Calculation based on estimated two-liters/person/day used for drinking and cooking.


7 Neurotoxicity


8 Bone Pathology


It should be noted that there are studies that found no relation between fluoridation and fractures.

9 Reproductive Effects:


10 Impact on Pineal Gland


11 Genetic Damage

12 Thyroid Pathology

13 Dental Fluorosis


FLUORIDATION: RECENT HISTORY
A Partial, Annotated List of Recent Events, Articles, Hearings, Reports, and Research.

November 2006 – On the basis of the findings of the NRC report, the American Dental Association (ADA), released an e-gram issuing guidelines on the use of baby formula reconstituted with fluoridated water, which it discouraged because of its possibility of causing fluorosis. This announcement was not publicized by the ADA in any other media. Shortly after this e-gram, the CDC also quietly issued similar recommendations on its website.

April 2006 – A paper by Dr. Elise Bassin was published in a mainstream journal, Cancer Causes and Control. Dr. Bassin’s research shows that boys who are exposed to water fluoridation between ages 6-8 have a five-fold chance of developing osteosarcoma, a rare and usually fatal form of bone cancer, some years later. This peer-reviewed paper is the latest of several studies indicating increased osteosarcoma in young males, both animal and human.

March 2006 – A National Research Council panel of the National Academy of Sciences released a report of their in-depth, 3-year research on fluoride toxicity, completed at the request of the EPA. This panel concluded that the EPA’s current safety standards for fluoride in water supplies are not protective, that too much fluoride at the present standard level of 4ppm (parts per million) can be harmful to health, and it recommends that the EPA lower this Maximum Contaminant Level Goal (MCLG) of fluoride to zero. This would effectively end water fluoridation.

July 2005 – Environmental Working Group (EWG) released information regarding an apparent serious cover-up by a Harvard professor, Dr. Chester Douglass, of his own student’s doctoral thesis results (see June ’05 below) because they incriminate the use of fluoride in drinking water. Dr. Douglass stated in a report to the NIEHS, his government funding agency, that there is no scientific evidence indicating any link between ingesting fluoridated water and osteosarcoma (bone cancer). This professor also works for Colgate.

June 2005 – EWG releases uncovered information from a 2001 doctoral thesis by Dr. Elise Bassin that was hidden in the Harvard Library and made relatively inaccessible, even to requesting government agencies. This thesis provides strong evidence, supporting other animal and epidemiological studies, that exposure to fluoridated water by boys at a certain young age led to a much-increased incidence of osteosarcoma (bone cancer) some years later.

May 2004 - Release of The Fluoride Deception, a book by award-winning investigative journalist Christopher Bryson, by Seven Stories Press. Heavily documented and well written, this book is an exposé of the political histories of “fluoride” and the public policy of water fluoridation. Environmental health scientist Dr. Theo Colburn provides the foreword, and 2000 Nobel Prize Laureate in Medicine, Dr. Arvid Carlsson, adds the postscript.

August 2003 – Start of a yearlong fluoride study by a subcommittee of the National Research Council’s Committee on Toxicology, which will review toxicological, epidemiological, and clinical data published since 1993. This NRC panel will evaluate total fluoride exposure from various sources and the adequacy of the Maximum Contaminant Level (MCL) and Secondary MCL (SMCL) for water, set by the U.S. Environmental Protection Agency (EPA).

May 6, 2003 - EPA Science Forum session on fluoridation. For the first time since 1978, a government agency, the EPA, invited a discussion on the merits of fluoridation. However, no one from government agencies or non-governmental organizations that endorse and promote fluoridation, such as the CDC, U.S. PHS, or the ADA, accepted the EPA’s invitation to speak for fluoridation. Prof. Paul Connett spoke on the hazards of fluoridation and EPA’s Dr. Edward Ohanian explained EPA’s current neutral position. The EPA Union of professionals renewed its call for an investigation by Congress into the public policy of fluoridation.


April 25, 2002 - EPA’s National Risk Management Research Laboratory states that the release of fluoride in drinking water from silicofluorides is "not well understood", expresses concern over fluoride’s interactions with other chemicals, and asks for research. Later in the year, the National Toxicology Program (NTP) agreed to nominate the silicofluorides for possible toxicological testing.

September 2001 - Sierra Club issues a position statement on fluoridation, citing "...valid concerns regarding the potential adverse impact of fluoridation on the environment, wildlife, and human health."

February 16, 2001 - Nicholas Regush (ABC News, Second Opinion), brief overview, ending: “What is amazing, however, is that public health policy in this country has allowed water fluoridation to continue in the absence of solid scientific evidence that its benefit is greater than its risk. When you commit to putting a powerful chemical into the water supply, you’d better have the best of evidence that it is both safe and effective. The required level of evidence is just not there.”
October 2000 - The York Review of Fluoridation, (British Medical Journal, Oct. 5, 2000), was commissioned by the British Government's National Health Service. Two main findings were that fluoridation reduced cavities by 15% (not by the large percentages claimed by earlier studies) and that fluoridation increased dental fluorosis in children by 48% with 12.5% of children having severe or moderate fluorosis. Fluoridation proponents (often echoed by the media) claimed that the York Review gave fluoridation a clean bill of health. Prof. Trevor Sheldon, Chair of the study committee, had no patience with the spin thus applied to the research findings. He wrote: "It is particularly worrying then that statements which mislead the public about the review's findings have been made in press releases and briefings by the British Dental Association, the National Alliance for Equity in Dental Health and the British Fluoridation Society. I should like to correct some of these errors:

1. Whilst there is evidence that water fluoridation is effective at reducing caries, the quality of the studies was generally moderate and the size of the estimated benefit, only of the order of 15%, is far from "massive".

2. The review found water fluoridation to be significantly associated with high levels of dental fluorosis, which was not characterised as "just a cosmetic issue".

3. The review did not show water fluoridation to be safe. The quality of the research was too poor to establish with confidence whether or not there are potentially important adverse effects in addition to the high levels of fluorosis. The report recommended that more research was needed.

4. There was little evidence to show that water fluoridation has reduced social inequalities in dental health"....

A highly respected British medical writer, Douglas Carnall, wrote in response to the York Review: "Previously neutral on the issue, I am now persuaded by the arguments that those who wish to take fluoride (like me) had better get it from toothpaste rather than the water supply" (see www.npwa.freeserve.co.uk/index.html).

September 5, 2000 - In a letter, Charles Fox of the U.S. EPA answers many questions from Ken Calvert of the U.S. House Committee on Science, about ingested fluoride's effects on vulnerable subsets of the population. Fox's letter essentially confirms the earlier findings of the U.S. Dept. of Health & Human Services, Public Health Service. Agency for Toxic Substances and Disease Registry, April 1993: Toxicological Profile for Fluorides, Hydrogen Fluoride, and Fluorine. TP-9117, 4/93. Pp. 155-156. Quoting from this report: "Existing data indicate that subsets of the population may be unusually susceptible to the toxic effects of fluoride and its compounds. These populations include the elderly, people with deficiencies of calcium, magnesium, and/or vitamin C, and people with cardiovascular and kidney problems.... Impaired renal clearance of fluoride has also been found in people with diabetes mellitus and cardiac insufficiency.... People over the age of 50 often have decreased renal fluoride clearance."


July 2000 - Journal of the American Dental Association, Feature article by J.D.B. Featherstone, Ph.D., confirms that "Fluoridation in drinking water and in fluoride containing products reduces cavities via topical mechanisms" [Ed.: In other words, by direct contact, as opposed to ingestion]

June 29, 2000 - J. William Hirzy, Ph.D., Vice-President of the union of scientists and other professionals at EPA Headquarters (www.nptwa280.org) testifies on fluoridation before an Environment and Public Works subcommittee at a U.S. Senate Hearing on Safe Drinking Water Standards, reaffirming the union's call for moratorium on fluoridation.

May 2000 - A report by Greater Boston Physicians for Social Responsibility, titled Toxics Threats To Child Development, states in its chapter on fluorides "Studies in animal and human populations suggest that fluoride exposure at levels that are experienced by a significant proportion of the population whose drinking water is fluoridated, may have adverse impacts on the developing brain."

April 2000 - Dr. Hardy Limeback, Head of Preventive Dentistry, University of Toronto, and Past-President of the Canadian Association of Dental Research, explains why he has reversed his position on fluoridation. Other dental professionals who reversed their position: Dr. John Colquhoun, former Principal Dental Officer, Dept. of Health, Auckland, New Zealand, and David Kennedy, DDS, Past President, Int'l. Academy of Oral Medicine and Toxicology.

May 1, 1999 - "White Paper" from the union of professionals at EPA Headquarters (NTEU, Ch. 280) titled "Why EPA Headquarters' Union of Scientists Opposes Fluoridation." (www.nptwa280.org)

August 1998 - Fluorides and the Environment, 16-page report from Earth Island Institute, covering environmental aspects of fluoridation, including its impact on salmon and plants. (www.earthisland.org)

May 1998 - Pediatrics, May '98, Vol. 95. # 5: "Fluoride supplementation for children: interim policy recommendations" (RE 9511) from the American Academy of Pediatrics. Agreeing with recent American Dental Association's recommendations, AAP now advises NO fluoride for infants up to 6 months, even if their water is not fluoridated. (Logically, one would expect warnings not to use fluoridated water for formula for infants, but this warning is not to be found in this article.)

August 1, 1988 - Chemical and Engineering News. A 17-page article by Bette Hileman analyzes the history of fluoridation and fluoridation science. Many examples are given of scientific articles critical of fluoridation that were published abroad after having been rejected for publication in the U.S. Hileman: "Voices of opposition have been suppressed since the early days of fluoridation.... From the beginning, the movement to fluoridate water was conducted more like a political campaign than a scientific enterprise."