

**Editor's Note:** When founded 40 years ago, the International Society for Fluoride Research (ISFR) and its journal *Fluoride* were responding to an acute need for a more open climate for conducting and publishing bio-medical and environmental fluoride-related research—a climate that would be free from restrictions imposed by editorial policies of mainstream journals bent on upholding a particular point of view about controversial issues such as the subject of the guest editorial below. Unfortunately, this veil of forced conformity, although beginning to be pierced, has not yet been entirely lifted, and in a number of countries it not only continues to stifle and prevent funding of nonconforming research, but it also impedes proper care and concern for public health and welfare that are the hallmarks of genuine and honest science. Although the ISFR and *Fluoride* do not take an official position on the issue of water fluoridation, it is in a spirit of openness to differing views that we are happy to publish this guest editorial.

## PROFESSIONALS MOBILIZE TO END WATER FLUORIDATION WORLDWIDE

**SUMMARY:** Over 600 professionals representing a variety of disciplines but all having an abiding interest in ensuring that government public health and environmental policies be determined honestly, with full attention paid to the latest scientific research and to ethical principles, have signed a statement calling for an end of the practice of water fluoridation worldwide.

Keywords: Adverse effects; Dental caries; Dental fluorosis; Fluoride Action Network (FAN); Fluoride toxicity; National Research Council; Osteosarcoma; Professionals' Statement; Risk-benefit analysis; Water fluoridation; York Review.

In the wake of a number of important research reports, reviews, and government advisories that have been published or issued over the last few years, opponents of water fluoridation have been reaching out to professionals in medical, dental, scientific, academic, legal, and environmental fields, from around the world, to sign a statement calling for an end to this practice.

The Professionals' Statement refers to eight "events" as the basis for an urgent call to end fluoridation worldwide. The most important event cited is the publication in March 2006, of the 507-page National Research Council (NRC) report *Fluoride in Drinking Water: A Scientific Review of EPA's Standards*.<sup>1</sup> This report, which took over three and half years to complete, was conducted by one of the most balanced panels ever assembled in the US to look at fluoride. Not directed to look at water fluoridation *per se*, the panel reviewed a large body of literature in which fluoride was shown to have a statistically significant association with a wide range of adverse effects. These include an increased risk of bone fractures, decreased thyroid function, lowered IQ, arthritic-like conditions, and dental fluorosis. Based on their analysis of these findings, the Statement emphasizes that, "Considering the substantial variation in individual water intake, exposure to fluoride from many other sources, its accumulation in the bone and other calcifying tissues, and the wide range of human sensitivity to any toxic substance, fluoridation provides NO margin of safety for many adverse effects, especially lowered thyroid function."

Even though fluoridation promoters in the US and other fluoridating countries have essentially ignored the NRC fluoride report, it did trigger at least one change

in policy. The American Dental Association (ADA) is now advising parents not to use fluoridated tap water to make up baby formula.<sup>2</sup> Although the ADA issued this advisory to reduce the risk of dental fluorosis, which now impacts 32% of all American children<sup>3</sup> and up to 40% in fluoridated communities, the Professionals' Statement points to the fact that fluoridated water contains 250 times more fluoride than naturally present in mothers' milk in nonfluoridated communities (i.e., 1 ppm versus 0.004 ppm F ion).<sup>4</sup>

Buttressing health concerns, the Statement cites an extensive list of publications since 1982 indicating there is little evidence of any significant difference in tooth decay between fluoridated communities and non-fluoridated communities. It also refers to the UK government sponsored "York Review," the first systematic review of water fluoridation, which could find no grade A studies ("high quality, bias unlikely") demonstrating anti-caries benefits of fluoridation.<sup>5</sup> Such dismal evidence for the benefits of fluoridation, despite the enthusiastic support given to this practice by the US Public Health Service for over 50 years, is consistent with another event discussed in the Statement: the concession by the Centers for Disease Control and Prevention (CDC) in 1999 and again in 2001 that the predominant action of fluoride on the teeth is topical, not systemic.<sup>6,7</sup>

With such findings in hand, the Statement concludes that whatever the meager dental benefits may be, they do not justify the serious risks involved. The seriousness of those risks received further reinforcement by another event: the publication in May 2006 of a peer-reviewed, case-control study from Harvard University that found a 5- to 7- fold increase in osteosarcoma in young males associated with exposure to fluoridated water during their 6th, 7th, and 8th years of life.<sup>8</sup> While the Statement cautiously admits that "this study does not prove a relationship between fluoridation and osteosarcoma beyond any doubt, the weight of evidence and the importance of the risk call for serious consideration." As the late Dr John Colquhoun, former editor of this journal, asked me in a videotaped interview in 1998, "Is one death of a teenage boy from osteosarcoma an adequate exchange for saving a part of a cavity in a child's tooth? I think when you put that issue to the lay public, they are mostly common sense people, they say no. If there is the slightest possibility of harm we shouldn't be adding it to the water, even if it does prevent cavities, for which there is now considerable doubt." The fact that this type of bone cancer is frequently fatal tilts the balance overwhelmingly in favor of ending water fluoridation.

For those who wonder how such a water treatment plan ever got off the ground, the Statement refers to the publication in 2004 of *The Fluoride Deception* by prize-winning journalist Christopher Bryson.<sup>9</sup> This carefully researched and thoroughly documented book reveals how certain industrial interests, concerned about liabilities from fluoride pollution and health effects on those working in the environment of operations, played a significant role in the early promotion of fluoridation. In other words, Bryson shows that the endorsement of fluoridation was about far more than a simple concern for preventing tooth decay.

In view of these recent developments, the Professionals' Statement calls upon members of Congress (and legislators in other fluoridating countries) to sponsor a new Congressional (or Parliamentary) Hearing on Fluoridation, so "those in government agencies who continue to support the procedure, particularly the Oral Health Division of the CDC, be compelled to provide the scientific basis for their ongoing aggressive promotion of fluoridation."

The Statement further calls upon "medical and dental professionals, members of water departments, local officials, public health organizations, environmental groups and the media to examine for themselves the new documentation that fluoridated water is ineffective and poses serious health risks." In addition, the Statement points out: "It is no longer acceptable to simply rely on endorsements from agencies that continue to ignore the large body of scientific evidence on this matter—especially the extensive citations in the NRC (2006) report."

In summary, the Statement concludes: "It is time for the US, and the few remaining fluoridating countries, to recognize that fluoridation is outdated, has serious risks that far outweigh any minor benefits, violates sound medical ethics, and denies freedom of choice. Fluoridation must be ended now."

When the statement was released on August 9, 2007, within just six weeks of its launch by the Fluoride Action Network, the Statement had garnered over 600 signers from 39 countries. Signers include many distinguished fluoride researchers, a number of whom have published their research in *Fluoride*, a Nobel Prize winner, three members of the NRC fluoride panel that issued the report discussed in the statement, two officers in the Union representing professionals at EPA headquarters in DC, the President of the International Society of Doctors for the Environment, the Executive Board of the American Academy of Environmental Medicine, the current President and five Past Presidents of the International Academy of Oral Medicine and Toxicology, the President, Vice-President and Secretary of the Academy of Biological Dentistry of Quebec, Two Goldman prize winners, and hundreds of medical, dental, academic, scientific, and environmental professionals, worldwide.

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The full statement and list of current signers can be accessed at the above website. Readers who wish to sign the Professionals' Statement may do so by e-mailing Dr Connett.

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