

Fluoridation: Major Developments

Neurotoxicology & Teratology publishes first study of fluoride neurotoxicity. Rats with plasma fluoride levels similar to some people living in fluoridated areas show hyper- and hypoactive behavioural patterns seen with other known neurotoxins. Dr. Phyllis Mullenix presents results to academic and federal delegations. Shortly after, she is fired from her post as Head of Toxicology at Forsyth Research Institute, future funding denied.

Study in Brain Research finds fluoride causes aluminium accumulation, vascular changes, reduced cell density and β -amyloid plaque deposition in rat brains, "striking parallels" to Alzheimer's disease. Effects seen at 1 ppm fluoride.

Greater Boston Physicians for Social Responsibility discuss fluoride as "a known or suspected developmental neurotoxicant": "Studies in animals 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. Though no final conclusions may be reached from available data, the findings are provocative and of significant public health concern. Perhaps most surprising is the relative sparseness of data addressing the central question of whether or not this chemical, which is intentionally added to drinking water, may interfere with normal brain development and function. Focused research should address this important matter urgently."

Dr. Hardy Limeback: "A lifetime of excessive fluoride ingestion will undoubtedly have detrimental effects on a number of biological systems in the body and it is illogical to assume that tooth enamel is the only tissue affected by low daily doses of fluoride ingestion."

J. Luke PhD study: human pineal gland accumulates extremely high concentrations of fluoride; fluoride is associated with "depressed pineal melatonin synthesis by pre-pubertal gerbils and an accelerated onset of sexual maturation in the female gerbil."

EPA Headquarters: "The implication for the general public of these calculations is clear. Recent, peer-reviewed toxicity data, when applied to EPA's standard method for controlling risks from toxic chemicals, require an immediate halt to the use of the nation's drinking water reservoirs as disposal sites for the toxic waste of the phosphate fertilizer industry."

JADA cover story: "Fluoride incorporated during tooth development is insufficient to play a significant role in caries protection."

CDC: "Fluoride's predominant effect is posteruptive and topical."



1995 1996 1997 1998 1999 2000 2001 2002

7000 EPA professionals write to EPA administrator: "We, the undersigned representatives of a majority of EPA's employee unions, are requesting... setting the maximum contaminant level goal for fluoride at zero, in accordance with Agency policy for all likely or known human carcinogens."

US National Research Council publishes report of fluoride toxicology, after three years of expert review. The report describes fluoride's disruptive effects on the brain, thyroid, bone, and immune system, and concludes that fluoride "appears to have the potential to initiate or promote cancers." The report identifies children, the elderly, diabetics, labourers and athletes, kidney patients, immunocompromised people, and those with iodine and calcium deficiency, as particularly vulnerable to fluoride toxicity.

Medical journal Lancet lists fluoride as an "emerging neurotoxic substance."

Scientific American: "Many of these questions are unsettled and we have much less information than we should." "The thyroid changes do worry me." – Dr. John Doull, Chairman of NRC Review

Hundreds of doctors, dentists, academics and EPA professionals sign EPA unions' statement demanding immediate moratorium, citing peer-reviewed research linking fluoride to brain, bone, reproductive and thyroid effects, and genetic mutations.

1500 Australian doctors, dentists, and scientists: "We strongly reject the notion that placing a chronic poison in our water supplies is clever preventive medicine."

Two studies in Neurotoxicology find fluoridating agents dramatically increase leaching of lead from plumbing, and confirm elevated blood lead in children drinking fluoridated water.

Scientific Consensus Statement on environmental toxins: "The central question, which is still unresolved, is what level of exposure results in harmful health effects to children... emerging science suggests we need to further study the dose at which fluoridation may increase risks of neurodevelopment disorders, cancer and skeletal or dental fluorosis, particularly for sensitive individuals."

British Medical Journal: "Water fluoridation aims to reduce social inequalities in dental health, but few relevant studies exist... There have been no randomised trials of water fluoridation."

Toxicology publishes proof-of-concept animal study showing fluoride increases blood lead and tissue uptake of lead. "We speculate that the unknown mechanism... may involve the effect of fluoride on the control of lead absorption in the intestine or excretion in the kidney."

2003 2004 2005 2006 2007 2008 2009 2010

International Academy of Oral Medicine and Toxicology: "...there is no discernible health benefit derived from ingested fluoride and that the preponderance of evidence shows that ingested fluoride in dosages now prevalent in public exposures aggravates existing illnesses, and causes a greater incidence of adverse health effects. Ingested fluoride is hereby recognized as unsafe and ineffective for the purposes of reducing tooth decay."

Irish Doctors' Environmental Association: "Fluoride is a potentially toxic chemical and the difference between safe and toxic levels of fluoride is small, even for healthy people... Ireland should now stop adding fluoride to its water supplies."

Dr. Joey Hensley, physician in the Tennessee legislature, tells all water districts in the state to stop fluoridating: "The reason fluoridation continues today is due to forces other than the support of good science behind it."

Dr. Ted Schettler, co-chair of Greater Boston Physicians for Social Responsibility: "Intentionally fluoridating community drinking water is no longer justified. Adding fluoride to drinking water for the purpose of preventing tooth decay provides virtually no population-wide margin of safety. Under current circumstances, people should not be essentially forced to drink water treated with fluoride when dental benefits can be achieved through topical application and other means."

Canadian Physicians for the Environment: "On the basis of this 'weight of evidence' we believe that fluoridation of drinking water is scientifically untenable, and should not be part of a public health initiative or program."

Dr. Hardy Limeback: "In my opinion, the evidence that fluoridation is more harmful than beneficial is now overwhelming and policy makers who avoid thoroughly reviewing recent data do so at risk of future litigation."

Over 3060 science, medical, dental and environmental professionals have signed public statement: "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."