

FLOURIDATION OF WATER: A RETROGRADE STEP

DR JERRY THOMPSON

Unethical: no informed consent.

Discriminates against at risk groups (infants, elderly, those with renal disease).

Particularly at risk are bottle-fed babies with even the (pro-fluoride) American Dental Association (ADA) recommending that fluorinated water should not be used to reconstitute formula.

The form of fluoride used in water is a toxic waste product of fertilizer industry (sodium fluorosilicate and fluoro-silicic acid: these often contain arsenic at 1.66 ppb which is high).

Fluoride is a potent enzyme poison. The FDA classifies it as an “unapproved new drug”. Enough in a tube of toothpaste to kill a 20lb child.

No randomised controlled studies have been done to show benefits of fluoridation (original studies from 1945-55 were flawed)

Benefits from fluoride thought to be due to its local effect (killing bacteria in mouth) so it makes no sense to ingest it.

No health agency monitors its adverse effects.

We are already getting too much. Exposure to fluoride has increased four-fold since 1960s (toothpaste, dentistry, pesticide residues, tea, medications).

The largest-ever study showed minimal difference in tooth decay between fluoridated and non-fluoridated areas (<1% of 100 tooth surfaces show less decay in fluoridated areas). (Hileman 1989).

The multi-million dollar National Institute of Health (NIH) funded study showed **no relationship between fluoride intake and tooth decay** in children (Warren JJ. J Public Health Dentistry, 2009;69(2):111-5)

Fluoridation has been stopped in the majority of European countries and tooth decay has continued to decline in those countries.

Fluoride has a neurotoxic effect (33 studies show a **decline in IQ** (<https://fluoridealert.org/studies/brain01/>) It can aggravate effects of low iodine (also lowers IQ)

The Environmental Protection Agency (EPA) listed fluoride as one of a hundred chemicals for which there is **substantial evidence of neurotoxicity**: over 100 animal studies showed it could damage

the brain and impact learning and behaviour
(<http://www.flouridealert.org//health/brain/>)

Danger to foetus: four studies have linked **prenatal fluoride exposure with foetal brain damage**
(<https://www.flouridealert.org/studies/brain03/>).

Fluoride bioaccumulates, in bones and to very high levels in the pineal gland
(<http://www.flouridealert.org/issues/health/pineal/>). Animal and human studies found an association with early puberty. (Luke J. The effect of Fluoride on the physiology of the pineal gland. Ph.D Thesis University of Surrey Guildford, 1996, Schlesinger CM et al. Newburgh-Kingston Caries study XIII. Paediatric Findings after Ten Years. Journal of Am Dental Assoc, 1956; 52(3): 296-306.) Also reduces melatonin secretion.

Increases hip fractures and is associated with reduced cortical bone density
(<http://www.flouridealert.org/studies/bone01/>)

Fluoride binds with magnesium making magnesium unavailable. This binding produces magnesium fluoride which is almost insoluble and replaces magnesium in bone and cartilage making it brittle and susceptible to fracture. This bound magnesium cannot be used by the body. This will **push more people into magnesium deficiency**, a condition which is already common and typically under-diagnosed.

Causes genetic changes in sperm and increases infertility

Damages thyroid and worsens effects of low iodine; (fluoride was used to treat hyperthyroidism in Ukraine and the amount was similar to amount that is added to water in fluoridated areas). It competes with iodine.



Some studies show increase in osteosarcoma in boys. Cohn found a six-fold increase and Bassin later found a seven-fold increase (Cohn PD. An Epidemiological Report on Drinking Water and Fluoridation, New Jersey Department of Health, Environmental Health Service, 1992) and Bassin EB et al. Cancer Causes and Control, 2006; 17(4):421-28)

Mottling of teeth (fluorosis) increasing. This correlates with skeletal fluorosis.

Can cause hyperparathyroidism.

Makes aluminium more bioavailable and more able to cross the blood-brain barrier. Aluminium in the brain is linked with dementia. (Mold, Matthew et al. Aluminum and Amyloid- β in Familial Alzheimer's Disease'. 1 Jan. 2020 : 1627 – 1635.

Additionally

Dr William Marcus was the senior toxicologist at the Office of Drinking Water at the Environmental Investigation Agency. In 1992 he denounced a cover-up showing higher rates of cancer, birth defects and osteoporosis (especially hip fractures) in fluoridated areas.

He was fired but sued. The judge ordered the EPA to give him his job back. Trial showed EPA had shredded evidence and threatened others who supported him.

Winners and Losers

The Precautionary principle suggests that we **should act in the face of uncertain knowledge about risks from environmental exposures.** We should aim to reduce toxicity in an increasingly toxic world.

The question here is: who gains and who loses should we put fluoride into our water? **The gains in terms of teeth are minimal and perhaps non-existent.**

Who will be the losers? **When it comes to toxicity children, and in particular the foetus, are always at the sharp end. They are uniquely vulnerable.** It is they that risk a drop in their IQ and hence of their potential; it is they that risk adverse behavioural changes and hence a less certain future.

Who will be the winners? There can be only one and that is the polluting industries who have now found a way to get rid of their toxic waste.

“Above all do no harm” said Hippocrates. Could fluoride do harm? We have evidence for this.

The Precautionary Principle asks if we have limited but credible evidence of likely harm. Again, the answer is yes. That should be more than enough to stop fluoridation in any society that cares about its future generations.

