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Fluoride is a Bio-accumulative, Endocrine Disrupting, Neurotoxic Carcinogen - Not a Nutrient

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Abstract

Fluoride, Asbestos, Uranium, Lead and Tobacco (FAULT) are multibillion dollar industries that have caused immeasurable harm to humans who have recently discovered that decades of propaganda claims that the products are “safe and effective” are demonstrably false.

Each of these industries has a history of denial of harm, suppression of evidence, attempts to avoid litigation and compensation of victims. In a last ditch attempt to retain public drinking water as a conduit for disposal of Fluoride (an industrial waste product), myth-mongers are attempting to promulgate the “Big Lie” that Fluoride is a nutrient.

Fluoride toxicity

The huge literature resource on Fluoride includes descriptive terms including:

- Cytotoxin
- Clastogen
- Mitogen
- Genotoxin
- Carcinogen
- Mutagen
- Low-dose Endocrine Disruptor
- Neurotoxin

These terms are not used by promoters of Fluoride chemicals and papers that include them are deliberately excluded from sham “studies” of the “safety and efficacy” of Fluoridation [see discussion in Deal 2015; Saul 2012].

As pointed out many years ago, the acute toxicity of Fluoride has been underestimated and is as little as 0.1 mg/kg [Akiniwa 1997].

Some human populations have been exposed to volcanic emissions rich in Fluoride. As mentioned recently [Pain 2015a], the largest recorded knock down of humans, animals and crops

by Fluoride was the eruption of Lakagíggar in Iceland over an eight-month period between 1783 and 1784, where a mixture of Hydrogen Fluoride and Sulfur Dioxide is estimated to have claimed up to 6 million lives directly or indirectly (through starvation due to loss of livestock and crops) in the Northern Hemisphere [Wikipedia 2015].

Industries causing Fluoride air pollution have since become major health and environmental hazards. “From 1957 to 1968, fluoride was responsible for more damage claims than all twenty other major air pollutants combined, according to U.S. National Academy of Science fluoride expert Edward Groth.” [Bryson 2004].

Such industries support fluoridation. It gets them “off the hook”. They can point the finger at government-initiated fluoridated water for the resulting adverse health effects, not their own Fluoride pollution.

Research at the molecular level has shown that some other life forms have evolved the machinery, absent in humans, to eliminate the Fluoride toxin from their cells, [Li 2013, Stockbridge 2015].

Fluoride is a bio-accumulative toxin that our bodies attempt to eject through the kidneys, hair, skin and nails. Fluoride is a member of the so-called “bone-seeking” poisons due to its ability to displace hydroxyl groups in the Hydroxyapatite that forms the mineral content of our bones.

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In the stomach a large proportion of Fluoride is converted to the extremely hazardous, tissue necrotizing, Hydrogen Fluoride (HF) molecule, a gas at body temperature. HF then readily migrates through the airways, stomach and intestines to wreak havoc throughout the body [Sauerheber 2013].

Humans evolved with access to surface rainwater and were initially dependent on the obvious sources of creeks, rivers,

* First published on Research Gate in Dec 2015 and modified slightly here. See: http://www.researchgate.net/profile/Geoff_Pain.

lakes and springs that contained little or no Fluoride. Only relatively recently in human evolution have humans accessed groundwater through sunk wells, and this has led to identification of major hazards in that water such as Arsenic and Fluoride.

Indeed the groundwater Fluoride problem is now recognized by the World Health Organization [2014] which states that Fluoride causes an extensive toll of human suffering and lists:

- Neurological damage
- Reduced IQ scores in children (see also Xiang 2003)
- Dental and skeletal fluorosis
- Osteosclerosis
- Calcification of tendons and ligaments
- Bone deformities
- Conjunctival hyperaemia
- Respiratory disorders
- Chronic cough
- Bronchitis
- Chronic Obstructive Pulmonary Disease
- Exacerbation of Asthma
- Lung Cancer
- Haematological Disorders
- Ischaemic Heart disease
- Carcinoma of the Trachea
- Cerebrovascular Disease
- Digestive Disorders
- Skin Diseases (perhaps referring to Fluoroderma here)
- Rheumatic disorders
- Nervous conditions
- Hearing and Visual disorders
- Cognitive Decline in older people

It is of particular interest that WHO [2014] now states that Fluoride is more toxic than Lead.

The Queensland Government [2015] summarizes the toxicity of Fluoride as follows:

“Acute fluoride poisoning is manifested by vomiting, diarrhoea, abdominal pain, cyanosis, severe weakness, dyspnoea, muscle spasms, paresis and paralyses, cardiovascular disorders including ventricular fibrillation, convulsions, coma and death. Fluoride kills by blocking normal cellular metabolism. Fluoride inhibits enzymes, particularly metallo-enzymes involved in essential processes, causing vital functions such as the initiation and transmission of nerve impulses to cease. The strong affinity of fluoride for calcium leads to hypocalcaemia”.

“The strong affinity of fluoride for calcium leads to hypocalcaemia” - Queensland Govt Workplace Health and Safety. 2015. Fluoride health monitoring guidelines.

In 2007 a rushed and defective review of Fluoride [NHMRC 2007] dispersed its findings of evidence of harm, which I have collated and presented below. Those marked with an asterisk were classified by the NHMRC as supported by statistically significant data:

- Cancer – Takahashi 2001*
- Dental Fluorosis*
- Congenital malformations*
- Osteosarcoma (males)*
- Alzheimer’s disease*
- Mental retardation (High F, Low I)*

- Goitre*
- Urinary stone disease*
- Cardiovascular disease
- Thyroid Cancer
- Osteoporosis
- Decreased Bone Density
- Fracture
- Down’s syndrome
- Anaemia during pregnancy
- Younger age at menarche
- Infant mortality
- Sudden infant death
- IQ reduction
- Skeletal fluorosis

Despite being a specific requirement of the NHMRC tender, the review omitted its findings on the known impact of Fluoride on the kidney and those who suffer kidney disease [NHMRC 2007 Part B].

One of the most significant findings against Fluoride is the discovery that hydroxyapatite enhances the mitogenesis of mammary cells, amplifying the malignant process and resulting in accelerated tumor growth [Wilson 2014]. Recently Fluoride, delivered by mandated fluoridation, has been linked to Hypothyroidism [Peckham 2015], Diabetes and Obesity [Vandenberg 2012, Pain 2015b], Pre-term Birth and Impaired Neurodevelopment [MacArthur 2015] and Attention Deficit Hyperactivity Disorder (ADHD) [Malin 2015].

Fluoride Toxicity Denial

The Fluoride industry suffered greatly after discovery that the ozone layer has been severely damaged by release of chlorofluorocarbons and more recently that long-chain fluorocarboxylates, used as foaming agents, represent another environmental disaster.

Fluoride, Asbestos, Uranium, Lead and Tobacco (FAULT) are all part of a sad tendency in human history to succumb to promotion of consumerism through scientific ignorance.

Australian Governments have conspired to suppress relevant public health data and in particular for vulnerable groups.

- Aust NZ J Public Health. 31 (5) 51-7.

Australian Governments have conspired to suppress relevant public health data and in particular for vulnerable groups [Yazahmeidi 2007].

Fluoride toxicity denial resembles Global Overheating denial. Politicians have been duped by the Fluoride industry and are reluctant to admit that they have caused suffering to hundreds of millions of people through forced fluoridation of public drinking water supplies.

For the bureaucrats who have sanctioned or actively promoted water fluoridation to admit that they have given the wrong advice to the politicians for decades is a question of conscience that leads to fear of exposure, loss of position, reputation and belief in self.

Denial is a psychological crutch.

Some of these bureaucrats, including scientists and medicos, have developed a strategy that goes beyond denial to the mongering of myths.

The Big Lie: Claiming Fluoride is a 'Nutrient'

In 1954 the Australian National Health and Medical Research Council became concerned about the high levels of Fluoride intake by people working in hot conditions, stating: "cane-cutters in Bundaberg consume as much as 10 litres per day of which 4 litres is tea" "Assuming 0.5 ppm in the water and 2.5 ppm in the tea, the maximum fluorine intake could be 16.5 mg/day". Note that today, 1.5 ppm Fluoride is allowed in Australian fluoridation, so that such workers would actually consume 26.5 mg/day. This is about one-twelfth the lethal dose. This comes as a shock to many interested in nutrition [Stanton 2015]. The level of 26.5 mg/day is more than seventeen times the maximum legal limit of Fluoride chemicals permitted in Australian drinking water.

The fundamental nutritional studies of Fluoride, proving it has no positive role in human development are more than half a century old [Maurer 1957].

"... Fluoride... has no positive role in human development..." - Maurer, *The Non-Essentiality of Fluoride in Nutrition*.

In 1963 the USFDA stated that Sodium Fluoride used for therapeutic effect [e.g. water fluoridation] would be a drug, not a mineral nutrient [Loving 1963]. In 1979, the USFDA ordered that all government documents remove all references to fluoride as an "essential nutrient" or even a "probable essential nutrient." "The USFDA has never received or ever reviewed, much less approved, even the fluoride drops or tablets (which are pure pharmaceutical grade fluoride) for safety or effectiveness". [Kennedy D, personal communication].

In 1966 The International Society for Research on Nutrition, Vital Substances and the Diseases of Civilization (founded by Dr. Albert Schweitzer in 1954) issued a statement opposing fluoridation which included "fluoride is an enzyme poison which can cause irreversible and unpredictable diseases." [cited in Connett 2015].

The United States Public Health Service stated "The United States Public Health Service does not say sodium fluoride is an essential nutrient" [USPHS 1966].

Numerous scientific journals have subsequently published studies demonstrating that Fluoride is not a nutrient [Diesendorf 1990].

The US National Research Council [1993] stated "Fluoride is no longer considered an essential factor for human growth and development".

The American Dental Association [2000 cited in Connett 2002] and the Center for Disease Control [2001 cited in Connett 2002] have both declared that there is no significant reduction in tooth decay from the mechanism of ingested fluoride, including any relevant contribution from glandular saliva following ingestion of fluoridated water.

In 2002 Belgium banned Fluoride deliberately added to salt [Belgium 2002].

The American College of Nutrition [Marshall 2004] warns against feeding babies infant formula made up with fluoridated water.

The United States Food and Drug Administration [2006] will not allow Fluoride to be added to vitamins or supplements that claim a nutritional benefit.

The International Association of Oral Medicine and Toxicology [2003], dentists opposed to fluoridation, state that Fluoride is of no benefit for teeth.

As pointed out by Needham [2010], the fluoride content of the body "is not under physiological control and that is the fundamental factor that differentiates between a substance that is a nutrient and one that is simply a contaminant".

Fluoride is of no benefit for teeth

- International Association of Oral Medicine and Toxicology, 2003

In 2011 the European Commission stated "Fluoride is not essential for human growth and development" [SCHER 2011].

In 2011 in Australia and New Zealand, the Big Lie was stated, by anonymous authors, thus: "Fluoride is necessary for the mineralisation of teeth and bones with approximately 99% of fluoride in the body found in calcified tissues" [FSANZ 2012]. This study also deliberately prepared foods in non-fluoridated water, thus resulting in false low estimation of Australian total dietary Fluoride intake.

In 2013 the United Nations and the World Health Organization officially recognized Fluoride as a Low-Dose Endocrine Disruptor linked to Diabetes and Obesity [Bergman 2013, Vandenberg 2012].

The European Food Safety Authority [EFSA 2013] could not be clearer and states unequivocally "Fluoride is not an essential nutrient" and also "No signs of fluoride deficiency have been identified in humans".

In 2014 the Israeli Government banned water fluoridation to protect the health of its citizens.

In 2015, flying in the face all the historical and rigorous science outlined above, the unsupported claim was made in Ireland "thereby it (Fluoride) could be considered an essential dietary nutrient. As with all dietary nutrients it is possible to have either too little or too much in the diet" [Sutton 2015].

In 2015 the Obama administration recommended a massive decrease in the allowable concentration in American drinking water from 4 mg/litre to 0.7 mg/litre.

It's Time to face the absurd contradictions

The perpetrators of the Fluoridation fraud and the Big Lie must not be allowed to claim that Fluoride has any value as a nutrient.

The overwhelming evidence of harm demands that the Australian and New Zealand Governments unite with the scientifically literate world and eliminate all pretence by FSANZ and the NHMRC that Fluoride has a place in any nutritional review or has a "Nutrient Reference Value".

Claims of economic benefit from fluoridation have been shown to be false [Ko 2015].

The current Fluoride review [Australian Government 2015] is absurd - stating for Fluoride that "there is no evidence that the Australian and New Zealand population has any level of deficiency". And yet they propose to increase the fictional "adequate intake"!!!

The World Health Organization has begun to undo the damage that it has done by listing the known harms caused by Fluoride. It must now cease promoting an "adequate intake". The Australian Therapeutic Goods Administration must act immediately to classify Fluoride, dispensed in any form, as a drug, bringing it into line with previous Australia legal findings that it is medication, not "water treatment" and is therefore subject to regulation of dose at the individual level with consumer warnings of side effects [Verkerk 2010].

The World Health Organization has begun to undo the damage that it has done by listing the known harms caused by Fluoride.

It would be sheer lunacy to allow FSANZ and the NHMRC to increase allowable Upper Levels (ULs) of Fluoride intake. The recommendation should be a target of Fluoride intake as low as reasonably achievable.

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Quotes:

Carl Sagan:

"Reality is always preferable to a comfortable fable."

Gandhi:

"Non-violence is the greatest force at the disposal of mankind. It is mightier than the mightiest weapon of destruction devised by the ingenuity of man."

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