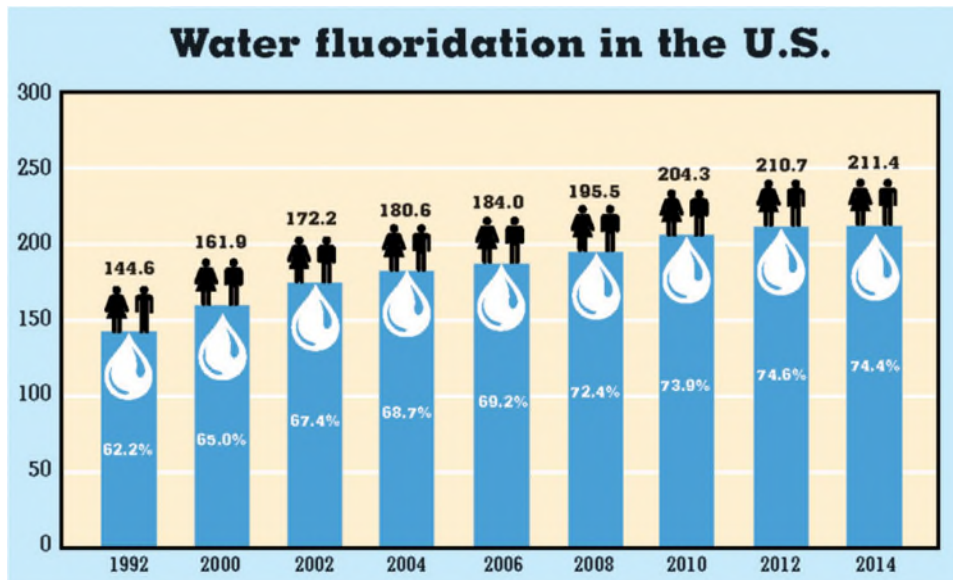


# Medicated Nation: The Phony Science behind Water Fluoridation

by Jeremy James



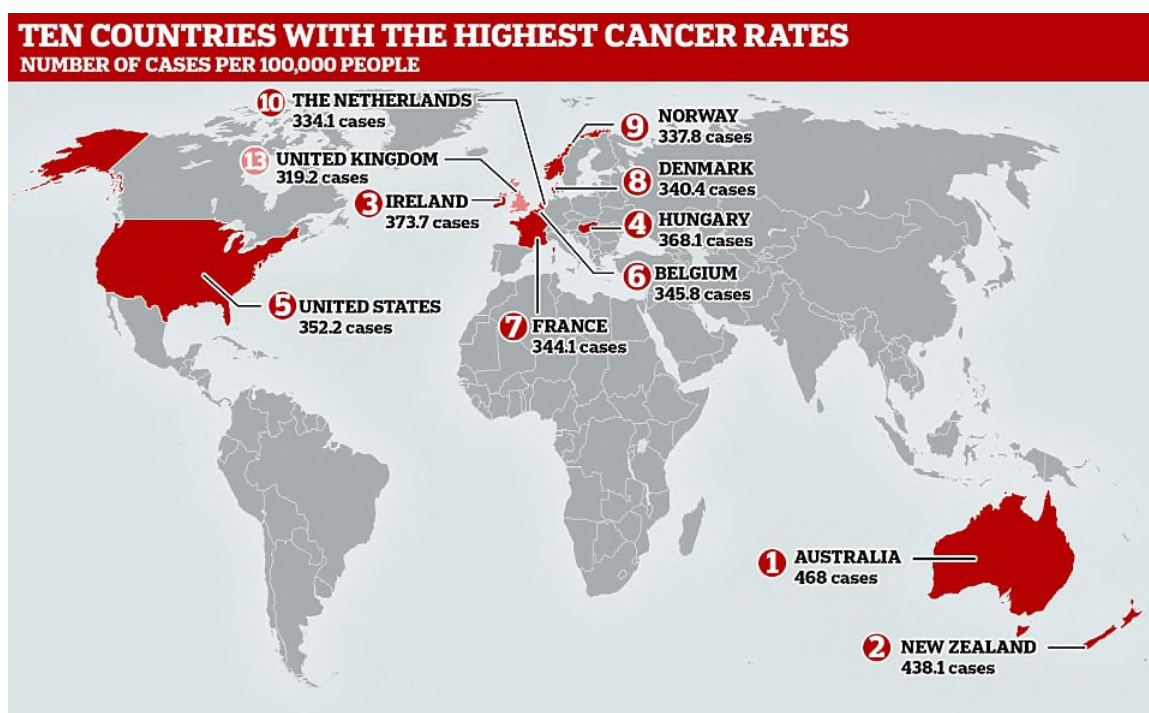
Number of people (in millions) in the U.S. drinking fluoridated water.

We will summarize at the outset the claim we are making in this paper: Despite numerous attempts by the public to have the practice terminated, successive Irish governments have continued to mandate by law the addition of a known neurotoxin, **Hydrofluorosilicic Acid**, to the public water supply. This practice, which began in 1964 and has continued without interruption (using a chemically similar substance) for the past 55 years, is ostensibly justified on health grounds. According to the Government its ingestion into the body in minute amounts contributes significantly to the prevention of tooth decay, particularly among children. Critics, on the other hand, have argued strenuously for many years that, even if this purported benefit could be proven in a scientific and objective way, the deliberate addition of a known neurotoxin to the public water supply, albeit in minute or trace amounts, is adversely affecting other biological processes in the human body and may be causing permanent harm to the health and well-being of our children.

## Most countries reject water fluoridation – with good reason

Successive governments have made only token efforts to allay public concern, having failed repeatedly to produce convincing scientific evidence that these deleterious consequences are imaginary. Even though many other countries reject water fluoridation on the grounds that it poses a possible risk to human health, the Irish government continues to make it mandatory. While no official surveys appear to have been conducted, anecdotal evidence strongly suggests that the vast majority of the adult population want this practice terminated.

In the course of this paper we will show that water fluoridation is a potentially harmful practice, that it is tantamount to mass medication, that the scientific literature which purports to justify it is seriously flawed, that the toxic effects of fluoride (even in trace amounts) have long been documented in scientific literature, and that the disparity in public health, under certain headings, between the population of Northern Ireland (which does not practice water fluoridation) and that of the Republic (which is 70% fluoridated), is highly significant.



Source: World Health Organization, 2018.

The top 3 countries – Australia, New Zealand, and Ireland – all have artificially fluoridated water supplies.

Many readers living outside Ireland will also need to consider this question. Over 70% of the U.S. (by population) has a fluoridated public water supply, as have New Zealand and large parts of Australia and Canada. The public water supply in the Midlands of the UK, serving around 10% of the population of England and Wales, is also fluoridated.

## Why is this an important issue?

The fluoridation saga in Ireland and elsewhere is of great importance since it raises, not just questions relating to public health – which is immensely important in its own right – but questions regarding democracy and government accountability, the political independence of scientific experts and other professionals, and the extent to which the establishment is able to impose pharmaceutical and therapeutic modalities on the public without authorisation, consultation or valid scientific evidence.

As we have shown in many of our previous papers, phony science is being used by the architects of the New World Order to frame public policy in ways which limit personal freedom and enhance corporate control. Since our educational system instils the belief that ‘science’ is a shorthand way of describing ‘the sum total of objective, observable, measurable, and verifiable propositions about the real world’, it cannot be challenged, except perhaps by trained professionals working in the relevant discipline. It never occurs to most people that a large portion of what passes for science today is nothing more than opinion and speculation expressed in high-sounding academic terms.



We tend to forget, to our peril, that highly intelligent people are capable of framing very convincing lies and will manipulate their intended audience for as long as they can, until somebody has the audacity to ask some obvious questions. The peer review system, which is supposed to ensure a high standard of rigor and professional excellence in any paper submitted for publication in a reputable academic journal, is known to be deeply flawed. Most scientific communities operate like social clubs, with insiders supporting each other and doing all they can to exclude outsiders and co-opt new members.





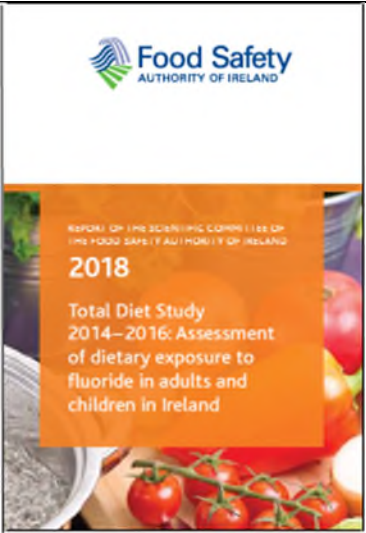
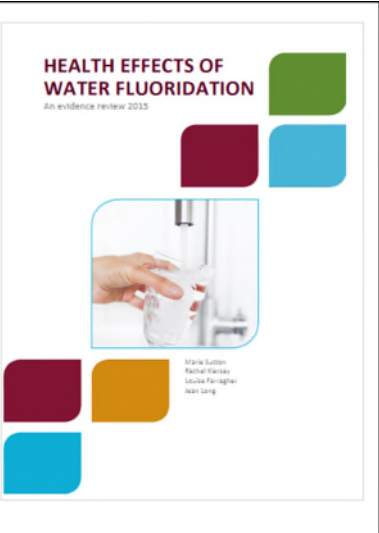
## The background to fluoridation in Ireland

In Ireland many have objected strongly to the continuance of this practice, especially as the science behind it is so vague and many important questions have not been answered satisfactorily. Despite several official reports, including those listed here, the public have yet to receive definitive reassurance that the practice is safe:

**Report of the Forum on Fluoridation 2002,**  
Dublin 2002 (296 pages)

**Health Effects of Water Fluoridation: An Evidence Review 2015**  
Commissioned by the Department of Health and prepared by the Health Research Board, Dublin 2015 (130 pages)

**Total Diet Study 2014–2016: Assessment of Dietary Exposure to Fluoride in Adults and Children in Ireland:**  
Report of the Scientific Committee of the Food Safety Authority of Ireland, Dublin 2018 (130 pages)

	
<p><b>“Based on the results of this study, the FSAI Scientific Committee concluded that there is currently no scientific basis for concerns about the safety of children and adults in Ireland from exposure to fluoride from foods and beverages.” (p.4)</b></p>	<p><b>“There is no definitive research evidence to support claims of a causal link between fluoride intake and arthritis, but it is known that long-term exposure to high levels of fluoride may cause skeletal fluorosis.” (p.108)</b></p>

There have also been two major international reports which proponents of fluoridation often cite in their favor. Both claim to have found no “conclusive” proof that fluoridation is responsible for adverse health effects of any kind in humans. The reports, which we cite below, are based, not on original research, but on a comprehensive meta-analysis of all peer-reviewed medical literature in the English language relating to the health effects of fluoride in humans:

McDonagh M *et al.* (2000) **A Systematic Review of Water Fluoridation**. York: NHS Centre for Reviews and Dissemination, University of York. [Usually referred to as “the York Review”]

National Health and Medical Research Council. (2007) **A Systematic Review of the Efficacy and Safety of Fluoridation**. Canberra: NHMRC; Australian Government. [Usually regarded as an updated version of the York Review]

<p style="text-align: right;"><b>PRACTICE</b></p> <p><b>Key points</b></p> <ul style="list-style-type: none"> <li>• The body of evidence available on the efficacy and safety of water fluoridation was of lower quantity and quality than had previously been reported.</li> <li>• The best available evidence from studies that met inclusion criteria suggests that fluoridation of drinking water supplies reduces caries prevalence but is associated with dental fluorosis.</li> <li>• The balance of the evidence did not show an association between any fractures and water fluoridation.</li> <li>• No associations between water fluoridation and human cancer were found.</li> </ul> <p><b>The York Review – A systematic review of public water fluoridation: a commentary</b></p> <p>E. T. Treasure,<sup>1</sup> I. G. Chestnutt,<sup>2</sup> P. Whiting,<sup>3</sup> M. McDonagh,<sup>4</sup> P. Wilson<sup>5</sup> and J. Kleijnen<sup>6</sup></p> <p>Following the election of the British government in May 1997, a policy document outlining proposals to improve the health of the nation was published. This document placed a major emphasis on reducing inequalities in health and recognised the continuing poor state of oral health in deprived communities. However, whilst acknowledging the benefits of water fluoridation as a caries preventive measure, the Department of Health suggested that most of the research had been carried out some years ago and furthermore, recognised that strong views were held both for and against fluoridation.</p> <p>As a result of this document,<sup>1</sup> the Chief Medical Officer commissioned a review to investigate the efficacy and safety of water fluoridation and the contract for the review has now been published in two forms. Firstly in an article in the British Medical Journal<sup>2</sup> and secondly the full version of the published report by CDR<sup>3</sup> which effects, eg dental fluorosis (mottled teeth), bone fractures, cancer? • Are there differences in the effects of natural and artificial water fluoridation?</p>	<p style="text-align: right;"><b>SUMMARY REVIEW/CARIES</b></p> <p>SA   2C   2B   2A   1E   1A</p> <p><b>A systematic review of the efficacy and safety of fluoridation</b></p> <p>Australian National Health and Medical Research Council. Canberra: Australian Government, 2007</p> <p><b>Scope and purpose</b> The systematic review was commissioned by the Australian National Health and Medical Research Council (NHMRC) to evaluate the scientific literature relating to the health effects of fluoride and fluoridation. The systematic review's research questions relate to the caries-reducing benefits and associated potential health risks of providing fluoride systemically (via addition to water, milk and salt) and the use of topical fluoride agents, such as toothpaste, gel, varnish and mouthrinse. Although the review summarises the recent evidence, it does not constitute health policy or clinical practice recommendations.</p> <p><b>Data sources</b> A literature search was undertaken using the Medline and Embase databases (via www.embase.com). In addition, the Cochrane Systematic Review and Clinical Trial databases were searched to help identify additional systematic reviews and original studies. Because of the</p> <p><b>Commentary</b> This systematic review of fluoridation is the fourth of the reviews commissioned by the NHMRC in Australia. The first two were carried out in 1985<sup>4</sup> and 1991<sup>5</sup> and focused on the effectiveness of water fluoridation. The third one<sup>6</sup> included a review of fluoride intake from discretionary fluoride supplements in addition to water fluoridation. The third review was published in 1999, and is presently available on the website of Australian Dental Association (www.ada.org.au/app_cmshk/media/000/00050958_v1_rthum%20fluoride.pdf). The fourth review<sup>7</sup> published in 2007 has once again expanded its scope by including other methods of fluoride delivery, such as milk, salt, toothpaste, gel, varnish and mouthrinse. Fluoride supplements such as drops, chewable tablets and chewing gum tablets have not been explicitly included in the current review, however.</p> <p>The aim of the most recent review was to synthesise the highest level of evidence to answer each clinical question. It should be noted</p>
<p><b>“With regard to other adverse health effects there was insufficient good quality evidence on any particular outcome to reach conclusions.” – York Review</b></p>	

The main findings of the York Review, as stated by the Fluoridation Forum (2002), included the following:

The best available evidence from studies on the initiation and discontinuation of water fluoridation suggests that fluoridation does reduce caries prevalence...The degree to which caries was reduced was unclear from the data available.

With regard to possible negative effects the effects on dental fluorosis were the clearest. There was a dose response relationship between water fluoride level and the prevalence of fluorosis. A rate of 12.5 per cent of fluorosis of aesthetic concern was noted in fluoridated areas.

There was no evidence of an association between water fluoridation and cancers. With regard to other adverse health effects there was insufficient good quality evidence on any particular outcome to reach conclusions. The evidence on natural versus artificial fluoride sources was extremely limited and comparisons were not possible for most outcomes.

The reference to “insufficient good quality evidence” is an admission that they simply don’t know whether or not fluoridation is causing adverse health effects. Perhaps it is; perhaps it isn’t.

### **The Fluoridation Forum 2002**

How did the Fluoridation Forum (2002) deal with this issue? In the chapter dealing with ‘The Ethical and Legal Dimension’ (Chapter 13), it made the following unsettling remarks:

The York Report, in which it was reported that the benefit of water fluoridation was less than had been previously thought, was referred to. Gaps in our knowledge in relation to fluoride toxicity were highlighted, particularly in relation to young babies and those with renal problems. On the issue of toxicology, the point was made that if conclusive scientific evidence of harm became available, then the ethical position would alter. [p.137]

Where one might have expected to see expressions of concern about these “gaps in our knowledge”, we find instead a lame acceptance of the status quo, reinforced by the less than soothing assurance that, if ever they have “conclusive scientific evidence of harm,” they will definitely perk up and take action.

<p>■ <i>Fluoride inhibits enzymes that breed acid-producing oral bacteria whose acid eats away tooth enamel. This observation is valid, but some scientists now believe that the harmful impact of fluoride on other useful enzymes far outweighs the beneficial effect on caries prevention.</i></p>	<p>Extract from <i>Fluoride in Water: An Overview</i>, Waterfront Newsletter, Issue No.13, December 1999, UNICEF</p>
<p><b>UNICEF admits that fluoride is harmful.</b></p>	

The report of the Health Research Board [HRB] (2015) was more constructive in this regard. Using the two systematic reviews mentioned above, the York Review (2000) and the Australian NHMRC Review (2007), to provide its methodology and a point of departure, it sought to establish whether more recent peer reviewed literature, either alone or in conjunction with earlier research, would address any of the many unanswered questions about the health effects of fluoridation. Among the areas it was concerned to address were “musculoskeletal effects, IQ and neurological manifestations, cancer, cardiovascular disease and other potential health effects.”

In the course of its analysis the HRB report made a number of statements, including the following, which lend support to the popular perception that fluoridation is harmful:

“A number of authors report that there is biological plausibility for linking fluoride to osteosarcoma, as fluoride accumulates in bones and changes the properties of bone.” [p.16]

“On the topic of hypothyroidism there was one primary study. Peckham *et al.*, in an ecological study, found a statistically significant association between water fluoride levels of greater than 0.3 ppm and the prevalence of hypothyroidism in GP practices.” [p.18]

[*Re geographical regions where ground water contains fluoride at levels above 1.5 ppm*] “There are strong suggestions that high levels of naturally occurring fluoride in water may be associated with negative health effects, in particular, skeletal fluorosis and lowering of IQ. In addition, there are some indications that high levels of naturally occurring fluoride in water may also be associated with cardiovascular disease.” [p.18]

“Concerns about fluoride’s effects on the musculoskeletal system focus on bone mass density, skeletal fluorosis and bone fracture. Fluoride is readily incorporated into the crystalline structure of bone, and accumulates over time. Fluoride increases bone density and appears to exacerbate the growth of osteophytes present in the bone and joints, resulting in joint stiffness and pain.” [p.28]



**Thyroid**

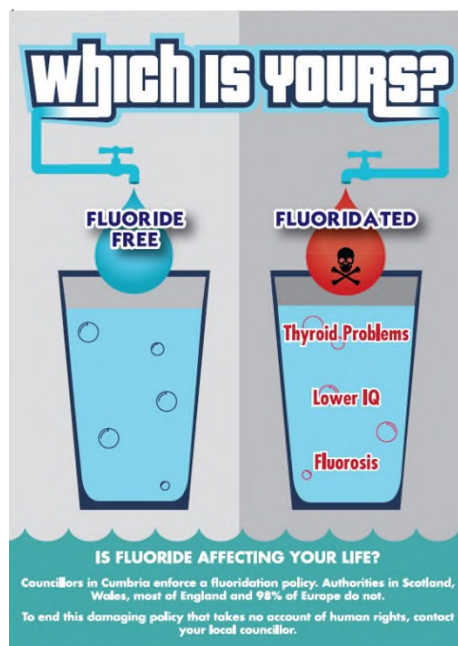


“The existence of biological plausibility in relation to fluoride and bone cancer (mentioned earlier) renders the 2014 Levy *et al.* paper important to this discussion, although it does not examine osteosarcoma specifically... The study has extremely important strengths in that data were from a cohort that was followed longitudinally, and measures of fluoride intake were calculated for each year in individuals rather than relying on population data or long-term recall exposure.” [p.72]

Alas, while acting in good faith, the authors of the report resort time and again to a patronising device which effectively quashes all debate. Whenever a study shows evidence of a real link between water fluoridation and an adverse health outcome, they question the methodology employed (just the authors of the York Report did). In many instances these dismissals are entirely unconvincing. The following quotations are typical of many similar statements found throughout the report:

“Researchers have advanced hypotheses linking fluoride and all-cause cancer incidence or mortality, but there is a dearth of good quality longitudinal research available to affirm or rule out these suggested links.” [p.17]

“Having examined the evidence, and given the paucity of studies of appropriate design, further research would be required in order to provide definitive proof, especially in relation to bone health (osteosarcoma and bone density) and thyroid disease (hypothyroidism).” [p.18]



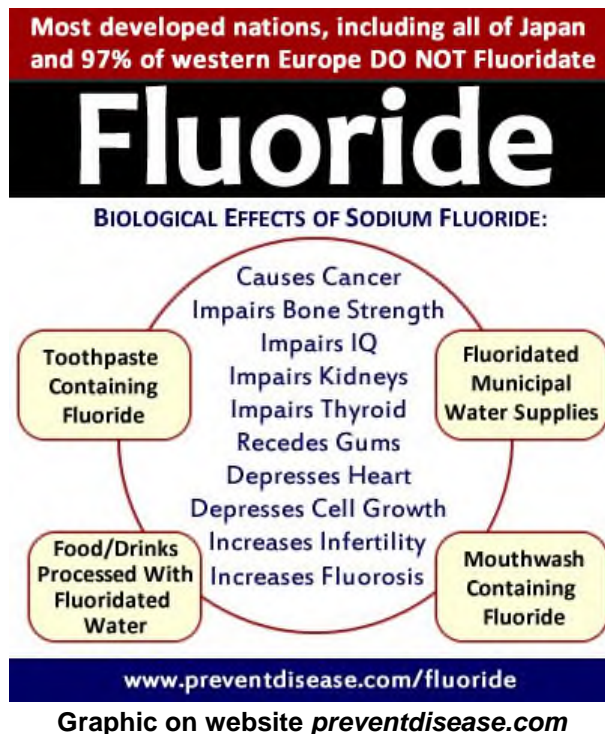
Poster opposing fluoridation in Cumbria, UK.

“The primary limitation of the review is the quality of the research included. Overall, our search indicated that there is a dearth of good quality primary research studies that examine the potential association of human health-related problems with water fluoridation. Many of the studies employed a study design that was unsuitable for inferring causality and many did not employ methods to minimise bias or control for confounders.” [p.24]

“The studies are of low quality in that they do not take full account of other factors that could also cause a lowering of IQ (also called confounders), e.g., nutritional status, socioeconomic status, iodine deficiency, other chemicals in the ground water (arsenic or lead). Apart from the levels of fluoride in the water, these countries are very different from Ireland with respect to climate, nutritional status, and socioeconomic status. Thus, their findings are not applicable to Ireland or other countries with CWF schemes.” [p.43]

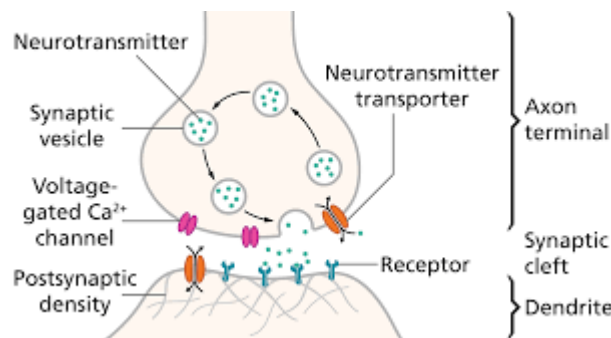
“The HRB authors acknowledge that this study [Peckham *et al.*] suggests that fluoride in water may be linked to the development of hypothyroidism, but observational epidemiological studies (such as cohort and case-control study designs) are required in order to prove causality.” [p.84]

[Note: The study by Peckham *et al.* found a large body of clinical data which revealed that persons living in a fluoridated area were **twice** as likely to suffer from hypothyroidism as those who lived in a non-fluoridated area.]



One of these numerous ‘dismissals’ related to a study by Blaylock and Strunecka in 2009 which sought to identify the underlying mechanism of autistic spectrum disorders. They found evidence that environmental and dietary excitotoxins – notably fluoride, mercury and aluminum – can exacerbate pathological and clinical problems and affect cell signalling, thereby interfering with neurodevelopment and neuronal function. These were especially important findings and deserved to be examined more closely. Instead we were asked by the HRB to accept the following patronising put-down:

“In 2009, Blaylock and Strunecka conducted a review which primarily investigated...the underlying mechanism of the autistic spectrum of disorders. The researchers explored the role of aluminium and fluoride in this process. Approximately four studies are quoted in relation to fluoride. ...The review does not describe either paper selection or the methods used to describe the synthesis of results. Therefore, given this low-quality approach, it is impossible to use these papers to inform evidence.” [p.56]



**Neurotransmission.**

The HRB report also includes a statement which virtually implies that the burden of proof regarding the safety of fluoridation rests primarily with the ‘opposition’. It is saying in effect that fluoridation is safe, as far as we know, and that concerns regarding toxicity are not to be taken too seriously. While the following does not amount to a political statement, it fits too comfortably with the conventional narrative, and fails to acknowledge that, if the science behind fluoridation is flawed in any respect, the consequences for human health are potentially very serious:

There is opposition, both in Ireland and worldwide, to the practice of artificially fluoridating water supplies. This opposition results from concerns about possible side effects that drinking fluoridated water may cause. This is a very difficult area, as it is impossible to prove beyond doubt – as with any other intervention – that absolutely no negative effects result from its use, and no risk is associated with fluoridation intervention. The scientific evidence can indicate that negative health effects are improbable, but cannot rule them out completely. Many of the concerns about adverse health effects of fluoride result from findings in endemic regions with very high levels (1.5 ppm–10 ppm) of naturally fluoridated water, two to twelve times higher than the levels of fluoride in the water in Ireland (0.6 ppm–0.8 ppm) [p.26-27]


Fluoridation violates all the principles of modern pharmacology. For a tiny benefit, the individual is subjected to a significant unquantifiable risk. The science behind it is ridiculously primitive, while the cavalier manner in which all scientifically grounded objections are pushed aside, no matter how plausible or compelling they may happen to be, is simply not acceptable.

### **Effects on general health**

Fluoridation is assumed to be safe even in the absence of studies which prove that the progressive accumulation of fluoride in bones is completely harmless, or that the progressive calcification of the endocrine glands by fluoride is no cause for concern, or that the impact of fluoride on vital biochemical processes throughout the body – such as enzyme function, cell permeability, or neuronal transmission – is entirely neutral.

Common sense – not to mention the known toxicity of fluoride and its highly reactive chemical properties – would strongly suggest that this could not possibly be the case. After all, what are the odds that a potent neurotoxin could be introduced into the body and cause only one health effect, which just happens to be beneficial? This is quixotic thinking that would tax even the man from La Mancha.

The classification of fluoride as “an essential nutrient” by the World Health Organization must surely count as one of the most cynical and duplicitous ploys in modern medical history. That a major international organization is prepared to make such a blatantly fraudulent claim is evidence that fluoridation is a political issue, not a medical one. It also lends weight to the view that fluoridation is being used, not to improve health, but to produce a weaker, more amenable population.

<p><b>"I know of absolutely no, and I mean absolutely NO means of prevention, that would save so many lives as simply to stop fluoridation. Or, don't start it where it is otherwise going to be started. There, you might save 30,000 or 40,000 lives a year. Cancer lives ... That's an awful lot of lives a year."</b></p> <p><b>Dr. Dean Burk, Ph.D (34 Years - The National Cancer Institute) Judicial Hearing, January 14, 1982</b></p>	
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Many studies showing the adverse effect of fluoride on the health of animals are disregarded in any official or government-approved debate on the safety of fluoridation. Given that the toxicity of a very wide range of substances is determined by their effect on animals in a clinically controlled environment, it is impossible to understand why this important source of biochemical information is entirely discounted where fluoride is concerned.



The York Review was unable to make any substantive statement about the impact of fluoride on general human health. Like other reviews and official reports it merely alluded to the need for further study. This approach may be pragmatic from a political perspective but it is not scientific. The “paternalism” which is used to justify a nationwide medical intervention must be shown to have a sound scientific basis. The fluoridation Forum report (2002) actually had the gall to say that “The addition of fluoride to the water supply is a paternalistic intervention by the State to safeguard the dental health of its citizens.” [p.136]

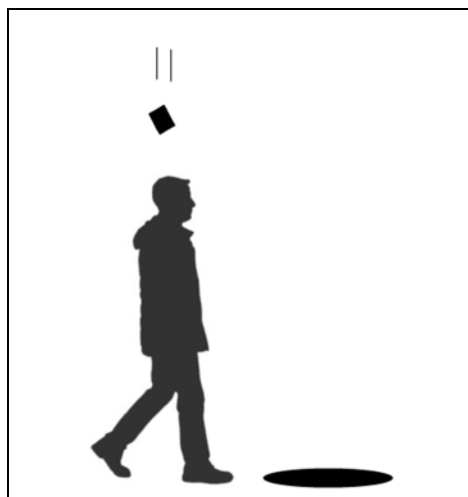
The same report took an equally cavalier attitude to a question which every citizen is entitled to ask and to expect an honest answer: What about the area of uncertainty in science, where it can never be stated categorically that something is completely safe?

Here is how the Forum responded to that question:

“Then it comes down to risk versus benefit. Does the benefit outweigh the risk sufficiently to allow that risk to be tolerated? If the precautionary principle were always followed, then nothing would ever be done. From an ethical viewpoint, risk can be justified if the benefit significantly outweighs the risk.” [p.137]

Numerous scientific studies show that this reply is utter nonsense. Even UNICEF rejects it! We know the risk far outweighs the supposed benefit, particularly as the ‘benefit’ can be achieved just as easily by oral rinsing.

In the absence of robust empirical confirmation that fluoridation is completely safe, the continued addition of this neurotoxic substance to the public water supply must be seen as a large scale experiment on an unwitting population. The precautionary principle, which the forum scoffed at, is a fundamental feature of the Hippocratic oath – which imposes on the medical profession a commitment to “first, do no harm.” Instead we have, perversely, a ‘hypocritical oath’, where a sweeping medical recourse is adopted without any proper understanding of its full implications.



**Knowledge gaps can cause serious harm.**

The systematic reviews cited above referred to the many “knowledge gaps” in relation to fluoridation and its health effects. To their shame they failed to enumerate the potential consequences of these gaps or to highlight their significance. They did not even concede that these “knowledge gaps” are equivalent to ignorance, and ignorance in such matters – where human health is directly affected – is a potential cause of harm.

### **Prescription Drugs**

One of these gaps, in this instance a startling gap, relates to the extent if any to which fluoride interacts with prescription drugs. This is especially important in relation to prescription drugs which contain fluoride. As it happens a wide range of pharmaceutical substances which have a psychotropic or neurological effect contain fluoride. These include certain anaesthetics, analgesics, sedatives, antidepressants, and antipsychotics. Fluoride is also present in certain antibiotics.

The medical profession is heavily influenced, if not controlled, by the pharmaceutical industry. Good quality research requires funding. Reliable funding, as well as access to suitable facilities, is normally required for any medical study that is designed to prove a causal connection between two or more variables. The institutions which dispense these funds are generally able to decide which studies and research topics merit the most attention. So, **unless** pharmaceutical companies and state-controlled institutions want to find a possible causal connection between fluoride and adverse health effects in humans, no studies of this kind will receive the necessary funding. It's that simple.

### **Dosage Level**

In a phony science laced around with pseudo-facts of every kind, perhaps the most obvious deception of all relates to dosage. What is the ‘safe’ level of fluoride dosage and how does one ensure that everybody receives the right daily amount? The so-called ‘safe’ level was chosen arbitrarily by the early champions of fluoridation. There is no known safe level because no objective, double-blind studies using a control group were ever conducted to determine what it was – or whether it even existed.



As many medical professionals have pointed out, fluoride is a poison which is not naturally present in any chemical process in the human body. In that regard it is similar to mercury, lead and aluminum. There is no 'safe' level of mercury because mercury is a poison which has no natural function in the human body. The same is true of lead and aluminum. So we should hardly be surprised if another potent toxic substance – fluoride – has no safe level in the human body. When these toxins enter the body, our immune system immediately tries to neutralize and expel them.

Even if one were to accept the so-called 'safe' level chosen arbitrarily by its proponents and endorsed by the World Health Organization, there is no secure and reliable method of ensuring that this dosage level is never exceeded. The toxicity of fluoride is so great that the 'safe' level has been set at just 1.5 parts per million, while the 'recommended' level of public water fluoridation is currently set in the range 0.6-0.8 parts per million. The scientific establishment accepts that, where the dosage routinely exceeds 1.5 parts per million, adverse health effects may be expected. But how does this 'one size fits all' approach work for all individuals in a population when account is taken of the many factors that affect absorption? How does it take account of individual susceptibility? The answer – it doesn't.

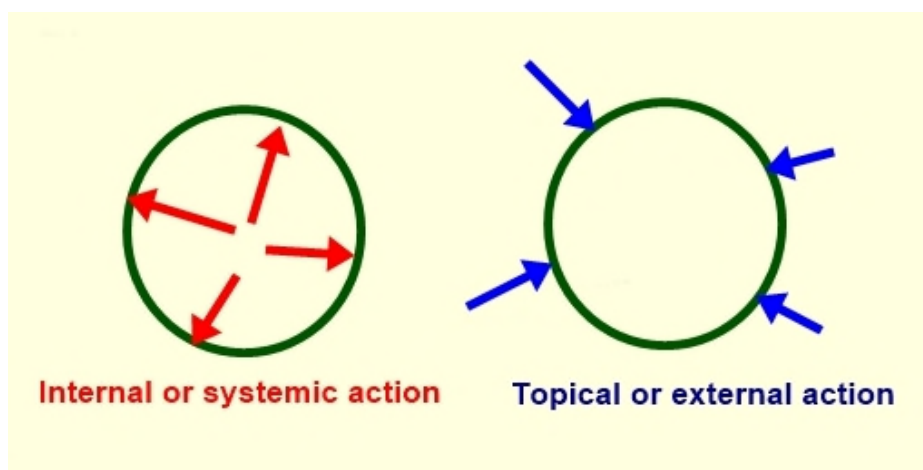
A person whose kidney does not function normally will absorb fluorine above the 'safe' dosage level, as will any chronically ill person whose immune system is below par. A person with a high fluid intake – such as an athlete, a diabetic, or an infant fed on reconstituted formula milk – will exceed the 'safe' level, as will anyone who consumes food that already contains the 'safe' level of fluorine. The dosage level of 1.5 ppm has been set by reference to adults only. The corresponding 'safe' level for an infant in the womb, a newborn, or a young child is unknown. It should be remembered that a newborn baby does not have a fully functioning immune system but relies for several months on the antibodies supplied by his or her mother. Just how effectively will its little body dispose of excess fluoride? We don't know. Or what effect will the fluoride ions have on its neurological development? Again, we don't know.



## Naturally occurring sources of fluoride

There is also another important factor which the supporters of fluoridation are reluctant to highlight. This is the question of naturally occurring fluoride and its impact on human health. They like to argue that, since fluoride is found in concentrations exceeding 1.5 ppm in ground water in certain parts of the world, it should be regarded as 'natural' when ingested in minute quantities. In fact the WHO even defines fluorine as an essential nutrient, much like a vitamin. No matter how one looks at it, this is absurd. There is no scientific evidence whatever to suggest that fluoride is a nutrient in any sense of the term.

Fluoride simply has the freakish property of slowing the rate of tooth decay in humans by a small degree. It achieves this, not by supplying the body with an essential nutrient, but by interfering topically with the mineralization of tooth enamel and hampering the proliferation of acid-forming bacteria by interfering with their enzymes. It does this because it is poisonous and because it is highly reactive. There is nothing nutritional about this activity. (We will return to the topical action of fluoride in a moment.)



Since fluoride occurs above the so-called 'safe' level in ground water in certain geographical regions, the proponents of fluoridation try to maintain that its impact on the human body is identical in those circumstances with its impact via fluoridation. But this has never been proven. Many studies have shown that the rate of absorption of fluoride in humans, as well as its deposition in soft tissue, is affected in part by its chemical structure. It can bind into molecular forms in an extraordinary number of ways and may not necessarily have the same effect in its natural forms as it has when delivered via the standard fluoridation protocol known as hydrofluorosilicic acid ( $H_2SiF_6$ ). This substance releases free fluoride ions which bond easily with virtually any other element or compound in the human body. All they need is a positively charged ion to latch on to. Generally speaking naturally occurring fluoride does not appear to have this level of potency. The Fluoride Total Diet Study 2014-2016 (Dublin, 2018), which we have already cited, confirmed this:



“In this study, it was also assumed that fluoride present in food is 100% bioavailable to the human body, which has been shown to not always be the case. This is because the extent of absorption is influenced by concomitant food intake, stomach acidity and the chemical form of fluoride (Cerklewski, 1997; Trautner and Einwag, 1989; Warneke and Setnikar, 1993; Ekstrand and Ehrnebo, 1979; Patz *et al*, 1977; Shulman and Vallejo, 1990; Chan, 2014).” [p.33] [*emphasis added*]

### **The fluoride ‘mechanism’**

We will now address a factor which, if it had been discussed at an earlier stage, would have made every subsequent argument superfluous. This factor is so remarkable and so detrimental to the ‘science’ of fluoridation that, by itself, it completely repudiates the arguments that have been used to justify it.

When it was first introduced in 1945, fluoridation was believed to deliver a therapeutic benefit by its absorption into the human body and its subsequent availability, presumably via the bloodstream, to remineralize dental enamel. This proposed mechanism went unchallenged for decades. It is now known to be false. The so-called therapeutic benefit of fluoride is entirely topical, being conferred by the action of fluoride ions on the outer surface of tooth enamel and by its impact on acid-producing bacteria in the mouth. Its value, internally, is NIL.

How do we know? Well, we should have suspected this as far back as 1972, if not earlier. To its shame the Fluoridation Forum Report (2002) stated the following:

#### **Fluoride Mouth-Rinsing**

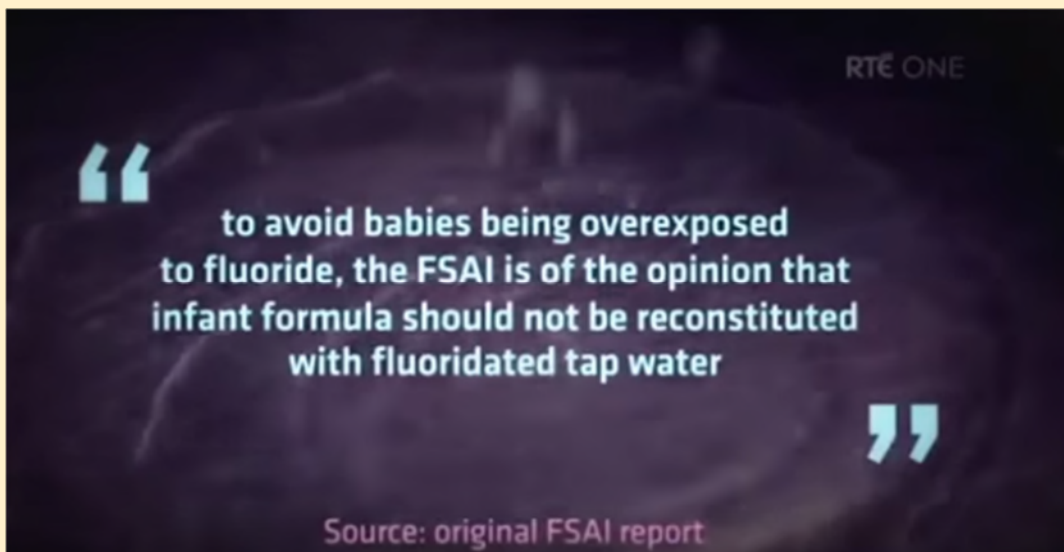
Daily, weekly and fortnightly fluoride mouth-rinsing schemes have been used as public health and individual based programmes. These programmes have been shown to be effective. Currently in Ireland there are approximately 30,000 children in 500 schools participating in fortnightly mouth-rinsing programmes.

It has been shown that these mouth-rinsing programmes are almost as effective as water fluoridation. However, since they are school-based they are not effective in older age groups. Also the cost effectiveness of these programmes is questionable when compared with water fluoridation.

One may need to read this twice! The experts admitted in 2002 that water fluoridation is completely unnecessary, that the action is topical and can be achieved just as easily by mouth-rinsing every two weeks. They also admit that the target group – children whose teeth are still erupting and in formation – can be treated separately without having to medicate the entire nation!

## Cover-up

RTE television broadcast a program on water fluoridation on 7 October, 2013, in which it revealed that the Fluoridation Forum 2002 deliberately suppressed a recommendation by the Scientific Committee of the Food Safety Authority of Ireland (FSAI) that fluoridated water not be used to reconstitute infant formula. Here is a screen shot from the program:



This important recommendation was ignored by the Forum and its existence came to public attention **ONLY** when concerned citizens obtained copies of the relevant minutes under the Freedom of Information Act.

The FSAI subsequently withdrew its recommendation, maintaining that it had been included in its report before the views of all members of the Scientific Committee had been obtained.

In its issue of June/July 2012, *The Journal of the Irish Dental Association* – which supports water fluoridation – reported as follows on a study conducted in Fermoy, Co Cork in the early 70s:

#### **The Fermoy Mouth Rinse Study – 1970-1974**

The special unit in the Cork Dental School was also charged with investigating other methods of bringing the benefits of fluoride to populations where water fluoridation was not feasible. The Fermoy mouth rinse study commenced in 1970 (Collins and O'Mullane, 1972). It was designed to test the hypothesis that a fortnightly two-and-a-half minute rinse with a 0.2% solution of sodium fluoride would reduce the incidences of dental caries in children aged seven, eight, nine and 10 attending primary schools in Fermoy, Co. Cork, which was a non-fluoridated area at the time.

A pre-baseline dental status examination of the consenting children was carried out in April 1970, in which the teeth present were recorded. Caries was not recorded at this examination. Four months after this examination a similar examination was carried out on the same children, in which newly erupted teeth, i.e. teeth that erupted during the four-month period, were recorded. Clinical and radiographic caries examinations were undertaken using criteria based on those described by Backer Dirks *et al.* (1950). Children were then allocated to study and control groups on the basis of these newly erupted teeth so that an equal number of comparable teeth were included in each group. Teeth erupting during the trial were also noted and the incidence of caries in these teeth was also compared. A total of 74 rinsing sessions were conducted during the four-year period of the study. The rinsing sessions and subsequent examinations were double blind. Children in the study group rinsed with 10ccs of a 0.2% solution of sodium fluoride and children in the control group rinsed with 10ccs of distilled water.

The results showed a highly significant reduction in the incidence of dental caries in newly erupted teeth in the study group over the control group over the four-year period of the study (Mageean and Holland, 1977).

So, the Minister of Health in Ireland has known for decades that water fluoridation is completely unnecessary, that a perfectly safe alternative exists, and that the mass medication of the general population is little more than a social experiment with no scientific justification whatever.

## **Smoke and Mirrors = Deception**

The Fluoridation Forum (2002) tried to get around this by cynically suggesting that fluoride may have some, as yet unproven, systemic value:

“The mode of action of fluoride in preventing and controlling dental decay has been clarified in recent years. Researchers agree that the anti-caries effects of fluoride are almost exclusively, but not necessarily entirely, topical. The possibility of a systemic effect on dental decay is less clear and is still being investigated.” [p.104]

This is all smoke and mirrors, not science. The people of Ireland are being fobbed off in a most despicable manner.

There is now a real possibility that the government of Ireland will be sued for exposing the public, and particularly our children, to a fraudulent and blatantly unscientific program of mass medication, and in doing so risking harm to the general population and misleading the public as to the true nature of water fluoridation.



## **General Health in Republic of Ireland v Northern Ireland**

In 2001 the National Institute of Health in Ireland published a valuable report outlining the statistical disparities between the general health of the populations of Northern Ireland (which is not fluoridated) and the Republic of Ireland. A comparison was also made with a combined bloc of 15 EU Member States (which are over 97% non-fluoridated) – Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.



Under the title *Inequalities in Mortality 1989-1998*, the study compared official statistics of mortality using the European Shortlist Cause of Death Categories. [All mortality rates are annual rates expressed as the number of deaths per 100,000 of the population per year.]

It revealed two major disease categories where the incidence in the Republic of Ireland was remarkably higher than the rate in Northern Ireland – see [table](#) below. It also exceeded in both categories the incidence in the bloc of 15 EU countries. The population in the north of the island of Ireland is genetically very similar (if not broadly identical) to the population in the south. Both regions also have a very similar climate and diet, and very similar systems of health care. The most obvious difference between the two is that the public water supply in the Republic is fluoridated, while the supply in the North is not.

		Northern Ireland %	EU-15 %	Republic of Ireland %
Diseases of the Nervous System and the Sense Organs [eyes & ears]	Male	12.8	15.8	18.4
	Female	9.9	11.2	14.6
Diseases of the Musculoskeleton System / Connective Tissue	Male	1.7	2.3	3.7
	Female	2.4	3.4	5.6

While the report made no reference to water fluoridation, it is reasonable to assume that the fluoridation of the water supply in the Republic may have contributed to the marked disparity in mortality between the two regions under these categories. We would also note that, while the figures relate only to mortality, they imply a significantly higher level of morbidity in the Republic within these disease categories. In other words, compared to Northern Ireland, far more people in the Republic are falling ill and suffering accordingly, perhaps for many years or decades, before they eventually succumb to these diseases. We are discussing, not just cause of death, but overall quality of life.

In light of this we cite once again a passage from the HRB report (2015) which confirms that many in the medical profession in Ireland already suspect that water fluoridation is causing the high levels of rheumatoid arthritis and osteoarthritis that the country has been witnessing in recent decades:

Concerns about fluoride's effects on the musculoskeletal system focus on bone mass density, skeletal fluorosis and bone fracture. Fluoride is readily incorporated into the crystalline structure of bone, and accumulates over time. Fluoride increases bone density and appears to exacerbate the growth of osteophytes present in the bone and joints, resulting in joint stiffness and pain. [p.28]

### **Report of the U.S. National Research Council 2006**

In 2006 the National Research Council in the U.S. published a lengthy report – 469 pages – which examined the water fluoridation standards approved by the Environmental Protection Agency: **Fluoride in Drinking Water: A Scientific Review of EPA's Standards.**

The Council described its work as follows:

The **National Research Council** was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine.

It is a prestigious organization with a reputation for scientific excellence and objectivity. It took the unusual step of circulating its report in draft form to a number of independent scientists for "candid and critical comments":

"This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the NRC's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge."

We present below some verbatim extracts from the report under a range of headings.  
[Read them and weep:](#)

### **Human Cognitive Abilities**

In assessing the potential health effects of fluoride between 2-4 mg/L, the committee found three studies of human populations exposed at those concentrations in drinking water that were useful for informing its assessment of potential neurologic effects. These studies were conducted in different areas of China, where fluoride concentrations ranged from 2.5-4 mg/L. Comparisons were made between the IQs of children from those populations with children exposed to lower concentration of fluoride ranging from 0.4-1 mg/L. The studies reported that while modal IQ scores were unchanged, the average IQ scores were lower in the more highly exposed children. This was due to fewer children in the high IQ range. While the studies lacked sufficient detail for the committee to fully assess their quality and their relevance to U.S. populations, the consistency of the collective results warrant additional research on the effects of fluoride on intelligence. Investigation of other mental and physiological alterations reported in the case study literature, including mental confusion and lethargy, should also be investigated. [p.185]

### **Fluorosilicates**

As noted in Chapter 2, exposure to fluorosilicates could occur under some conditions. There are reports that such chemicals enhance the uptake of lead into the body and brain, whereas NaF does not. Further research is needed to elucidate how fluorosilicates might have different biological effects from fluoride salts. [p.186] [Note: The Irish fluoridation process produces fluorosilicates.]

### **Neurochemical and Biochemical Changes**

Lipids and phospholipids, phosphohydrolases and phospholipase D, and protein content have been shown to be reduced in the brains of laboratory animals subsequent to fluoride exposure. The greatest changes were found in phosphatidylethanolamine, phosphotidylcholine, and phosphotidylserine. Fluorides also inhibit the activity of cholinesterases, including acetyl-cholinesterase. Recently, the number of receptors for acetylcholine has been found to be reduced in regions of the brain thought to be most important for mental stability and for adequate retrieval of memories.

...Not only do fluorides affect transmitter concentrations and functions but also are involved in the regulation of glucagons, prostaglandins, and a number of central nervous system peptides, including vasopressin, endogenous opioids, and other hypothalamic peptides...

Fluorides also increase the production of free radicals in the brain through several different biological pathways. These changes have a bearing on the possibility that fluorides act to increase the risk of developing Alzheimer's disease. Today, the disruption of aerobic metabolism in the brain, a reduction of effectiveness of acetylcholine as a transmitter, and an increase in free radicals are thought to be causative factors for this disease. More research is needed to clarify fluoride's biochemical effects on the brain. [p.186]

### **Effects on the Endocrine System**

...Although fluoride does not accumulate significantly in most soft tissue (as compared to bones and teeth), several older studies found that fluoride concentrations in thyroid tissue generally exceed those in most other tissue except kidney (e.g., Chang et al. 1934; Hein et al. 1954, 1956); more recent information with improved analytic methods for fluoride was not located... [p.190]

### **Pineal Gland Calcification**

...As with other calcifying tissues, the pineal gland can accumulate fluoride (Luke 1997, 2001). Fluoride has been shown to be present in the pineal glands of older people (14-875 mg of fluoride per kg of gland in persons aged 72-100 years), with the fluoride concentrations being positively related to the calcium concentrations in the pineal gland, but not to the bone fluoride, suggesting that pineal fluoride is not necessarily a function of cumulative fluoride exposure of the individual (Luke 1997, 2001). Fluoride has not been measured in the pineal glands of children or young adults, nor has there been any investigation of the relationship between pineal fluoride concentrations and either recent or cumulative fluoride intakes. [p.212]

### **Discussion (Pineal Function)**

Whether fluoride exposure causes decreased nocturnal melatonin production or altered circadian rhythm of melatonin production in humans has not been investigated. As described above, fluoride is likely to cause decreased melatonin production and to have other effects on normal pineal function, which in turn could contribute to a variety of effects in humans. Actual effects in any individual depend on age, sex, and probably other factors, although at present the mechanisms are not fully understood. [p.214]

### **Discussion (Other Endocrine Function)**

More than one mechanism for diabetes or impaired glucose tolerance exists in humans, and a variety of responses to fluoride are in keeping with variability among strains of experimental animals and among the human population. The conclusion from the available studies is that sufficient fluoride exposure appears to bring about increases in blood glucose or impaired glucose tolerance in some individuals and to increase the severity of some types of diabetes. In general, impaired glucose metabolism appears to be associated with serum or plasma fluoride concentrations of about 0.1 mg/L or greater in both animals and humans (Rigalli et al. 1990, 1995; Trivedi et al. 1993; de al Sota et al. 1997). In addition, diabetic individuals will often have higher than normal water intake, and consequently, will have higher than normal fluoride intake for a given concentration of fluoride in drinking water. An estimated 16-20 million people in the U.S. have diabetes mellitus (Brownlee et al. 2002; Buse et al. 2002; American Diabetes Association 2004; Chapter 2); therefore, any role of fluoride exposure in the development of impaired glucose metabolism or diabetes is potentially significant. [p.217]

### **Thyroid Function**

The recent decline in iodine intake in the United States (CDC 2002d; Larsen et al. 2002) could contribute to increased toxicity of fluoride for some individuals. [p.218]

### **Parathyroid Function**

In humans, depending on the calcium intake, elevated concentrations of PTH [parathyroid hormone] are routinely found at fluoride exposures of 0.4-0.6 mg/kg/day and at exposures as low as 0.15 mg/kg/day in some individuals (Table 8-2)...

As with calcitonin, it is not clear whether altered parathyroid function is a direct or indirect result of fluoride exposure. An indirect effect of fluoride by causing an increased requirement for calcium is probable, but direct effects could occur as well. Also, although most individuals with skeletal fluorosis appear to have elevated PTH, it is not clear whether parathyroid function is affected before development of skeletal fluorosis or at lower concentrations of fluoride exposure than those associated with skeletal fluorosis. [p.221]



### **[Response to Fluoride Exposures]**

Variability in response to fluoride exposures could be due to differences in genetic background, age, sex, nutrient intake (e.g., calcium, iodine, selenium), general dietary status, or other factors. Intake of nutrients such as calcium and iodine often is not reported in studies of fluoride effects. The effects of fluoride on thyroid function, for instance, might depend on whether iodine intake is low, adequate, or high, or whether dietary selenium is adequate. Dietary calcium affects the absorption of fluoride (Chapter 3); in addition, fluoride causes an increase in the dietary requirements for calcium, and insufficient calcium intake increases fluoride toxicity. Available information now indicates a role for aluminum in the interaction of fluoride on the second messenger system; thus, differences in aluminum exposure might explain some of the differences in response to fluoride exposures among individuals and populations.

The clinical significance of fluoride-related endocrine effects requires further attention. For example, most studies have not mentioned the clinical significance for individuals of hormone values out of the normal range, and some studies have been limited to consideration of “healthy” individuals. As discussed in the various sections of this chapter, recent work on borderline hormonal imbalances and endocrine-disrupting chemicals indicates that significant adverse health effects, or an increased risk for development of clearly adverse health outcomes, could be associated with seemingly mild imbalances or perturbations in hormone concentrations (Brucker-Davis et al. 2001)... In summary, evidence of several types indicates that fluoride affects normal endocrine function or response; the effects of the fluoride-induced changes vary in degree and kind in different individuals. Fluoride is therefore an endocrine disruptor in the broad sense of altering normal endocrine function or response, although probably not in the sense of mimicking a normal hormone. [p.222-3]

Because fluoride is a known inhibitor of several metabolic intracellular enzymes, it is not surprising that, at very high exposures, there is cell death and desquamation of the GI gut epithelium wall. [p.236]

### **The Renal System**

The kidney is the organ responsible for excreting most of the fluoride. It is exposed to concentrations of fluoride about five times higher than in other organs, as the tissue/plasma ratio for the kidney is approximately 5 to 1, at least in the rat (Whitford 1996). Kidneys in humans may be exposed to lower fluoride concentrations than in rats. Human kidneys, nevertheless, have to concentrate fluoride as much as 50-fold from plasma to urine. Portions of the renal system may therefore be at higher risk of fluoride toxicity than most soft tissues. [p.236]

Early water fluoridation studies did not carefully assess changes in renal function. It has long been suspected that fluoride, even at concentrations below 1.2 mg/L in drinking water, over the years can increase the risk for renal calculi (kidney stones). [p.236]

### **Cellular Immunity**

Fluoride, usually in the millimolar range, has a number of effects on immune cells, including polymorphonuclear leukocytes, lymphocytes, and neutrophils... Fluoride also augments the inflammatory response to irritants... There is no question that fluoride can affect the cells involved in providing immune responses. [p.250]

Any sensible person would be unnerved by these scientific observations. They have been made by professionals who are fully familiar with the nature and health effects of fluoride – and, frankly, they are damning. Why this report has been largely ignored by the international community is impossible to fathom.

If we thread together just a few ‘quotable quotes’ from the above extracts, which show beyond all doubt the potentially poisonous impact of fluoride on human health, we are entitled to ask whether our government is insane (or merely grossly irresponsible) when it fluoridates the public water supply:

“the consistency of the collective results warrant additional research on the effects of fluoride on intelligence...There are reports that such chemicals [fluorosilicates] enhance the uptake of lead into the body and brain, whereas NaF does not...Not only do fluorides affect transmitter concentrations and functions but also are involved in the regulation of glucagons, prostaglandins, and a number of central nervous system peptides...Fluorides also increase the production of free radicals in the brain through several different biological pathways. These changes have a bearing on the possibility that fluorides act to increase the risk of developing Alzheimer’s disease....As with other calcifying tissues, the pineal gland can accumulate fluoride...fluoride is likely to cause decreased melatonin production and to have other effects on normal pineal function, which in turn could contribute to a variety of effects in humans...In general, impaired glucose metabolism appears to be associated with serum or plasma fluoride concentrations of about 0.1 mg/L or greater in both animals and humans...

therefore, any role of fluoride exposure in the development of impaired glucose metabolism or diabetes is potentially significant...fluoride causes an increase in the dietary requirements for calcium, and insufficient calcium intake increases fluoride toxicity...The clinical significance of fluoride-related endocrine effects requires further attention...Fluoride is therefore an endocrine disruptor in the broad sense of altering normal endocrine function or response, although probably not in the sense of mimicking a normal hormone...fluoride is a known inhibitor of several metabolic intracellular enzymes...[The kidney] is exposed to concentrations of fluoride about five times higher than in other organs...Fluoride also augments the inflammatory response to irritants... There is no question that fluoride can affect the cells involved in providing immune responses.”

**“Hide me from the secret counsel of the wicked; from the insurrection of the workers of iniquity... They encourage themselves in an evil matter: they commune of laying snares privily; they say, Who shall see them?” – Psalm 64**

## **CONCLUSION**

Fluoride is a potent neurotoxin which is harmful to human health. Even when ingested in seemingly miniscule amounts – less than 1 ppm – it can accumulate in the body and cause adverse health effects over time. Numerous peer reviewed studies have proven this to be the case. It has been shown to be implicated, either directly or indirectly, in a wide range of adverse health conditions including arthritis, diabetes, endocrine disorders, sleep disorders, neurological problems and, most disturbing of all, Alzheimer’s Disease. It interferes with intracellular enzymes, alters normal endocrine function, weakens the structural integrity of the bones, calcifies the pineal and other glands, places an excessive burden on the kidneys, affects blood glucose, and alters immune cells and immune system response. There are also indications that it may act synergistically with other toxins, such as lead, and magnify their effect. Despite the widespread use of prescription medications which contain fluorine molecules, there is virtually no clinical evidence to show that water fluoridation is not having a detrimental effect on the efficacy of these drugs or producing harmful metabolites. Several studies have also shown that water fluoridation can affect IQ levels.

The Irish authorities have examined the role of fluoride in the public water supply but have consistently downplayed the known adverse health effects of fluoride, mostly by questioning the methodology used in determining those effects and by setting a standard of evidence – conclusive proof of a causal connection between fluoridation and adverse health outcomes – which contrasts starkly with the paucity of evidence put forward by the authorities to prove that fluoridation is safe.

### **Irish Governments have been engaging in systematic deception**

The Irish government has also known for some time that the purported therapeutic benefit of fluoridation derives, not from the ingestion of fluoridated water, but almost exclusively from its topical application. They have also known for some time that oral rinsing with a mildly fluoridated solution of water every couple of weeks achieves virtually the same health outcome. So, even though the Minister for Health is aware that water fluoridation, and the concomitant mass medication of 70 percent of the Irish population, is entirely unnecessary, the Government has continued to add this toxic substance to the public water supply.

By any reckoning, this is a serious abuse of political power.

### **A scandalous disregard for the evidence**

Our paper has also shown that the claim that there is no proven causal connection between fluoridation and chronic ill health is FALSE. The report of the Health Research Board (2015) admitted that fluoridation will produce a build-up of fluoride in the bones which can result in “joint stiffness and pain” (arthritis). The comparative study of mortality rates in Ireland and Northern Ireland show that fluoridation is almost certainly implicated in the remarkably high incidence of certain disease categories in the Republic and responsible for higher rates of mortality. The report of the U.S. National Research Council (2006) noted a causal connection between fluoride and a range of adverse health effects, even where fluoride is in concentrations well within the approved ‘safe’ limit. It also outlined in some cases the likely biochemical mechanism that caused the adverse effect. The report of the Health Research Board (2015) also cited an important study in the U.K (Peckham *et al*, 2015) which showed that the incidence of hypothyroidism was twice as high in regions where the public water supply was fluoridated.

### **We call on the Minister and CMO to act responsibly**

We call on the Minister of Health and the Chief Medical Officer at the Department of Health to immediately terminate the fluoridation of the public water supply. They should be prepared to do this if for no other reason than to avoid the substantial future cost to the Exchequer from the lawsuits that are certain to be taken by aggrieved members of the public. The ‘science’ behind fluoridation is obviously bogus and the continuation of existing policy has no credible basis on health grounds, particularly as a perfectly satisfactory alternative exists (fortnightly oral rinsing).

We would point out that failure by the Minister and the CMO to act immediately and responsibly in this matter could leave them open before the courts to a charge of professional negligence.

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**Jeremy James**  
**Ireland**  
**March 12, 2019**

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