

# Fluoride in your Drinking Water May Be Damaging your Brain: Expert Testimony

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*The [fluoride](#) debate is changing, and fast, as more Americans are becoming aware of the known health risks of water fluoridation. City councils across the country are beginning to give their residents a choice when it comes to fluoridated drinking water, with many adding fluoridation measures to upcoming ballots.*

Fortunately, Americans are using their votes to keep this highly toxic fertilizer-industry byproduct *out* of their drinking water (the fluoride added to municipal water supplies is a toxic byproduct from the fertilizer industry—a rarely discussed fact!).

Dallas is among the latest US cities considering whether or not to renew a three-year, \$1.8-million contract that provides their drinking water with fluoride. Set to expire January 1, 2015, if Dallas ends fluoridation, it will become the largest city in the US to stop fluoridating its water.<sup>1</sup>

## **Dallas is on the Verge of Ending Water Fluoridation**

Earlier this year, in May, there was a shift in attitudes in the Dallas city council meeting regarding water fluoridation. Despite the fact that anti-fluoridation activist Regina Imburgia had spoken to the Dallas city council several times before with no response, at the May meeting three of the 15 council members finally agreed with Imburgia's message that water fluoridation in the city deserves a closer look.

The media picked up the story with the *Dallas Observer* covering the issue at length, in both column and blog formats, not only citing a recent concerning study about fluoride health risks (see below) but also calling out *Dallas Morning News* columnist Jacquielynn Floyd for engaging in unprofessional behavior (like name-calling) against anti-fluoride activists.

Then, on June 11, retired chemistry professor Paul Connett, director of the Fluoride Action Network (FAN) testified before the Dallas council. His 3-minute (plus questions) expert testimony can be seen in the video above (and it's time well spent if you're new to the issue of water fluoridation). Dr. Connett said:

"I was impressed by the willingness of the councilors to listen to me and to ask important questions. This augers well because we have to beat this nonsense one open mind at a time.

I was also very impressed by the local organizers. In addition to my testimony, with only a few days notice, they were able to pull together a public meeting,

which over 40 people attended including 3 local dentists.

Like many other cities right now the decision to end fluoridation in Dallas may well hinge on events happening elsewhere, like the potential for a legal challenge to fluoridation in Canada as outlined by a [leading lawyer in Canada before the Peel regional council](#) in Ontario on June 26 and the ending of mandatory fluoridation in Israel.”

During his testimony, Dr. Connett made a strong case for why dentistry should be done in the dental office... not via your water supply, and as he stated, water fluoridation is “the height of arrogance”:<sup>2</sup>

“Organized dentistry, which includes the American Dental Association, the Oral Health Division of the Centers for Disease Control and Prevention and state dental directors, is the only health profession that seeks to deliver its services via the public’s water supply.

The practice of artificial water fluoridation is the height of arrogance when one considers the following undisputed facts and scientifically supported arguments.”

## **12 Reasons Why Water Fluoridation Must Be Challenged**

Dr. Connett, who co-authored the book [The Case Against Fluoride](#), is recognized worldwide as a leader in the movement to eliminate [fluoride](#) from municipal water supplies, and I’m pleased to be working with him to achieve this goal. He recently compiled a comprehensive and eye-opening list of reasons why water fluoridation must be challenged. Here are some of the highlights:<sup>3</sup>

Fluoride is not a nutrient; no biochemical process in the human body <i>needs</i> fluoride	The level of fluoride in a mother's milk is exceedingly low. Formula-fed infants receive up to 175-250 more fluoride than a breast-fed infant
Once fluoride is added to the water supply, there is no way of controlling the dose; it goes to everyone regardless of age, weight, health, need, or nutritional status	Fluoride accumulates in bone and other calcified tissues over a lifetime; early symptoms of fluoride poisoning of the bones are identical to arthritis, and fluoride accumulation may make bones brittle and prone to fracture
The addition of fluoride to the public water supply violates the individual's right to informed consent to medical or human treatment	Fluoride is known to have toxic properties at low doses
Children in fluoridated countries are being over-exposed to fluoride as demonstrated by the very high prevalence of dental fluorosis; according to the CDC, 41 percent of American children aged 12-15 have some form of dental fluorosis	The effectiveness of swallowing fluoride to reduce tooth decay has never been demonstrated by a randomized control trial
The evidence that fluoridation or swallowing fluoride reduces tooth decay is very weak	Fluoridation is designed to treat a disease (dental caries) but has never been approved by the US Food and Drug Administration (FDA); the FDA classifies fluoride as an "unapproved drug"
Most dental authorities now agree that the predominant benefit of fluoride is <i>topical</i> , not systemic	The vast majority of countries neither fluoridate their water nor their salt, but according to the World Health Organization, tooth decay in 12-year-olds is coming down as fast, if not faster, in non-fluoridated countries as it is in fluoridated countries

### **Fluoride Added to List of Chemicals That Cause 'Brain Drain' (Along with Mercury and Lead)**

In 2006, researchers from Harvard School of Public Health and Icahn School of Medicine at Mount Sinai did a systematic review and identified five industrial chemicals as

developmental neurotoxicants. This included unquestionable poisons like lead, methylmercury, polychlorinated biphenyls, arsenic, and toluene. Since then, they've documented six *additional* developmental neurotoxicants and have added them to the list of what are now 11 known industrial chemicals that harm brain development in human fetuses and infants.<sup>4</sup> One of the recently added neurotoxicants is fluoride, and one of the study's authors has previously said:<sup>5</sup>

“Fluoride seems to fit in with lead, mercury, and other poisons that cause chemical brain drain... The effect of each toxicant may seem small, but the combined damage on a population scale can be serious, especially because the brain power of the next generation is crucial to all of us.”

The debate over the dangers of fluoride has been ongoing for more than six decades, despite the fact that study after study has confirmed that fluoride is a dangerous, toxic poison that bio-accumulates in your body while being ineffective at preventing dental decay. So what exactly does fluoride do to your brain?

There are 37 human studies linking fairly modest fluoride exposures with reduced intelligence (nine of these studies found lowered IQ at less than 3 ppm in the water) and 12 human studies linking fluoride with neurobehavioral deficits. There are also three human studies linking fluoride exposure with impaired fetal brain development,<sup>6</sup> and approximately 100 animal studies linking it to brain damage. This includes such effects as:<sup>7</sup>

Reduction in nicotinic acetylcholine receptors	Damage to the hippocampus	Formation of beta-amyloid plaques (the classic brain abnormality in Alzheimer's disease)
Reduction in lipid content	Damage to the Purkinje cells	Exacerbation of lesions induced by iodine deficiency
Impaired antioxidant defense systems	Increased uptake of aluminum	Accumulation of fluoride in the pineal gland

### Check Out the Truth: Drinking Fluoride Doesn't Prevent Cavities

Even if you were willing to overlook the proven fact that fluoride is a poison to the human body, would you *still* want to drink fluoride if it wouldn't protect your teeth? The truth is, it won't. Fluoride advocates often claim that the reduction in tooth decay that's occurred since the 1950s is a benefit of fluoridated water, but the facts just don't add up. For example, in 1999 the US Centers for Disease Control and Prevention (CDC) claimed that dental caries declined precipitously during the second half of the 20th Century.

But what they failed to mention is that tooth decay rates “precipitously declined” in ALL Western nations, regardless of whether or not fluoridation was used – and most of those countries did NOT fluoridate!<sup>8</sup> According to World Health Organization (WHO) data, the US, which fluoridates about two-thirds of public water supplies, actually has *higher* rates of tooth decay than many countries that do not fluoridate their water, including Denmark, the

Netherlands, Belgium, and Sweden.<sup>9</sup> Furthermore, if fluoride were effective in preventing caries, you would expect to see an increase in tooth decay when fluoridation is stopped. Yet, this is not what we see! The following demographic studies and fluoridation trends make it clear that fluoridation has very little to do with whether or not you develop cavities.

- In Japan, fluoridation has been virtually nonexistent since the 1970s, yet rates of dental caries have declined since that time.<sup>10</sup>
- In the town of Tiel in the Netherlands, water fluoridation was discontinued in 1973, and by 1993, rates of dental caries had declined.<sup>11</sup>
- In the town of Kuopio, Finland, water fluoridation was stopped after 1992. In 1995 and 1998, dental caries had either decreased or stayed the same.<sup>12</sup>
- In two towns in former East Germany, a significant fall in the prevalence of dental caries was seen in the 20 years following cessation of water fluoridation.<sup>13</sup>
- In Canada, “the prevalence of caries decreased over time in the fluoridation-ended community while remaining unchanged in the fluoridated community.”<sup>14</sup>

### **Fluoride Has Nothing to Do with the Underlying Causes of Tooth Decay**

Dental caries are caused by demineralization of your teeth (enamel and dentin) by the acids formed during the bacterial fermentation of dietary sugars. Demineralization is countered by the deposit of minerals from your saliva, or remineralization, which is a slow process. Enthusiasts report that fluoride prevents dental caries by enhancing mineralization. However, dental caries are not caused by a lack of fluoride, just as depression is not caused by a lack of Prozac. Some of the true primary causes of tooth decay cited in the literature include:

- Consistent use of [refined sugar](#), sugary soft drinks, and processed foods in general
- Children going to bed with a bottle of sweetened drink in their mouth, or sucking at will from such a bottle during the day
- Poor dental hygiene and poor access to and utilization of dental health services, usually related to socioeconomic status
- Mineral deficiencies, like [magnesium](#), which can weaken bones and teeth<sup>15</sup>
- More than 600 medications promote tooth decay by inhibiting saliva

It's often said that fluoride helps to re-mineralize your teeth and make them stronger, but even this must be questioned. A groundbreaking study published in the journal *Langmuir* uncovered that the fluorapatite layer formed on your teeth from fluoride is a mere six nanometers thick<sup>16</sup> — you'd need 10,000 of these layers to get the width of a strand of your hair! Scientists now question whether this ultra-thin layer can actually protect your enamel and provide any discernible benefit, considering the fact that it is quickly eliminated by simple chewing. They wrote: “...it has to be asked whether such narrow... layers really can act as protective layers for the enamel.”

### **More Than 100 US Communities Have Ditched Water Fluoridation**

Since 2009, about 130 communities have stopped water fluoridation. Canada has dropped from about 60 percent of the population drinking fluoridated water down to about 32-33

percent. Victories have also been logged in Australia, Israel, New Zealand, and across the US. The latest fluoride-free victories include:<sup>17</sup>

1. **Wellington, Florida:** After hours of debate and testimony from medical experts and residents, council members voted to end 14 years of fluoridation. A number of pro-fluoride dentists are unfortunately working to overturn the council's vote, but it's still a victory for now.
2. **Amherst County, Virginia:** The Service Authority Board voted to discontinue fluoridation because of conflicting opinions on what constitutes "optimal" levels of fluoride. According to FAN, "Several board supervisors felt that the additive was unnecessary and a waste of resources."
3. **Wood Village, Oregon:** The Woodville City Council was considering adding fluoride to the city's drinking water, but after polling residents found that 100% of respondents were against it. They have since ended their fluoridation discussions.
4. **Sebastopol, California:** City Councilors voted unanimously against fluoridation in Sonoma County because of concerns the fluoride could leach into their groundwater from surrounding communities, putting residents at risk.
5. **Bantry, Ireland:** Town Councilors voted unanimously in favor of a resolution calling for an immediate end to fluoridation throughout Ireland. Two other towns—Skibbereen and Clonakitty—also passed similar resolutions in 2013. Support for this historic vote was provided by the local group West Cork Fluoride Free.
6. **Boyer City, Michigan:** In early May 2014, city commissioners voted 3-2 to end more than 40 years of fluoridation for the town's approximately 4,000 residents. Commissioner Gene Towne summed up the council's decision, saying: "It comes down to choice. I don't see how you can control the dosage (of fluoride that people ingest) if it's in everything. If there's a chance that it could cause any health problems... this should all come down to your choice."
7. **Buffalo and Union, Missouri:** In May 2014, Alderman voted to end a decade of fluoridation, saying the additive damaged equipment, city trucks, and was not economical. Also in May, councilors in **Union, Missouri** voted 7-1 to end fluoridation after the city's public service committee recommended the city not repair fluoride injection equipment destroyed by the corrosive additive. According to the city engineer, "It's an acid and it eats the pipes. Employees are handling it and they don't want to be."

Do you want to add *your* city to this growing list? Stay tuned, as the Fluoride Action Network has a game plan to END water fluoridation, both in the US and Canada. Clean pure water is a prerequisite to optimal health. Industrial chemicals, drugs, and other toxic additives really have no place in our water supplies. So, please, support the anti-fluoride movement by making a donation to the [Fluoride Action Network today](#). You might also wish to attend FAN's Fifth Citizen's Conference on Fluoride to be held in Washington, DC Sept 5-8. I will be speaking at this on Sept 7 (for more details contact [ellen@fluoridealert.org](mailto:ellen@fluoridealert.org)).

### **Join the Fight to Get Fluoride Out of Drinking Water**

There's no doubt about it: *fluoride should not be ingested*. Even scientists from the EPA's National Health and Environmental Effects Research Laboratory have classified fluoride as a "chemical having substantial evidence of developmental neurotoxicity." Furthermore,

according to the Centers for Disease Control and Prevention (CDC), 41 percent of American adolescents now have dental fluorosis—unattractive discoloration and mottling of the teeth that indicate overexposure to fluoride. Clearly, children are being overexposed, and their health and development put in jeopardy. *Why?*

At least when it comes to topical application, you have a choice. You can easily buy fluoride-free toothpaste and mouthwash. But you're stuck with whatever your community puts in the water, and it's very difficult to filter out of your water once it's added. Many do not have the resources or the knowledge to do so.

The only real solution is to stop the archaic practice of water fluoridation in the first place. Fortunately, the Fluoride Action Network has a game plan to END water fluoridation, both in the United States and Canada. Clean pure water is a prerequisite to optimal health. Industrial chemicals, drugs and other toxic additives really have no place in our water supplies. So, please, support the anti-fluoride movement by making a donation to the Fluoride Action Network today.

<sup>1</sup> [FluorideAlert.org June 9, 2014](#)

<sup>2</sup> [Food Consumer May 5, 2014](#)

<sup>3</sup> [Food Consumer May 5, 2014](#)

<sup>4</sup> [The Lancet Neurology March 2014](#)

<sup>5</sup> [Dallas Observer May 8, 2014](#)

<sup>6</sup> [Fluoride Action Network, Brain](#)

<sup>7</sup> [Fluoridealert.org, Brain Effects](#)

<sup>8</sup> [Fluoride Action Network](#)

<sup>9</sup> [Fluoride Action Network](#)

<sup>10</sup> [Eur J Oral Sci August 1996](#)

<sup>11</sup> [Caries Research 1993](#)

<sup>12</sup> [Caries Research 2000](#)

<sup>13</sup> [Community Dentistry and Oral Epidemiology October 2000](#)

<sup>14</sup> [Fluoride Alert](#)

<sup>15</sup> [Weston Price Foundation September 23, 2010](#)

<sup>16</sup> [Langmuir. 2010 Dec 21;26\(24\):18750-9](#)

<sup>17</sup> [Fluoride Action Network February 7, 2014](#)

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