The Lawsuit That Could End Water Fluoridation in the US

Source: Dr. Mercola

by **Dr. Mercola**
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Story at-a-glance

- Fluoride Action Network (FAN) is among a coalition of environmental, medical and health groups suing the U.S. Environmental Protection Agency (EPA) to ban artificial water fluoridation
- FAN has recently won two major legal victories, defeating efforts by the EPA to dismiss the case and limit the evidence that can be considered
- Fluoride is an endocrine-disrupting chemical linked to thyroid disease, impaired memory, attention-deficit hyperactive disorder and lowered IQ in children
- A long-term study sponsored by the U.S. National Institute of Environmental Health Sciences found a correlation between fluoride exposure in utero and subsequent reductions in cognitive function
- As the level of fluoride increased, IQ decreased — across the full range of exposures — which means there's no level at which there is no detrimental effect on cognition; it's only a matter of degree

Since 1945, it's been claimed that adding fluoride to drinking water is a safe and effective way to improve the public's dental health. Since then, many have bought into this fallacy hook, line and sinker, despite overwhelming evidence to the contrary.

One of the reasons why it's so important to eliminate water fluoridation is because this chemical is very difficult to remove. You can remove some or a significant amount using distillation, reverse osmosis and special filtration media, but the vast majority of water filters that people have access to will not remove fluoride. So, you might filter your water, thinking you've purified it, but you haven't eliminated fluoride.

This is particularly problematic for low-income parents of small children, who need to use fluoride-free water for mixing baby formula. Fluoridated water contains 250 times more fluoride than mother's milk, significantly raising the child's risk of fluorosis and other health problems, including developmental and neurological problems.

Michael Connett, an attorney specializing in toxic tort practice, is the son of Paul Connett, Ph.D., toxicologist, environmental chemist and the founder and former director of the Fluoride Action Network (FAN) – an organization that has fought to remove toxic fluoride from the water supply across the world. Over the past 18 years, FAN has facilitated the removal of fluoride from the water supplies of hundreds of communities in North America, Canada and Europe.

In the featured Newsbud video report, Paul and Michael discuss the known dangers of fluoride, and how FAN is now taking on government by suing the Environmental Protection Agency (EPA) to end the deliberate addition of fluoride to drinking water in the U.S.

Water Fluoridation Jeopardizes Public Health

Scientific investigations have revealed fluoride is an endocrine-disrupting chemical,[1] and have linked it to the rising prevalence of thyroid disease,[2] which in turn can contribute to obesity, heart disease, depression and other health problems. In fact, in the '50s and '60s, fluoride was used as a drug to lower thyroid activity in patients with overactive thyroid.

Even more importantly, fluoride has been identified as a developmental neurotoxin that impacts short-term and working memory, and contributes to rising rates of attention-deficit hyperactive disorder[3] and lowered IQ in children.[4] Many of these studies have found harm at levels within the range, or precariously close to, the levels millions of American children receive on a regular basis. In all, there are more than 300 animal and human studies demonstrating fluoride can cause:[5]

- Brain damage, especially when coupled with iodine deficiency or excessive levels of aluminum
- Reduced IQ
- Impaired ability to learn and remember
- Neurobehavioral deficits such as impaired visual-spatial organization
- Impaired fetal brain development

Government Study Confirms IQ Loss Following Prenatal Exposure

This evidence includes a long-term multimillion-dollar study[6,7,8,9] sponsored by the U.S. National Institute of Environmental Health Sciences (NIEHS), which was published last year. This study found a correlation between fluoride exposure in utero and subsequent reductions in cognitive function at the ages of 4 and 6 through 12.

The authors, hailing from several universities in Canada, the U.S. and Mexico, followed over 300 mother-child pairs in Mexico City for 12 years. The urine levels of the pregnant women in the study (0.5 to 1.5 mg/Liter), were basically identical to those found in pregnant women in the U.S. (0.6 to 1.5 mg/L). The mean level of fluoride in the urine of the mothers included in the study was 0.9 mg/L.

At these levels the authors reported a staggering loss of five to six IQ points. (From the low end of that range to the high end is a difference of 1 mg/L, which is what caused the five to six IQ-point difference in the children of the study mothers.) More specifically, each 0.5 mg/L increase in fluoride over 0.8 mg/L in the mother's urine was associated with a 2.5-point reduction in IQ and a 3.15-point reduction in general cognitive index scores in the child, leading the authors to conclude that:

> *"… higher prenatal fluoride exposure, in the general range of exposures reported for other general population samples of pregnant women and nonpregnant adults, was associated with lower scores on tests of cognitive function in the offspring at age 4 and 6-12 y[ears]."*

According to lead author Howard Hu, founding dean of the Dalla Lana School of Public Health at the University of Toronto, this is one of the largest, longest and most rigorously executed studies on fluoride and neurodevelopment ever conducted. While Mexico does not fluoridate drinking water, Mexicans are still exposed to many other sources of fluoride, including naturally-occurring fluoride in water, fluoridated salt, dental products, supplements, pesticides and tea.

Importantly, the researchers found that prenatal exposure was far more influential with respect to cognitive function than subsequent fluoride exposure during childhood. As noted by Hu, "The fetal system tends to be more sensitive to environmental

toxicants than once the child is born," and this study supports that view.

FAN Sues EPA

In November 2016, FAN along with Food & Water Watch, Organic Consumers Association, American Academy of Environmental Medicine, International Academy of Oral Medicine and Toxicology, Moms Against Fluoridation and several individual mothers, filed a petition[10] calling on the EPA to exercise its authority to prohibit the deliberate addition of fluoridation chemicals to public drinking water under Section 21 of the Toxic Substances Control Act (TSCA).

The EPA issued its response[11] February 27, 2017, stating that the petition had failed to present "a scientifically defensible basis" to conclude that anyone had in fact suffered neurotoxic harm as a result of fluoride exposure. In response, FAN and its coalition partners filed a lawsuit in the U.S. District Court for the Northern District of California, legally challenging the EPA's denial of their petition.

Importantly, it will be a "de novo" proceeding, meaning the court cannot simply defer to the EPA but must independently evaluate the scientific evidence presented. So far, FAN has won two important court battles:

1. December 21, 2017, United States District Judge Edward M. Chen denied the EPA's motion[12] to dismiss the case.
2. February 7, 2018, Chen denied the EPA's motion to limit the scope of discovery.[13] The agency was basically trying to prohibit the coalition's attorneys from obtaining internal EPA documents and prohibit coalition experts from relying on studies published after our petition was submitted in November 2016. This includes the landmark U.S. government-funded study[14,15] mentioned earlier, which

was published in September 2017.

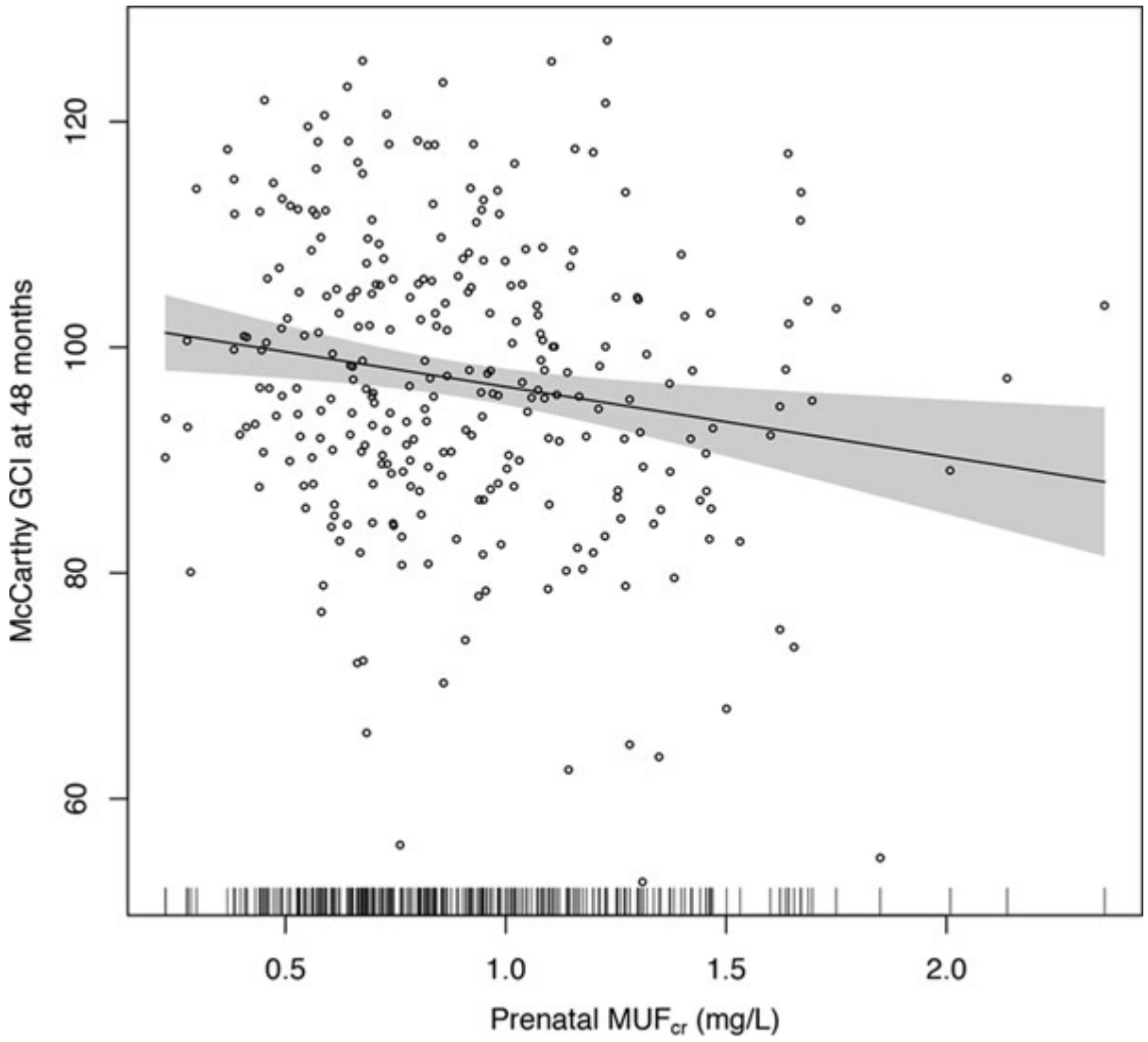
Why the 2017 NIEHS Study Is so Important for This Case

The 2017 NIEHS study is really important for this case because it demonstrates that the IQ loss that can be anticipated from fluoride exposure at current levels is quite significant. In short, a child of a mother drinking water with 1 part per million (ppm) of fluoride can be predicted to have an IQ that is five to six points[16] lower than a child born to a mother who drank fluoride-free water.

Another really important finding is the fact that there was no threshold below which fluoride did not affect IQ. In a nutshell, this means that as the level of fluoride in urine increased, IQ decreased – across the entire range of exposures, from lowest to highest. This in turn means there's no level at which there will not be some kind of detrimental effect on cognition – it's just a matter of degree. The study explains this as follows:

> *"The smooth plot of the association between GCI [editor's note: IQ test at age 4] and maternal prenatal urinary fluoride from an adjusted GAM model [editor's note: a model that corrects for extraneous factors] suggested a linear relation over the exposure distribution (Figure 2)."*

Figure 2.



Source: [Environmental Health Perspectives September 2017; 125(9)]

Another important point is that they measured fluoride in urine, which is a far more accurate indicator of total fluoride intake than simply measuring the concentration of fluoride in drinking water and then calculating how much water is being consumed. When drinking water is the dominant source of fluoride, then fluoride concentrations in urine and water are typically about the same.

Hence, a mean urine fluoride level of 0.9 mg/L implies these women were ingesting the same amount of fluoride as women drinking water with a fluoride level of 0.9 mg/L – just 0.2 mg/L above the currently recommended level for drinking water in the U.S. When you factor in the range of fluoride exposures in the study, the exposure is likely very close to the range found in many fluoridated areas of the U.S.

They also controlled for a wide range of factors – including lead, mercury, socioeconomic status, smoking, alcohol use and pregnancy-related problems – that could potentially skew the results or produce a false effect. Importantly, the researchers were able to largely rule out the influence of these confounding factors.

The Many Ways in Which Fluoride Harms Children's Brain Function

As mentioned, there are now hundreds of studies showing fluoride damages brain function, in a variety of different ways. Among the proposed mechanisms of harm, studies have shown fluoride can:[17]

Interfere with basic functions of nerve cells in the brain	Reduce nicotinic acetylcholine receptors	Reduce lipid content in the brain
Damage the pineal gland through fluoride accumulation	Impair antioxidant defense systems	Damage the hippocampus
Damage purkinje cells	Increase uptake of aluminum, which has neurotoxic effects	Encourage formation of beta-amyloid plaques (the classic brain abnormality in Alzheimer's disease)
Exacerbate lesions induced by iodine deficiency	Increase manganese absorption, which has also been linked lower IQ in children	Impair thyroid function, which can also affect brain development

Fluoride Exposure Not Limited to Fluoridated Water

In April 2015, the U.S. government admitted the "optimal" level of fluoride recommended since 1962 had been excessive, causing over 40 percent of American teens to develop dental fluorosis, a clearly visible sign of fluoride overexposure. As a result of these findings, the U.S. Department of Health and Human Services (HHS) lowered its recommended level of fluoride in drinking water from an upper limit of 1.2 mg/L to 0.7 mg/L.[18]

However, even if 0.7 mg/L lowers incidence of dental fluorosis, the 2017 NIEHS study clearly shows this level still poses significant risks — and a completely unnecessary one at that. It's important to realize that fluoride exposure is not limited to fluoridated water or even dental products. Many foods and beverages also contain high levels of fluoride.

In the featured interview, Michael Connett addresses some of the most prominent yet hidden sources, which include white grape juice and white wine, thanks to the use of cryolite, a fluoride-based pesticide. Grapes grown with cryolite can produce wine with fluoride levels that are higher than that found in fluoridated water. Ditto for grape juice. Many teas also contain fluoride, and the fluoride content is directly proportional to the age of the plant, so to minimize your fluoride exposure from tea, select white tea.

Action Item: Help Fund Legal Action to End US Water Fluoridation

According to Michael Connett, a trial and ruling in the case against the EPA is expected sometime next year. To fund this venture, FAN urgently needs your help. One of the primary expenses is the experts, who will need to spend considerable time preparing reports, preparing for their depositions and testifying in court.

The current fundraiser will run through May 31, and during

this time, donations up to $75,000 will be matched with $2 for every dollar. So, each dollar you donate now will be turned into $3. So, please, consider making a tax-deductible donation today.