



Fluoride in our Water

History of Flouride

Dentist Frederick McKay discovered fluorosis of the teeth and that fluoride helps prevent tooth decay

1901

1945

U.S. started adding fluoride to community water supplies

National Toxicology program, part of the US Dept of Health and Human Services release findings showing effects of fluoride overexposure

2024

Why discuss this today

- DeForest has wells 4 all but 1 (well 6) have capability to add fluoride
- We need to replace the pumps, containment, & scales in the 3 wells we add fluoride
- The cost to replace all the equipment is \$9,260 (approx. \$3,100/well)

Questions asked last night at Public Services Meeting

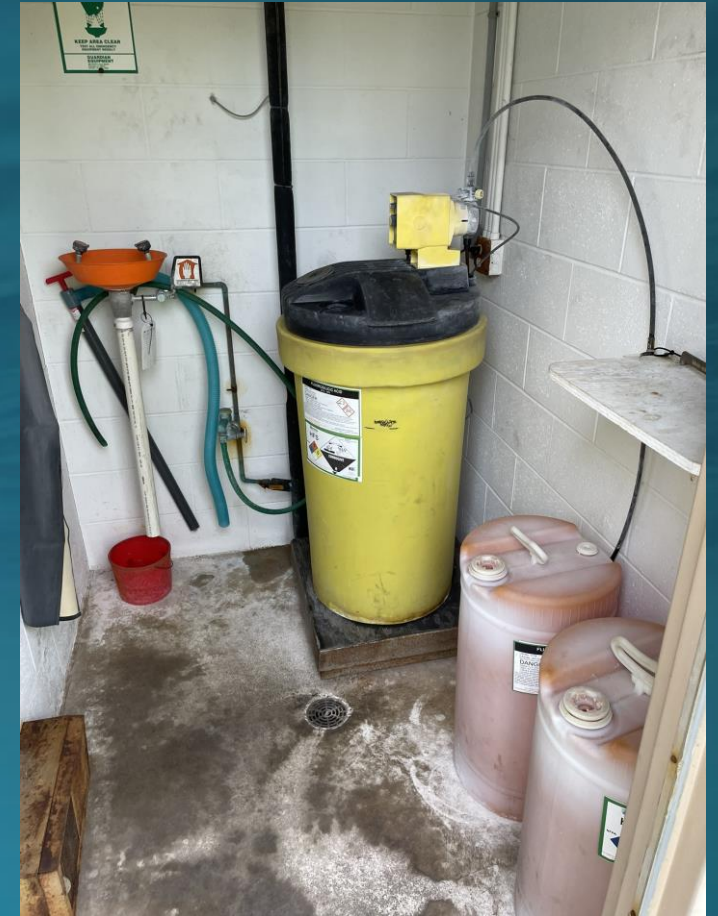
- Number of municipalities considering removing?
 - It is a very difficult number to acquire to the best of my knowledge currently there 15 in the state. In Dane County there are 2 and one has discontinued (Marshall). Near us Lodi, Monroe,
 - 188 out of 608 water systems in Wisconsin add a fluoride compound
- What does Europe do with fluoride in water?
 - Most do not add it to the water
- What is our fluoride ppm?
 - We have naturally .1ppm in our water (2023 Consumer Confidence Report)
- What is the ADA stance?
 - They have endorsed fluoridation since 1950
- What does fluoride do to pipes?
 - The spec sheet for hydrofluorosilicic acid says to avoid metals

Daily adequate intakes – National Institutes of Health

Age	Male	Female	Pregnancy	Lactation
Birth to 6 months	0.01 mg	0.01 mg		
7–12 months	0.5 mg	0.5 mg		
1–3 years	0.7 mg	0.7 mg		
4–8 years	1 mg	1 mg		
9–13 years	2 mg	2 mg		
14–18 years	3 mg	3 mg	3 mg	3 mg
19+ years	4 mg	3 mg	3 mg	3 mg

- There is about .248 mg in 1 - 12oz glass of water (.3548 liters)
 - $.7\text{mg/l fluoridated water} \times .3548 \text{ liters} = .248$
- Most toothpastes sold in the United States contain 1,000 to 1,100 mg/L of fluoride, which is about 1.3 mg in a quarter teaspoon. A pea-sized amount of toothpaste, which is about 0.75 g, contains about 0.4 mg of fluoride. (warning labels on toothpaste advise you not to swallow it)

Hydrofluorosilicic Acid corrosion in well houses



What's in Hydrofluorosilicic Acid

Product Name: **Hydrofluorosilicic Acid**
Alternate Names: **Fluorosilicic Acid, HFSA**
25% H₂SiF₆
Industrial Grade

Chemical Analysis	Typical	Guarantee
H ₂ SiF ₆	23.0-26.0 %	23.0
H ₂ SiF ₆ , as F	18.2-20.6 %	
Heavy Metals	< 0.02 %	
Phosphates, as P ₂ O ₅	0.2 %	
Lead, as Pb	1.0 ppm	
Iron, as Fe ₂ O ₃	70 ppm	
Iodide, as I	16 ppm	
Arsenic, as As	6.0 ppm	

This product is NSF Certified to ANSI Standard 60.

Maximum dosage for potable water treatment is 6 mg/L.



Fluoride is a simple ion F-

New emerging information

- Food & Water Watch successfully sued the EPA

Un Not	18	IV. <u>CONCLUSIONS OF LAW</u>	
	19	121.	Plaintiffs have proven, by a preponderance of the evidence, that water fluoridation
	20	at the level of 0.7 mg/L – the prescribed optimal level of fluoridation in the United States –	
	21	presents an “unreasonable risk of injury to health or the environment, without consideration of	
	22	costs or other non-risk factors, including an unreasonable risk to a potentially exposed or	
	23	susceptible subpopulation under the conditions of use.” 15 U.S.C. § 2620(b)(4)(B)(ii).	
	24	122.	The Court thus orders the Administrator to initiate rulemaking pursuant to
	25	Subsection 6(a) of TSCA. <i>See id.</i> §§ 2605(a), 2620(a).	
	26	123.	The Court defers ruling as to whether Plaintiffs are entitled to recovery of their

- National Toxicology Program (part of USDHHS)

Findings

The NTP monograph concluded that higher levels of fluoride exposure, such as drinking water containing more than 1.5 milligrams of fluoride per liter, are associated with lower IQ in children. The NTP review was designed to evaluate total fluoride exposure from all sources and was not designed to evaluate the health effects of fluoridated drinking water alone. It is important to note, however, that there were insufficient data to determine if the low fluoride level of 0.7 mg/L currently recommended for U.S. community water supplies has a negative effect on children's IQ.

The NTP uses 4 confidence levels - high, moderate, low, or very low - to characterize the strength of scientific evidence that associates a particular health outcome with an exposure. After evaluating studies published through October 2023, the NTP Monograph concluded there is moderate confidence in the scientific evidence that showed an association between higher levels of fluoride and lower IQ in children.

The determination about lower IQs in children was based primarily on epidemiology studies in non-U.S. countries such as Canada, China, India, Iran, Pakistan, and Mexico where some pregnant women, infants, and children received total fluoride exposure amounts higher than 1.5 mg fluoride/L of drinking water. The U.S. Public Health Service currently recommends 0.7 mg/L, and the World Health Organization has set a safe limit for fluoride in drinking water of 1.5 mg/L. The NTP found no evidence that fluoride exposure had adverse effects on adult cognition.

Reasons to end fluoridation of DeForest public water

- Save adding new pumps - \$9,260.00
- Save on purchasing hydrofluorosilicic acid yearly - \$3500 +
- Stop putting Village employees in harms way
- One well is not in compliance with DNR requirements and one well we don't even add fluoride.
- Continuing to put most vulnerable at risk for neurodevelopment and cognition loss until all the data is in
- There are ample more ways to get fluoride today than in 1945 – stop taking away residents' choice by adding it to DeForest's water.