

August 31, 2022

On August 9, 2022, the Wills Point City Council unanimously approved to dissolve the Texas Department of State Health Services Fluoridation Program. We will no longer add fluoride to our drinking water as of November 1, 2022. Below is a list of the benefits and disadvantages of doing so.

Health Benefits and Disadvantages of Fluoride in Drinking water

## **Benefits**

- Fluoride reduces the incidence of dental caries and slows or reverses the progression of existing lesions. Dental caries is an infectious and multifactorial disease afflicting most people in industrialized and developing countries.
- Fluoride has been suggested as a therapy for osteoporosis since the 1960s
- Once taken up into bone, fluoride appears to increase osteoblast activity and bone density, especially in the lumbar spine.

## **Disadvantages**

- Most developed countries, including Japan and 97% of the European population, do not consume fluoridated water.
- Fluoride intake through fluoridated water is uncontrollable, since people are receiving varying doses regardless of age, health status, and individualized therapy.
- Water might get contaminated with toxic chemicals while being fluoridated.
- Studies on animals and humans concerning fluoride intake showed neurotoxic, nephrotoxic, and other adverse effects even when small doses are administered.
- Fluoride can be received from sources other than fluoridated water, including ingested (mechanically deboned meat, pesticide residue, and tea) and non-ingested products (fluoridated toothpaste).
- The fluoride benefit is topical rather than systemic, so it is better to be directly delivered to the teeth.
- The effectiveness of fluoridation was not validated by any randomized controlled trial.

- The US Food and Drug Administration have classified fluoride as an "unapproved new drug".
- In fluoridated low-income countries, tooth decay is widely spread and is mainly caused by the absence of dental care and poor hygiene.

Most important symptoms/effects, acute and delayed

Symptoms/Injuries: Corrosive. Causes burns. Harmful if swallowed. Harmful if inhaled.

Symptoms/Injuries after inhalation: Causes severe respiratory irritation if inhaled. Symptoms may include Burning

of nose and throat, constriction of airway, difficulty breathing, shortness of breath, bronchial spasms, chest pain,

and pink frothy sputum. Contact may cause immediate severe irritation progressing quickly to chemical burns. May

cause pulmonary edema. Symptoms may be delayed.

Chronic symptoms: Repeated or prolonged inhalation may damage lungs.

Prolonged and repeated contact will

eventually cause permanent tissue damage. Repeated and prolonged exposure to fluorine containing compounds

may cause fluorosis, a condition characterized by changes in bone density and strength, accompanied by stiffness and pain in joints.

## Reference Material Links for Benefits

- https://pubmed.ncbi.nlm.nih.gov/27352462
- https://pubmed.ncbi.nlm.nih.gov/21436859
- https://pubmed.ncbi.nlm.nih.gov/9692071

## Reference Material Links for Disadvantages

- <a href="https://scholar.google.com/scholar\_lookup?journal=J+Swedish+Med+Assoc&title">https://scholar.google.com/scholar\_lookup?journal=J+Swedish+Med+Assoc&title</a>
  =Current+problems+relating+to+the+pharmacology+and+toxicology+of+fluorides&auth
  or=A+Carlsson&volume=14&publication\_year=1978&pages=1388-1392&
- <a href="https://scholar.google.com/scholar\_lookup?journal=J+Swedish+Med+Assoc&title">https://scholar.google.com/scholar\_lookup?journal=J+Swedish+Med+Assoc&title</a>
  =Current+problems+relating+to+the+pharmacology+and+toxicology+of+fluorides&auth
  or=A+Carlsson&volume=14&publication\_year=1978&pages=1388-1392&
  - https://pubmed.ncbi.nlm.nih.gov/20188782
  - https://pubmed.ncbi.nlm.nih.gov/21237562

P. O. Box 505 Office: 518 Houston St. Wills Point, TX 75169 Phone: 903-873-2578 Fax: 903-873-5512

- <a href="https://pubmed.ncbi.nlm.nih.gov/7825191">https://pubmed.ncbi.nlm.nih.gov/7825191</a>
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6195894/#b48-pnfs-23-171
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6195894/#b52-pnfs-23-171
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6195894/#b53-pnfs-23-171
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6195894/#b53-pnfs-23-171
- https://pubmed.ncbi.nlm.nih.gov/10714718
- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6195894/#b34-pnfs-23-171
- https://pubmed.ncbi.nlm.nih.gov/17916854

If you have any questions regarding this information, please contact me: Brent Holbrook, Utility Superintendent, at 903-873-2578.

Sincerely,

Brent Holbrook, Utility Superintendent