

Luke Fluoride FAQ's Fact Sheet (18 Jan 2017)

1. Is my water safe?

Yes, your water is safe. Luke AFB (LAFB) is committed to insuring safe drinking water is supplied to its people. We continue to test the water and report these results to the Arizona Department of Environmental Quality (ADEQ) who are responsible for regulatory oversight to ensure that EPA standards are met.

2. What is the source of my drinking water?

LAFB drinking water is pumped from wells in the ground similar to how local municipalities do to obtain their drinking water for the local populations in Phoenix and the various surrounding counties.

3. Why are you just announcing this now?

There was a misinterpretation of the reporting requirements for fluoride with respect to drinking water tests results. Results were provided to LAFB on 4 February 2016 and the elevated levels were missed due to only looking at the Primary MCL and not realizing that there was a Secondary MCL for fluoride. LAFB monitors drinking water quality and the error was not realized until different individuals reviewed the sampling results.

4. What is the requirement to notify the public when fluoride levels exceed thresholds?

Fluoride is a naturally occurring solute which is found in well water across the US. The EPA Secondary MCL is 2.0 mg/l drinking water. The requirement is to notify the public within 12 months of receiving sampling results that show fluoride levels have been exceeded. This public notice should be posted as long as the levels exceed the identified legal threshold and republished annually until the levels are less than the EPA's limit. We discovered the elevated levels on 13 December 2016 and immediately notified the ADEQ.

5. Why wasn't the source shut down when the levels were found to exceed thresholds?

The source is not required to be shut down since the levels are below the primary MCL. As soon as the results were found/identified as being elevated, appropriate authorities (i.e. ADEQ) were notified. The fluoride levels exceed the secondary MCL which is put in place to prevent cosmetic discoloration of the permanent teeth (dental fluorosis) in children under the age of 9. We continue to monitor the water at the Child Development Center monthly to ensure we stay below the Primary MCL.

6. How often does my water get tested and what common contaminants are included in this testing?

The frequency of testing of your water at LAFB varies from once a month to once every 6 years depending on a variety regulatory standards/guidelines. LAFB tests for microbial contamination, chlorine and pH on a monthly basis. Disinfection byproducts and volatile organic compounds are tested on an annual basis. Other contaminants found in groundwater such as arsenic and nitrate are tested on a quarterly basis. Lead, copper, inorganic compounds

and synthetic organic compounds are tested every 3 years. Radionuclides are tested for every 6 years.

7. Who does water testing at Luke AFB? How do I find out more specifics about the Luke water testing process? I am concerned Luke AFB may be missing something else that is harmful!

The LAFB Bioenvironmental Engineering Flight conducts water testing and submits these results to outside certified testing laboratories. If you have general questions regarding fluoride water testing or other contaminants in the drinking water please call 623-856-7521.

8. Where does fluoride come from and why is it in my water? Is this a result of some base activity?

Fluoride is a mineral that occurs naturally and is released from rocks into the soil, water, and air. Almost all water contains some fluoride, but usually not enough to prevent tooth decay. Fluoride can also be added to drinking water supplies as a public health measure for reducing cavities. Decisions about adding fluoride to drinking water are made at the state or local level.

9. How will I be notified if there are changes in my drinking water in the future?

We will continue to regularly monitor the drinking water and if there are any future elevations in fluoride levels or any other substance in your drinking water which puts you at risk you will be notified. In addition once elevated levels are found/notified then a repeat notice of elevation shall be issued to the public every annually until the levels normalize.

10. How do I remove fluoride from drinking water?

Removal of fluoride from water is a difficult water treatment action. Most point-of-use treatment systems for homes that are installed on single faucets use activated carbon filtration, which will not remove the fluoride ion. Other treatment systems (such as reverse osmosis, ion exchange, or distillation systems to reduce fluoride levels) vary in their effectiveness to reduce fluoride. Check with the manufacturer of the individual product.

11. What type of health issues can be related to water quality?

The presence of certain contaminants in the water can lead to health issues, including gastrointestinal illness, reproductive problems, and neurological disorders. Infants, young children, pregnant women, the elderly, and immunocompromised persons may be especially at risk of becoming ill after drinking contaminated water. Federal law requires that systems reduce certain contaminants to set levels, in order to protect human health.

12. What specific symptoms result from fluoride exposure?

*In the case of fluoride, early symptoms of acute fluoride poisoning include gastric pain, nausea, vomiting, and headaches. Studies have found that these symptoms are produced by a single ingestion of just **0.1 to 0.3 mg/kg** (i.e., 0.1 to 0.3 milligrams of fluoride for every kilogram of bodyweight). A child weighing 10 kilograms, therefore, can suffer symptoms of acute toxicity*

by ingesting just 1 to 3 milligrams of fluoride in a single sitting. 1 to 3 mgs of fluoride is found in just 1 to 3 grams of toothpaste (less than 3% of the tube) — including toothpaste that is marketed specifically to children with bubble-gum and fruit flavors.

13. Does fluoride cause cancer?

There have been many population based studies that have looked at the potential link between water fluoride levels and cancer; however there has not been a strong link to cancer identified.

14. How the diagnosis of acute (severe and sudden) fluoride toxicity is made?

The diagnosis of acute fluoride toxicity may not be immediately known due to the symptoms of gastrointestinal pain, nausea, vomiting, and headaches mimic other, common ailments (e.g. upset stomach, nausea, flu). It should be made by a qualified physician or health care provider.

15. How is acute fluoride toxicity treated?

Acute fluoride toxicity should be treated by an experienced medical provider promptly. Treatment involves minimizing absorption by administering a solution containing calcium, monitoring and managing plasma calcium and potassium concentrations, acid-base status, and supporting vital functions

16. Should any specific persons be concerned due to their exposure to fluoride?

Specific populations to include: those with severely compromised immune system, infants, pregnant women, and the elderly, may be at increased risk and should seek advice from your health care providers.

17. I've been feeling sick and this seems to explain why! Who should I contact?

If you feel sick or think your health has been compromised then you should contact your primary care manager/doctor. If you are seen at the 56 Medical Group then call your doctor's appointment line to schedule an appointment. If you have general health questions regarding fluoride please contact 56 Medical Group/Public Health at 623-856-6176.

18. Who do I file a complaint claim with?

The Arizona Department of Environmental Quality (ADEQ) accepts complaints on water quality. They can be reached at 602-771-6403 or via their website <http://www.azdeq.gov/>. You can also contact the AZ Dept. of Health 1-800-222-1222.

19. How do I file a claim with the Air Force specially?

To file a claim for personal injury you will need to submit a Standard Form 95 (SF 95) to the Luke Air Force Base Legal Office. You may reach the base legal office at 623-856-6901 for information on how to obtain the SF 95 and or to ask specific questions about the process for submitting a personal injury claim.

20. What did the base do to make the fluoride levels drop?

The 56 Medical Group and 56 Support Group staffs are developing various courses of action and have reached out to the City of Glendale for advice. Various solutions will be presented to wing leadership by early Jan 2017.

Public Health utilized the following websites to gather information for this FAQ:

<https://www.cdc.gov/fluoridation/faqs/public-service-recommendations.html>

<https://fluoridealert.org/issues/health/>

<http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/water-fluoridation-and-cancer-risk>

<https://www.ncbi.nlm.nih.gov/pubmed/21701192>

<http://fluoridealert.org/studies/acute03/>



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