Q&A: The Updated Recommendation for Fluoride in Water

Q-1: What is fluoride? Fluoride is a mineral that exists naturally in drinking water, but usually at a concentration that is too low to prevent tooth decay. This is why so many U.S. communities fortify their drinking water with a small amount of additional fluoride. This process is called “fluoridation.” According to the Centers for Disease Control and Prevention, fluoridated water reduces tooth decay by about 25% over a person’s lifetime.

Q-2: What is the updated recommendation? The U.S. Department of Health and Human Services (HHS) has finalized a recommendation for the concentration of fluoride that public water systems should use for fluoridation. The recommendation is 0.7 parts per million (PPM). The previous recommendation called for levels that ranged from 0.7 to 1.2 PPM. This range was based on the scientific understanding that Americans in warmer climates drank more water than those in cooler climates consumed.

Q-3: Why was the fluoride level updated? The change by HHS reflects two key facts:

- Americans today have access to more sources of fluoride — such as fluoride toothpaste and mouth rinse — than they had in 1962, when the previous recommendation was made.
- Research shows that the amount of water consumed by children is fairly consistent across all U.S. regions, regardless of the local climate. In the 1960s, scientists believed that water consumption habits varied in different regions, possibly because air conditioning was less common than it is today. The newer data on water consumption means a single fluoride level, instead of a range, is appropriate.

Q-4: Is it unusual for a recommendation like this to be updated? No, it is not. Federal health officials periodically review research and rely on the best science to consider whether standards like this need to be updated. Fluoride is only one example. Several years ago, health experts updated recommendations for the daily intake of Vitamin D and calcium.

Q-5: What is enamel fluorosis and how is the updated recommendation related to it? Enamel fluorosis is a change in the appearance of tooth enamel that is caused by excessive exposure to fluoride. Enamel fluorosis does not affect the health or function of the teeth. Typically, fluorosis in the U.S. is a mild, cosmetic condition that leaves faint, white streaks on the surface of teeth. The effect is so subtle that many people with fluorosis don’t even notice it. The new fluoride level is expected to reduce fluorosis.

Q-6: What does the updated recommendation say about fluoridation’s safety and benefits? Fluoridation is a safe, effective way to prevent tooth decay — and this recommendation doesn’t change that. The updated level was first proposed by HHS in 2011, and it didn’t cause any major health or medical organization to change its position. In fact, fluoridation is still endorsed by the leading medical and health organizations, including the American Academy of Pediatrics, the American Dental Association and the Institute of Medicine. In fact, the American Public Health Association reaffirmed its support for fluoridation soon after the fluoride level was updated in 2011. Adults and children can do their teeth a favor by drinking tap water with added fluoride.

For more information about fluoride, visit the websites of the Children’s Dental Health Project (cdhp.org) and the Campaign for Dental Health (iLikeMyTeeth.org).