Fact Sheet for Community Water Systems On Release of New Final Recommended Fluoride Levels for Drinking Water

The Michigan Department of Environmental Quality
and the Michigan Department of Health and Human Services
5/4/15

On January 7, 2011, the Environmental Protection Agency (EPA) and the Department of Health and Human Services (HHS) released new proposed recommendations for optimal fluoride levels in drinking water. Their recommendation reaffirms that community water fluoridation is one of the most cost effective and safe measures for controlling dental decay. Since that time, HHS has been reviewing and responding to comments by the public.

On Monday, April 27, 2015, the HHS, with support from The Center for Disease Control and Prevention (CDC), released their final recommendation for the optimal fluoride level in drinking water of 0.7 milligrams per liter (mg/L). This new final recommended level of fluoride in drinking water is set at a level to promote public health benefits of fluoride for preventing tooth decay while minimizing the chance for dental fluorosis.

Excerpt from Public Health Reports, HHS, July-August 2015 Vol 130: *U.S. Public Health Service Recommendation for Fluoride Concentration in Drinking Water for the Prevention of Dental Caries*

“Through this final recommendation, the U.S. Public Health Service (PHS) updates and replaces its 1962 Drinking Water Standards related to community water fluoridation—the controlled addition of a fluoride compound to a community water supply to achieve a concentration optimal for dental caries prevention. For these community water systems that add fluoride, PHS now recommends an optimal fluoride concentration of 0.7 milligrams/liter (mg/L). In this guidance, the optimal concentration of fluoride in drinking water is the concentration that provides the best balance of protection from dental caries while limiting the risk of dental fluorosis. The earlier PHS recommendation for fluoride concentrations was based on outdoor air temperature of geographic areas and ranged from 0.7–1.2 mg/L. This updated guidance is intended to apply to community water systems that currently fluoridate, or that will initiate fluoridation, and is based on considerations that include:

• Scientific evidence related to the effectiveness of water fluoridation in caries prevention and control across all age groups
• Fluoride in drinking water as one of several available fluoride sources
• Trends in the prevalence and severity of dental fluorosis
• Current evidence on fluid intake of children across various outdoor air temperatures.”

The recommendation was developed in response to a 2006 report from the National Academies of Science suggesting EPA update their health and exposure assessment of fluoride in drinking water and other sources. From this assessment, EPA acknowledges it is now possible that Americans receive more fluoride from other sources so that slightly lower levels in drinking water will be sufficient.

This recommendation is based on data showing increasing dental fluorosis across the United States as a result of increasing exposure to fluoride in a variety of sources such as toothpaste, mouth wash and the application of various dental products. Mild fluorosis is noticed as chalky
white lines on the enamel of teeth, barely noticeable except to a dental professional. Severe fluorosis is rare, but can cause pitting of the enamel and darker brown staining of the enamel.

The current regulations on fluoride consist of a Maximum Contaminant Level of 4.0 mg/L and a Secondary Maximum Contaminant Level of 2.0 mg/L. EPA is currently reviewing and analyzing fluoride information regarding occurrence, health effects, and other factors under the Safe Drinking Water Act’s third Six-Year Review to decide whether a revision to the fluoride standard is likely to result in health risk reductions. EPA expects to complete the Six-Year Review in 2016.

What does this mean for water systems?

The Michigan Department of Environmental Quality (DEQ) and the Michigan Department of Health and Human Services (MDHHS) agree with this final HHS recommendation. Therefore, if you are currently adjusting fluoride levels in your community drinking water, you may adjust the levels to a minimum of 0.7 mg/L. We strongly advise that you do not allow levels to fall below this optimal level as benefits to decay prevention become substantially less.

Contact Susan Deming, Education/Fluoridation Coordinator, MDHHS at demings@michigan.gov or your DEQ District Engineer for more information.

For more information about community water fluoridation, as well as information for health care providers and individuals on how to prevent tooth decay and reduce the chance of developing dental fluorosis: http://www.cdc.gov/fluoridation

The U.S. Public Health Service Recommendation for Fluoride Concentration in Drinking Water for the Prevention of Dental Caries is published in Public Health Reports: http://www.publichealthreports.org/fluorideguidelines.cfm