A STEP IN THE RIGHT DIRECTION

SUMMARY: The US Department of Health and Human Services Federal Panel on Community Water Fluoridation has made a final recommendation on community water fluoridation that replaces the relevant parts of the 1962 Drinking Water Standards. Whereas the earlier recommendation, based on the outdoor air temperature of geographic regions, involved a range of 0.7–1.2 mg F/L, the new recommendation, for community water systems that currently fluoridate or plan to do so, is for a level of 0.7 mg F/L. While this can be seen as a step in the right direction, the editorial writer considers that, based on the empirical evidence available, no fluoride should ever be added to a community water supply.

Keywords: Recommendation for fluoride in water; Water fluoridation.

In an update to the website of the Centers for Disease Control and Prevention, dated 24 April 2015, it was noted that the US Department of Health and Human Services Federal Panel on Community Water Fluoridation has made a final recommendation on community water fluoridation that replaces the relevant parts of the 1962 Drinking Water Standards. Whereas the earlier recommendation, based on the outdoor air temperature of geographic regions, involved a range of 0.7–1.2 mg F/L, the new recommendation, for community water systems that currently fluoridate or plan to do so, is for an optimal fluoride concentration in drinking water of 0.7 mg/L. The US Surgeon General, Dr VH Murthy, endorsed the recommendation and urged that communities adopt it.

The Panel considered comments that a level of 0.7 mg F/L might cause adverse effects involving severe dental fluorosis, bone fractures, skeletal fluorosis, carcinogenicity, IQ and other neurological effects, and endocrine disruption. They stated that, after they thoroughly reviewed the evidence related to these concerns, they did not identify compelling new information requiring them to alter their assessment.

In the discussion on IQ and other neurological agents, only eight references were quoted including the findings of a recent prospective study of a birth cohort in New Zealand which did not support an association between fluoride exposure and adverse effects on IQ. However, no comments were made on the limited power of the Broadbent et al. study because of the small size of the group with no exposure to fluoridated water, fluoride tablets or fluoridated toothpaste. The panel also noted that a meta-analysis of IQ studies involved drinking water concentrations of up to 11.5 mg/L without noting that adverse IQ effects were found in a low-iodine group receiving just 0.88 mg F/L in their drinking water. No critique was made of more recent research linking, in 7.1-year-old children drinking water containing 1.12–4.07 mg F/L, the presence of moderate or severe dental fluorosis with cognitive impairment, or of an analysis, of the available empirical evidence, which found that, to protect the whole population against adverse IQ effects, the level of fluoride in drinking water should not exceed 0.1 mg/L.

The Panel noted that while fewer than 1% of the population using fluoridated water in December 2010 received water with 0.7 mg/L, by the summer of 2011, just six months after the publication of the draft notice of the new level of 0.7 mg/
L, the percentage of the fluoridated-water-receiving-population receiving water with 0.7 mg/L had risen to 68%.2

Thus, while the recommendation of a drinking water fluoride level of 0.7 mg/L is better than the previous recommended range of 0.7–1.2 mg/L and a step in the right direction, it does not go far enough. Although the World Health Organization set, in 1984 and reaffirmed in 1993, a guideline of 1.5 mg F/L (1.5 ppm) as a “desirable” upper limit, it also allows countries to set Country Standards, their own national standards or local guidelines.10 The limit of 1.5 mg F/L has been seen to be unsuitable in some countries and lower Country Standards have been set of 1 mg/L in India and 0.6 mg/L in Senegal, West Africa.11 A rider to the Indian limit is that the “lesser the fluoride the better, as fluoride is injurious to health.”11

Hopefully, another 52 years will not have to pass before the 0.7 mg/L recommendation is replaced by a new recommendation that no fluoride should ever be added to a community water supply.

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REFERENCES