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USE OF OPTIMALLY FLUORIDATED WATER  
DOES NOT DELAY TOOTH ERUPTION

Opponents of fluoridation frequently attribute the reduction in the prevalence of tooth decay among children reared in optimally fluoridated communities to a supposed delay in the eruption of their teeth. There is no scientific basis for this allegation.

A 1956 report by Reuben Feltman<sup>1</sup> on an experimental dietary fluoride supplementation program using tablets has been cited as indicating that optimal fluoridation of water may cause delayed eruption of teeth. Feltman reported observing many cases of delayed eruption of the deciduous teeth among participating children. During the period covered by his report, the children were provided from birth with about one milligram of supplemental fluoride each day. This dosage was about twice the supplemental fluoride dosage that was finally found to be desirable for children under 3 years old.<sup>2, 3</sup> Therefore, the results of this study cannot be taken as an indication of the effects of optimal fluoridation of water supplies or the recommended supplementation of dietary fluoride.

Opponents also allege that the claimed delayed eruption of teeth is indirectly caused by fluoride in the water acting to inhibit thyroid function. Although the opponents have at various times cited Floyd DeEds, Louis J. Baume, Hermann Becks, and Balint Orban<sup>2, 4-7</sup> as sources of information supporting this claim, none of the published work of these researchers refers to fluoride as affecting thyroid function. N. C. Leone and others have done specific thyroid studies of persons using water with an optimal or higher fluoride concentration and have reported no effect on thyroid development or function.<sup>8, 9</sup>

Certain articles published by Floyd DeEds, Charles F. Deatherage, Robert Weaver, H. K. Cowan, Margaret C. Smith, Howard V. Smith,

and Edith M. Lantz<sup>10-13</sup> have also occasionally been cited as evidence for the alleged delayed eruption. None of these articles connect delayed eruption of teeth with the use of either optimally fluoridated water supplies or the recommended amounts of dietary fluoride supplementation.

Analysis of dental surveys in naturally fluoridated areas shows that no significant delay in tooth eruption has been observed even in communities where the fluoride concentration in the water supplies is nearly twice the recommended concentration.<sup>14</sup> Tooth eruption ages for children in communities with optimally adjusted fluoridation have been compared with tooth eruption ages for children in nonfluoridated areas. These comparisons consistently show that there are no differences.<sup>15</sup> Studies in foreign countries have shown the same results.<sup>16-18</sup>

The available evidence clearly shows that the use of optimally fluoridated water supplies by children can prevent up to 65% of tooth decay and does not delay the eruption of the deciduous teeth nor the permanent teeth.

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