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AMERICAN MEDICAL ASSOCIATION DESCRIBES USE OF FLUORIDES FOR DENTAL HEALTH IN 1973 AMA DRUG EVALUATIONS

The American Medical Association has supported community water fluoridation as a public health measure for more than 20 years. The Association reinforced that support in November 1972 with a further statement of their endorsement of fluoridation.

Opponents of fluoridation have misrepresented the position of the AMA by quoting out-of-context portions of the information on fluorides that appeared in the 1971 edition of the AMA Drug Evaluations. The 1973 edition of Evaluations presents information on the use of fluorides for dental health that is more detailed and is therefore less subject to misinterpretation. An excerpt that includes the full 1973 text concerning fluorides, except for commercial product information, is attached for your reference.

Division of Dentistry
Preventive Practices Branch
9000 Rockville Pike
Bethesda, Maryland 20014
Sodium Fluoride

The fluoridation of drinking water is the most widely used method for the mass prevention of dental caries in children. For children living in locations where the community water supply is not adequately fluoridated, however, benefits can be obtained by supplementing the diet with sodium fluoride. Such use must be continued over long periods of time, i.e., from infancy until 12 to 14 years of age.

Occasionally, when a need for vitamin supplementation exists and a child's source of drinking water contains less than the optimal amount of fluoride, multivitamin preparations containing 0.5 or 1 mg of fluoride in each daily dose may be an appropriate means for supplying prophylactic fluoride. (See following listing for available preparations.) However, parents should be warned that use of the preparation should be discontinued or reviewed if the family moves or there is some other change in the water supply.

Prevention of caries in children can also be achieved by the topical application of solutions of sodium fluoride or stannous fluoride to the teeth. Certain dentifrices which contain stannous fluoride or sodium monofluorophosphate are also effective.

The use of sodium fluoride, stannous fluoride, and sodium monofluorophosphate to prevent dental caries does not produce toxic reactions. However, accidental poisoning from fluoride-containing compounds (e.g., insecticides) does occur, although it is rare. The lethal dose of soluble fluoride compounds for adults is estimated to be between 2 and 5 g. The symptoms of poisoning are nausea, vomiting, hypersalivation, abdominal pain, diarrhea, myalgia, hyperreflexia, tonic and clonic convulsions, paresthesias, and hypotension. Death may result from cardiac failure or respiratory arrest. Treatment should be instituted quickly and should consist of the administration of a soluble calcium salt (e.g., calcium chloride solution 5%) by lavage, intravenous administration of fluids and, if signs of tetany appear, calcium gluconate injection.
Chronic toxicity (fluorosis) usually results from the accidental ingestion of fluoride-containing insecticides or continual inhalation of fluoride-containing industrial dusts (e.g., in aluminum mining and the phosphate fertilizer industry) or continual use of drinking water containing excessive levels (more than 2 ppm). The toxic effects are manifest in the skeleton (osteomalacia and osteosclerosis) and in the teeth (mottled enamel (dental fluorosis)) if the teeth are developing at the time toxicity occurs. Once the teeth are formed, fluorides have no effect on them. Except for orthopedic and supportive measures, there is no treatment for fluorosis and all efforts should be directed at its prevention.

USUAL DOSAGE - Oral: Children 3 to 14 years of age, sufficient sodium fluoride to provide a daily level of 1 mg of fluoride ion (2.2 mg if there is no fluoride in drinking water; this amount should be adjusted downward in proportion to the amount provided in the drinking water); 2 to 3 years, half the above amount; under 2 years, no specific daily dose has been established.