

Policy on Use of Fluoride

Originating Committee
Liaison with Other Groups Committee

Review Council
Council on Clinical Affairs

Adopted
1967

Reaffirmed
1977

Revised
1978, 1995, 2000, 2001, 2003

Purpose

The American Academy of Pediatric Dentistry (AAPD), affirming that fluoride is a safe and effective adjunct in reducing the risk of caries and reversing enamel demineralization, encourages public health officials, health care providers, and parents/caregivers to optimize fluoride exposure.

Methods

The current literature on systemic and topical fluoride, as well as information from the American Dental Association (ADA) 2002 House of Delegates, was reviewed.

Background

The adjustment of the fluoride level in community water supplies to optimal concentration is the most beneficial and inexpensive method of reducing the occurrence of caries.¹ Alternate means of fluoride administration are less beneficial, but are effective and economical. Epidemiologic data within the last half-century indicate reductions in caries of 55% to 60%, without significant dental fluorosis, when domestic water supplies are fluoridated at an optimal level. The costs of health care are of critical concern to the profession of dentistry, and evidence accumulated from long-term use of fluorides has demonstrated that the cost of oral health care for children can be reduced by as much as 50%.² These savings in health dollars accrue to private individuals, group purchasers, and government care programs. An even higher caries reduction can be obtained if the proper use of fluorides is combined with other dietary, oral hygiene, and preventive measures,³⁻⁵ as prescribed by a dentist familiar with the child's oral health and family history.

A large body of literature supports the incorporation of optimal fluoride levels in drinking water supplies. When fluoridation of drinking water is impossible, effective systemic fluoridation can be achieved through the intake of daily fluoride supplements. Before supplements are prescribed, it is essential to review all dietary sources of fluoride (eg, all drinking water sources, consumed beverages, prepared food, toothpaste) to determine the patient's true exposure to fluoride.^{1,6-8} Significant cariostatic benefits can

be achieved by the use of fluoride-containing preparations such as toothpastes, gels, and rinses, especially in areas without water fluoridation.⁹ Topical fluoride-containing products must be used with caution in young children to prevent ingestion of excessive amounts of fluoride.¹⁰

A number of clinical trials have confirmed the anticaries effect of a 5% neutral sodium fluoride varnish.^{11,12} Fluoride varnishes can prevent or reverse enamel demineralization. In children with moderate to high caries risk, fluoride varnishes^{11,12} and fluoride-releasing restorative and bonding materials¹³ have been shown to be beneficial and are best utilized as part of a comprehensive preventive program in the "dental home".^{14,15}

Policy statement

1. The AAPD endorses and encourages the adjustment of fluoride content of domestic community water supplies where feasible.
2. Whenever water fluoridation is not feasible, the AAPD endorses the supplementation of a child's diet with fluoride according to the dose schedule approved by the American Dental Association Council on Scientific Affairs (see page 90 Dietary Fluoride Supplementation Schedule under Clinical Guideline on Fluoride Therapy).
3. Efforts will be made by the AAPD and its members to inform medical peers of the potential hazard of enamel fluorosis when fluoride supplements are given in excess of the recommended amounts.
4. The AAPD will exert efforts to foster continued research on dental fluorosis.
5. The AAPD does not support the use of prenatal fluoride supplements.
6. The AAPD recommends an individualized patient caries-risk assessment to determine the use of fluoride-containing products as specified in the Policy on Use of a Caries-risk Assessment Tool (CAT) for Infants, Children and Adolescents¹⁶ and Clinical Guideline on Fluoride Therapy.⁸
7. The AAPD encourages the continued research on safe and effective fluoride products, including restorative materials.

8. The AAPD supports the delegation of fluoride application to auxiliary dental personnel, or other trained allied health professionals, by prescription or order of a qualified dentist, after a comprehensive oral examination has been performed.
9. The AAPD endorses ADA 2002 House of Delegates Resolution 67H to encourage labeling of bottled water with the fluoride concentration and company contact information.¹⁷ The resolution also supports including information with each home water treatment system on the system's effects on fluoride levels.

References

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