Policy on the 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) ~~affirms that fluoride provides a safe and effective means of reducing dental caries~~ , 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.

Methodology

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

Background/literature review

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 ~~dental~~ 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 ~~dental~~ 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. ~~, but it should be remembered that an~~ 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 ~~drinking water~~ 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 (e.g., all drinking water sources, consumed beverages, prepared food, toothpaste) to determine the patient's true exposure to fluoride.[1,6,7,8] ~~Also, fluoride content of consumed beverages and food (eg, processed food and filtered or bottled water) should be considered~~. 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 anti-caries effect of a 5% neutral sodium fluoride varnish.[11, 12] Fluoride varnishes can prevent or reverse ~~should be considered for use as a preventive adjunct to reduce~~ enamel demineralization. ~~in children identified at risk for early childhood caries. The topical application of fluoride varnish should be included in a comprehensive approach to early intervention, including a thorough intraoral examination by a qualified dentist, diagnosis of existing conditions, treatment of caries beyond the benefit of fluoride varnish and appropriate referral when indicated.~~ In children with moderate to high caries risk, fluoride varnishes[11,12] and fluoride-releasing restorative and bonding materials[13] 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 Council on Scientific Affairs of the American Dental Association (see page XX Dietary Fluoride Supplementation Schedule under Guideline on Fluoride Therapy~~16~~ 8).

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 ~~with appropriate agencies the need for~~ continued research on ~~effects of~~ dental fluorosis ~~in the dental health of children~~.

5. The AAPD does not support the use of prenatal fluoride supplements.

6. The AAPD ~~supports and encourages the appropriate use of topical fluoride-containing preparations~~ recommends an individualized patient caries-risk

assessment to determine the use of fluoride-containing products as specified in Policy on Use of a Caries-risk Assessment Tool (CAT)[16] and Guideline on Fluoride Therapy[8].

7. The AAPD ~~endorses the appropriate use of topical fluoride varnish~~ encourages the continued research on safe and effective fluoride products including restorative materials.

8. The AAPD ~~also~~ supports the delegation of fluoride ~~varnish~~ 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 American Dental Association 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.

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