Policy on the Role of Dental Prophylaxis in Pediatric Dentistry

Originating Committee
Clinical Affairs Committee
Review Council
Council on Clinical Affairs

Adopted
1986
Reaffirmed
1996
Revised

Purpose
The American Academy of Pediatric Dentistry (AAPD) presents this policy to provide assistance to practitioners in determining the indications and methods for dental prophylaxis including removal of tooth deposits, as well as facilitating patient education and clinical examination.

Methods
This policy is an update of the previous document adopted in 1986 and last revised in 2007. The revision included a new systematic literature search of electronic databases (PubMed® and Google Scholar) using the terms dental prophylaxis, toothbrushing, professional tooth cleaning, fluoride uptake, and professional dental prophylaxis, limited to children, the last 10 years, and English language and was followed by hand searches. Papers for review were chosen from a list of 22 relevant articles. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians was also considered.

Background
The term “dental prophylaxis” encompasses several techniques that are several approaches used by dentists and dental hygienists to professionally remove plaque, stain, and calculus from patients’ teeth. The toothbrush prophylaxis is a procedure wherein primarily a toothbrush and toothpaste (i.e., toothbrush coronal polish) rather than prophylaxis is a procedure that...
is are used to remove plaque from tooth surfaces and demonstrate brushing techniques to caregivers.

The rubber cup prophylaxis coronal polish is a procedure in which primarily a dental polishing paste is applied to tooth surfaces with a rotary rubber cup or rotary bristle brushes to remove plaque and stains from teeth. Dental scaling is a procedure in which ultrasonic or hand or ultrasonic instruments are used to remove dental calculus and stain. Full mouth debridement may be necessary as a preliminary treatment for those who are not able to perform daily toothbrushing whose medical, psychological, physical, or periodontal condition result in calculus accumulation beyond the scope of routine prophylaxis. By cleaning the tooth surfaces through these various approaches, the dental prophylaxis also facilitates the clinical examination and introduces dental procedures to the patient child. Additionally, the accompanying preventive visit demonstrates proper oral hygiene methods to the patient and/or caregiver. Flossing is an important part of the prophylaxis that removes interproximal and subgingival plaque while being used to aid in educating the patient and facilitating the oral examination. The benefits of various prophylaxis options are shown in the table below.

An historical reason for routine rubber cup prophylaxis at preventive visits was the belief that it was necessary before topical fluoride application (Knutson 1948). Over the years, there have been numerous reports showing plaque and pellicle are not a barrier to fluoride uptake in enamel and, consequently, there is no evidence of a difference in caries rates or fluoride uptake in subjects who receive rubber cup prophylaxis coronal polish or a toothbrush prophylaxis coronal polish before fluoride treatment (Ripa 1984).

The potential for abrasives causing tooth wear and loss of the fluoride-rich zone of enamel gained attention in the late 1960s and 1970s (Stookey 1978; Biller 1980) and has been cited as a consideration for decreasing the need for pumice prophylaxis. As a result of these findings, the selective polishing procedure (Darby 2010) and the toothbrush prophylaxis procedure have gained popularity. Selective polishing procedures involve individual evaluation of each patient so that only specific teeth that have indications (eg, stain) receive a rubber cup pumice prophylaxis. The toothbrush prophylaxis has gained acceptance in the professional and the dental insurance industry as a way to remove plaque, provide oral hygiene education, and facilitate the clinical examination. The clinician should select the least aggressive technique that fulfills the goals of the procedure and minimizes the loss of enamel.

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A patient’s risk for caries/periodontal disease, as determined by the patient’s dental provider, should help determine the interval of the prophylaxis or periodontal maintenance. An individualized preventive plan increases the probability of good oral health by demonstrating proper oral hygiene methods and techniques. In addition, and removing plaque, stain, calculus, and the factors that influence their buildup increases the probability of good oral health. Patients who exhibit higher risk for developing caries and/or periodontal disease should have recall visits at more frequent intervals more frequent than every six months.

Policy Statement

Professional prophylaxis is indicated to:

- Instruct the caregiver and child or adolescent in proper oral hygiene techniques.
- Remove dental microbial plaque, extrinsic stain, and calculus deposits from the teeth.
- Facilitate the examination of hard and soft tissues.
- Introduce dental procedures to the young child and apprehensive patient.
- Assess patient cooperation.

A patient’s risk for caries/periodontal disease helps determine the interval for recall. Those who exhibit higher risks should have recall visits more frequently than every six months.

References

This draft does not constitute an official AAPD health oral policy or clinical guideline until approval by the General Assembly. Circulation is limited to AAPD members.


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<th>Table. BENEFITS OF PROPHYLAXIS OPTIONS</th>
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<tr>
<th></th>
<th>Plaque removal</th>
<th>Stain removal</th>
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