



# IAPD/Consensus Recommendations, 2020

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- *Preporuke Međunarodnog udruženja dječjih stomatologa (International Association of Paediatric Dentistry) namijenjene su za razumijevanje i standardiziranje dječje stomatologije u cijelom svijetu.*



# Use of Fluoride for Caries Prevention: Foundational Articles and Consensus Recommendations, 2020

**Al Halabi M.** Current Guidelines for the use of fluoride in pediatric dentistry: A review. *App Clin Res, Clin Trials and Reg Affairs* 2014; 1(3):1-10.

**American Academy of Pediatric Dentistry.** Best practices: Fluoride Therapy. 2018. Available at: [https://www.aapd.org/globalassets/media/policies\\_guidelines/bp\\_fluoridetherapy.pdf](https://www.aapd.org/globalassets/media/policies_guidelines/bp_fluoridetherapy.pdf). Accessed, Dec.15, 2019.

**American Dental Association Council on Scientific Affairs.** Fluoride toothpaste use for young children. *J Am Dent Assoc* 2014;145(2):190-1.

**European Academy of Paediatric Dentistry.** Guidelines on the use of fluoride in children: an EAPD policy document. *Europe Arch Paediatr Dent* 2009;10(3):129-135.

**Lo ECM, Tenuta LMA, Fox CH.** Use of professionally administered topical fluorides in Asia. *Adv Dent Res.* 2012; 24(1):11-15

# IAPD Consensus Recommendations

- 1.** Optimal fluoride levels in water supplies for the prevention and reducing dental caries prevalence is both safe and effective.
- 2.** Dietary fluoride supplements are effective in reducing dental caries and should be considered for children at caries risk who drink fluoride-deficient water.
- 3.** Professionally applied topical fluoride treatments as 5 percent F varnish and 1.23 percent F gel preparations are efficacious in reducing caries in children at caries risk.
- 4.** Brushing child's teeth twice daily with fluoridated toothpaste, containing at least 1,000 ppm fluoride is effective in reducing dental caries in children. Using age appropriate amount of tooth paste on the brush ("smear" for children under age 3; "pea-size" for children 3-6).
- 5.** Prescription strength 0.5 percent fluoride gels and pastes are effective in reducing dental caries in high caries risk children over the age of 6.
- 6.** Use of 38% silver diamine fluoride (5% F) is effective for the arrest of non-cavitated as well as cavitated caries lesions.

How to cite: IAPD Foundational Articles and Consensus Recommendations: Use of Fluoride for Caries Prevention, 2020. [http://www.iapdworld.org/03\\_use-of-fluoride-for-caries-prevention](http://www.iapdworld.org/03_use-of-fluoride-for-caries-prevention).

# Caries Risk Assessment and Care Pathways: Foundational Articles and Consensus Recommendations, 2020

**American Academy of Pediatric Dentistry.** Caries risk assessment and management for infants, children, and adolescents, 2019. Available at: [https://www.aapd.org/media/Policies\\_Guidelines/BP\\_CariesRiskAssessment.pdf](https://www.aapd.org/media/Policies_Guidelines/BP_CariesRiskAssessment.pdf)  
Accessed, Dec. 15, 2019

**Christian B, Armstrong R, Calache H, et al.** A systematic review to assess the methodological quality of studies on measurement properties for caries risk assessment tools for young children. *Int J Paediatr Dent* 2019; 29: 106-116.

**Featherstone JDB, Chaffee BW.** The evidence for caries management by risk assessment (CAMBRA). *Adv Dent Res* 2018; 29: 9-14.

**Fontana M.** The clinical, environmental, and behavioral factors that foster early childhood caries: Evidence for caries risk assessment. *Pediatric Dent* 2015; 37(3): 217-225.

# IAPD Consensus Recommendations

The goal of caries risk assessment is to deliver preventive and restorative care optimized to a specific individual patient. Presently, however, few studies so far have determined how the application of caries risk assessment affects individual dental health outcomes. Dental caries care pathways are based on an understanding of risk indicators as applied to a specific child. Children at high caries risk require intense prevention to prevent caries initiation and arrest caries progression. Care pathways also

assumes that there will be little benefit of advanced preventive therapies for those children who are at low risk for dental caries (see Table for care pathways).

- 1.** The best caries risk indicators are previous caries experience and the longitudinal evaluation of lesion progression (increased dimension/ cavitation of white spot lesions or presence of new lesions) at recall visits. Other useful caries risk indicators useful in children are: whether the mother/caregiver has active caries,

the socioeconomic status of the family, and whether the child consumes fermentable carbohydrate at high frequency (see Table for caries risk indicators).

**2.** Besides determining caries risk at initiation of therapy, ongoing reassessment of a child's caries risk at recall visits allows for refinement of decisions. If at a recall visit existing lesions or white spot lesions have not progressed, caries risk may be considered to have decreased. Conversely, new lesions may indicate risk status may have increased.

**3.** Decisions to surgically address carious lesions should include visual detection of a cavitation in the enamel, visual identification of shadowing

under the enamel, and/or radiographic recognition of enlargement of lesions over time.

**4.** The term of “active surveillance” considers the careful monitoring of caries progression and the preventive program, instead of definitive decisions regarding the treatment of a lesion at the first sign of disease. A positive outcome of active surveillance is that a carious lesion shows no evidence of progression at a periodic recall.

**5.** Along with other information, the likelihood of a patient returning for periodic recalls and compliance with preventive therapy, is important for considering active surveillance strategies for an individual patient.

# Table: Dental Caries Care Pathways Based on a Child's Caries Risk Assessment

	Low Risk	Moderate Risk	High Risk
Caries Risk Indicators	<ul style="list-style-type: none"> <li>• Child has no caries</li> <li>• No new lesions in 1 year</li> <li>• No white spot lesions</li> <li>• High SES</li> </ul>	<ul style="list-style-type: none"> <li>• Child has/had 1 or more lesions</li> <li>• 1 or more lesions/year</li> <li>• Infrequent white spot lesions</li> <li>• Middle SES</li> </ul>	<ul style="list-style-type: none"> <li>• Child has/had 1 or more proximal lesions</li> <li>• More than 2 new lesions/year</li> <li>• Enamel defects, or white spot lesions</li> <li>• Mother/caregiver has active caries</li> <li>• Low SES</li> <li>• Appliances in mouth</li> <li>• High frequency sugar consumption</li> </ul>
Diagnostic Procedures	<ul style="list-style-type: none"> <li>• Exam interval 12 months</li> <li>• Radiograph interval 12-24 months</li> </ul>	<ul style="list-style-type: none"> <li>• Exam interval 12 months</li> <li>• Radiograph interval 12-24 months</li> </ul>	<ul style="list-style-type: none"> <li>• Exam interval 3 months</li> <li>• Radiograph interval 6 months</li> <li>• Diet analysis</li> </ul>
Preventive Therapy	<ul style="list-style-type: none"> <li>• Brushing with F toothpaste twice daily</li> <li>• Sealants</li> </ul>	<ul style="list-style-type: none"> <li>• Brushing with F toothpaste twice daily</li> <li>• Professional topical fluorides tx every 6 months</li> <li>• Sealants</li> </ul>	<ul style="list-style-type: none"> <li>• Brushing with F toothpaste twice daily</li> <li>• Systemic fluoride supplements**</li> <li>• Professional topical fluoride tx every 3 months</li> <li>• Sealants</li> <li>• Brushing with high potency F gel (over age 6)</li> </ul>



Restorative  
Therapy

- None

- Active surveillance of white spot and enamel proximal lesions enamel proximal lesions
- Restoration or SDF\*\*\* tx. of progressing lesions
- Restoration or SDF tx. of cavitated lesions

- Active surveillance white spot lesions
- Restoration of enamel proximal lesions
- Restoration or SDF tx. of progressing lesions
- Restoration or SDF tx. of cavitated lesions

\*SES = socioeconomic setting

\*\*Age and water supply considerations

\*\*\* SDF = silver diamine fluoride topical treatment

How to cite: IAPD Foundational Articles and Consensus Recommendations: Caries Risk Assessment and Care Pathways, 2020. [http://www.iapdworld.org/01\\_caries-risk-assessment-and-care-pathways](http://www.iapdworld.org/01_caries-risk-assessment-and-care-pathways).

# Management of the Developing Dentition: Foundational Articles and Consensus Recommendations, 2020

**American Academy of Pediatric Dentistry.** Management of the Developing Dentition and Occlusion in Pediatric Dentistry. *Pediatr Dent*. 2017 Sep 15; 39(6): 334-347. Available at: [https://www.aapd.org/media/Policies\\_Guidelines/BP\\_DevelopDentition.pdf](https://www.aapd.org/media/Policies_Guidelines/BP_DevelopDentition.pdf). Accessed, Jan. 28, 2019.

**Ahmad AJ, Parekh S, Ashley PF.** Methods of space maintenance for premature loss of a primary molar: a review. *Eur Arch Paediatr Dent*. 2018 Oct;19(5): 311-320.

**1.** Management of the developing dentition includes recognition, identification of risk factors, proper diagnosis, and timely treatment of developing malocclusions. The aim is to gain short-term and long-term benefits and contribute to proper dentofacial development and stable, acceptable (functional, esthetic) occlusion in the permanent dentition.

**2.** Malocclusion may negatively affect oral health quality of life (OHRQoL) of children. Underprivileged children may be susceptible to environmental and behavioral etiologic factors related to malocclusion.

**3.** Evaluation of the developing dentition includes identification of: unerupted teeth, anomalies of tooth number, size and shape, anterior and posterior crossbites, tooth positions (ectopic), presence of habits along with their dental and skeletal sequelae, abnormal dental relation, developing skeletal discrepancies, periodontal health, and airway

problems. Clinical exploration (including palpation), functional analysis and radiographic screening may be necessary for comprehensive diagnosis. Treatment objectives may vary at each dentition stage.

**4.** Optimal breast-feeding has been reported to reduce risk for nonnutritive sucking habits. Management of an oral habit must be appropriate for the child's development, malocclusion, comprehension, and ability to cooperate.

**5.** Premature loss of primary teeth may lead to malocclusion. Space maintainers may be used preventively, based on individualized planning for each case.

**6.** Increased overjet is associated with increased risk for trauma of the incisors. Interceptive treatment includes retrusion of maxillary incisors and has been reported to decrease risk for trauma, and improve facial esthetics.

# Management of Early Childhood Caries: Foundational Articles and Consensus Recommendations, 2020

**American Academy of Pediatric Dentistry.** Caries risk assessment and management for infants, children, and adolescents. Reference Manual, 2019. Available at: [http://www.aapd.org/media/Policies\\_Guidelines/BP\\_CariesRiskAssessment.pdf](http://www.aapd.org/media/Policies_Guidelines/BP_CariesRiskAssessment.pdf). Accessed, Dec 1. 2019

**American Academy of Pediatric Dentistry.** Use of silver diamine fluoride for dental caries management in children and adolescents including those with special health care needs. 2017. Available at: [http://www.aapd.org/media/Policies\\_Guidelines/G\\_SDF.pdf](http://www.aapd.org/media/Policies_Guidelines/G_SDF.pdf). Accessed, Dec 1. 2019

**American Academy of Pediatric Dentistry.** Fluoride Therapy. Reference Manual, 2018. Available at: [http://www.aapd.org/media/Policies\\_Guidelines/BP\\_FluorideTherapy.pdf](http://www.aapd.org/media/Policies_Guidelines/BP_FluorideTherapy.pdf)

# IAPD Consensus Recommendations

Early Childhood Caries remains a highly prevalent world-wide disease that has high costs to society and has a major impact of parents' and children's quality of life. Approaches to reduce its prevalence include:

1. Management of the disease process should start in the first year of a child's life; and depending on the needs of the child includes primary, secondary and tertiary prevention.

**2.** Primary prevention for ECC includes: Prenatal oral health care, limiting sugar intake and frequency for children under two years; avoiding night-time bottle feeding with milk or drinks containing free sugars; bottle and breastfeeding after 12 months, especially if frequent and/or nocturnal optimize exposure to dietary fluoride delivered by fluoridated water, fluoridated salt, or fluoridated milk; brushing child's teeth twice daily with fluoridated toothpaste, containing at least 1,000 ppm fluoride and using an age appropriate amount of tooth paste on the brush; having a dental visit for comprehensive care in the first year of life; regular 5% fluoride varnish

applications for any child at caries risk.

**3.** Secondary prevention for ECC aims to arrest the progression of caries, prior to the cavitation of lesions. In addition to primary prevention, secondary prevention includes more frequent fluoride varnish applications, such as four times per year, and applying pit and fissure sealants to susceptible molars.

**4.** Tertiary prevention for ECC can involve both non-invasive and invasive preventive management when there are cavitated lesions. Besides primary and secondary prevention approaches, silver diamine fluoride can be used to arrest cavitated lesions. Conservative caries removal and tooth restoration may be necessary to prevent further tooth breakdown, pain and prevent unnecessary pulp exposures.

**5.** Interprofessional care to assure that all infants and toddlers have access to oral health care.

**6.** Collaborate with other dental, medical and government organizations to increase awareness of adverse effects of inappropriate sugar intake.

How to cite: IAPD Foundational Articles and Consensus Recommendations: Management of Early Childhood Caries, 2020. [http://www.iapdworld.org/02\\_-management-of-early-childhood-caries](http://www.iapdworld.org/02_-management-of-early-childhood-caries).

- <https://iapdworld.org/publications/iapd-consensus-recommendations/>

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