

Management of Early Childhood Caries: Foundational Articles and Recommendations

American Academy of Pediatric Dentistry. Caries risk assessment and management for infants, children, and adolescents. Reference Manual, 2021. http://www.aapd.org/media/Policies_Guidelines/BP_CariesRiskAssessment.pdf.

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. http://www.aapd.org/media/Policies_Guidelines/G_SDF.pdf

American Academy of Pediatric Dentistry. Fluoride Therapy. Reference Manual, 2018. http://www.aapd.org/media/Policies_Guidelines/BP_FluorideTherapy.pdf

Chaffee BW, Feldens CA, Rodrigues PH, Vítolo MR. Feeding practices in infancy associated with caries incidence in early childhood. *Community Dent Oral Epidemiol.* 2015;43:338-48.

Giacaman RA, Munoz-Sandoval C, Neuhaus KW, Fontana M, et al. Evidence-based strategies for the minimally invasive treatment of carious lesions: Review of the literature. *Adv Clin Exp Med.* 2018; 27(7): 1009-1016.

Moynihan PJ, Kelly SA. Effect on caries of restricting sugars intake: Systematic review to inform WHO guidelines. *J Dent Res.* 2014;93(1):8-18.

Peres KG, Chaffee BW, Feldens CA. Breastfeeding and oral health: Evidence and methodological challenges. *J Dent Res* 2018;97(3):251-258.

Ramos-Gomez F, Crystal YO, Ng MW, Tinanoff N, Featherston JD. Caries risk assessment, prevention and management in pediatric dental care. *Gen Dent.* 2010;6:505-517.

Slayton RL, Urquhart O, Araujo MWB, et al. Evidence-based clinical practice guideline on nonrestorative treatments for carious lesions. *JADA* 2018;149(10):837-849

Wright JT, Hanson N, Ristic H, et al. Fluoride toothpaste efficacy and safety in children younger than 6 years. *J Am Dent Assoc* 2014;145(2):182-9.

Background

Early Childhood Caries remains a highly prevalent world-wide disease that has high costs to society and has a major impact on parents' and children's quality of life. Approaches to reduce its prevalence includes management of the disease by primary prevention (fluoride, dietary control, education and

legislation) secondary prevention (e.g., arresting the progression of caries prior to the cavitation stage of lesions) and tertiary prevention (both non-invasive and invasive preventive management when there are cavitated lesions).

IAPD Recommendations

1. Primary prevention for ECC includes:

a. Limiting sugar intake in foods and drink for children under two years.

Consensus-based statement › Global agreement 100%

b. Avoiding night-time bottle feeding with milk or drinks containing free sugars; and baby bottle and breastfeeding beyond 12 months, especially if frequent and/or nocturnal.

Consensus-based statement › Global agreement 84%

c. Optimal exposure to dietary fluoride that can be delivered by fluoridated water, but with less evidence for fluoridated salt, and fluoridated milk.

Consensus-based statement › Global agreement 78%

d. Brushing child's teeth with the age-appropriate amount of fluoridated toothpaste, ideally should contain 1,000–1,500 ppm fluoride.

Consensus-based statement › Global agreement 90%

e. Establishing a dental home and having a dental visit for comprehensive care in the first year of life.

Consensus-based statement › Global agreement 100%

f. Regular 5% fluoride varnish applications for any child at increased caries risk.

Evidence-based recommendation › Global agreement N/A

g. Applying pit and fissure sealants to susceptible molars.

Evidence-based recommendation › Global agreement N/A

2. Secondary prevention for ECC includes:

a. More frequent fluoride varnish applications, such as four times per year for children with white spot lesions.

Consensus-based statement › Global agreement 84%

b. Applying pit and fissure sealants to non-cavitated carious lesions molars.

Evidence-based recommendation › Global agreement N/A

3. Tertiary prevention for ECC includes:

a. Silver diamine fluoride used to arrest cavitated lesions.

Evidence-based recommendation › Global agreement N/A

b. Conservative caries removal and tooth restoration to prevent further tooth breakdown, pain and prevent unnecessary pulp exposures.

Consensus-based recommendation › Global agreement 84%