

Early Childhood Caries: A Global Epidemic

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Dental caries in children is a common, chronic infectious transmissible disease resulting from tooth-adherent specific bacteria; primarily *Mutans Streptococci* that metabolize sugars to produce acids; which over time demineralizes tooth structure. [1] It is a significant public health problem and the single most common chronic childhood disease. The prevalence is high, and in majority of cases, it remains untreated in children under the age of 3.

It was earlier called as nursing bottle caries, baby bottle tooth decay or nursing caries as it was believed that improper feeding habits lead to dental caries in children. Gradually, as the knowledge about the etiology and progression of dental caries increased, it was concluded that dental caries in children is a multi-factorial disease. Hence, the term early childhood caries (ECC) was given by Davies (1998).

According to the AAPD (American Academy of Pediatric Dentistry), ECC is defined as the presence of one or more decayed (non-cavitated or cavitated), missing (due to caries), or filled tooth surfaces in any primary tooth in a child under the age of 6. In children younger than 3 years of age, any sign of smooth surface caries is indicative of severe early childhood caries (S-ECC) [2].

Early childhood caries can be an aggressive form of disease; having wide-spread health issues. We are concerned for the early childhood caries in the primary dentition as

1. There is high risk of new carious lesions in both primary and permanent dentition.
2. It leads to pain, disturbed sleep, under nutrition, irritability in infants.
3. High treatment costs
4. Risk of delayed physical growth and development.
5. Loss of school days
6. Diminished ability to learn and poor oral health related quality of life.
7. Early extraction of teeth can lead to malocclusion.

In the present scenario, high intake of carbohydrate – rich diet is the major cause for increased dental caries. This, along with poor oral hygiene and feeding practices may make a child more susceptible to dental decay. Children with special health care needs, malnutrition, low birth weight, poor oral hygiene practices and working parents need more attention to prevent ECC.

Following guidelines are recommended to prevent ECC and also lay the foundation to a good oral health for all the children [2,3,4].

1. Breast – feeding of infants is recommended to ensure the best possible health, developmental and psychosocial outcomes. Cleaning the gum pads after each feeding is essential.
2. It is mandatory to start brushing as the first primary tooth begins to erupt and other dietary carbohydrates are introduced.
3. Discontinue bottle feeding after the first birthday.
4. Breast feeding should not be continued beyond the weaning age, i.e 12 - 15 months.

5. *Ad-libitum* breastfeeding after the introduction of other dietary carbohydrates should be discontinued.
6. A feeding cup should be introduced by the age of 6-8 months.
7. The first dental visit of the child should be scheduled before their first birthday.
8. High – sugar containing between meal snacks should be discouraged. Children should be encouraged to eat fibre – rich foods as between meal snacks, like fruits and vegetables. The same policy should also be implemented in the vending counters of the schools.
9. Awareness on the diagnosis, prevention and treatment of ECC should be increased among dentists, physicians, pediatricians, nurses, midwives and other community health workers involved in care of preschool children
10. A dental home for each child should be established within 6 months of the eruption of first tooth and no later than 12 months of age to conduct a caries risk assessment and provide parental education including anticipatory guidance for prevention of oral disease.

Children are the future of tomorrow. Hence, it is of utmost importance that proper measures be taken to provide them with good oral health related quality of life.

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