Promoting Awareness, Preventing Pain: Facts on Early Childhood Caries (ECC)

Early childhood caries (ECC), or baby bottle tooth decay, is rampant caries in the primary teeth of infants and toddlers. ECC is caused by frequent and prolonged exposure of the teeth to sugar and the bacteria Streptococcus mutans. This exposure is often the result of a child going to bed with a bottle or drinking at will from a bottle during the day. The relationship between a mother’s oral health and that of her infant is important. Dental caries is an infectious disease, and reducing a mother’s cavity-causing bacteria will limit the amount of bacteria that is passed on to her baby.1 Most cases of ECC are preventable, but early detection is necessary to prevent or stop the progression of this disease.

How Many Children Have ECC?

Five to 10 percent of young children have ECC. Twenty percent of children from families with low incomes and 43 percent of children in some American Indian populations have ECC.2 Approximately 8 percent of children ages 2–5 continue to use a bottle. Of these, 48 percent have gone to bed with a bottle containing something other than water.3 Some children with special health care needs are fed from a bottle at an older age. This may increase their risk of ECC.4

What Are the Costs of ECC?

ECC dramatically increases a child’s risk of future dental caries.5 Young children with untreated dental caries may develop poor eating habits, speech problems, and socialization problems related to low self-esteem. Children with ECC can weigh significantly less than their counterparts. If children with ECC receive comprehensive dental care, significant “catch-up” growth can occur.6 Treatment of ECC may require extensive restorative work, stainless steel crowns, and tooth extraction, which may involve sedation or general anesthesia.7 The cost to treat ECC is $1,000–$2,000 per child. If general anesthesia is used, the cost can be as much as an additional $6,000.8

How Can ECC Be Prevented?

To reduce the risk of ECC, parents and caregivers should:

• Never put a child to bed with a bottle
• Introduce a cup by 6 months of age; encourage the transition from bottle to tippy cup or small cup by 12 months of age

The knee-to-knee position, being used by a dental professional and caretaker to examine a young child’s teeth.
What Can Health Professionals Do?

Children visit medical providers about six times in the first year of life, so educating these providers to recognize ECC and its risk factors is critical.12

Health care professionals can refer families to dentists and other oral health professionals, distribute educational materials for families in a variety of languages and reading levels, and instruct parents in the "Lift the Lip" procedure.

Health care professionals should remind parents and caregivers to clean their infant's teeth with a soft brush or moist cloth as soon as the teeth erupt.

Programs such as WIC provide a unique opportunity for dietitians and nutritionists to educate parents about the relationship between feeding practices and good oral health.4

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References


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