
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.



Early childhood caries.

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.

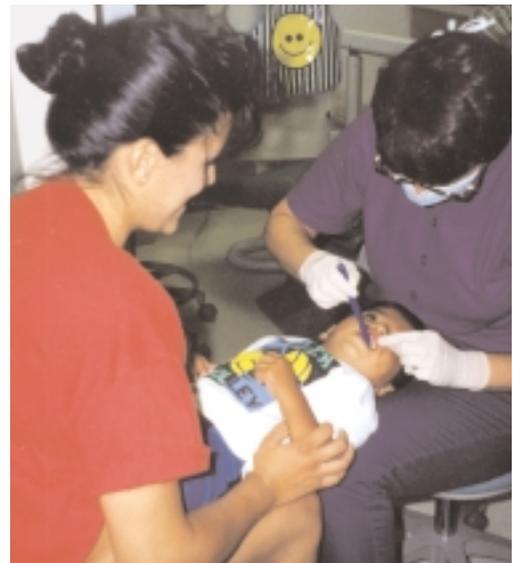
Children with ECC can weigh significantly less than their counterparts. If children with ECC receive comprehensive dental care, significant "catch-up" growth can occur.⁶

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

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.

How Can ECC Be Prevented?

- Schedule the first dental visit by 12 months of age
- Reduce frequent sugar consumption
- Give fluoride supplements at 6 months only as recommended by the health professional, based on the level of fluoride in the infant's drinking water.
- For infants and children up to age 2, clean their teeth daily with a small toothbrush or a moist cloth
- For children ages 2–6 years, clean their teeth daily with a toothbrush and a smaller-than-pea-sized amount of fluoridated toothpaste

Parents and caregivers should examine their children's teeth on a regular basis. The "Lift the Lip" procedure—lifting a child's lip to look for decay on the outside and inside surfaces of the four upper front teeth—should be performed once a month. It takes less than a minute and can alert adults to early signs of decay.⁹

One *Healthy People 2000* objective is to increase the percentage of parents and caregivers who know and use ECC-preventive feeding practices to at least 75 percent.¹⁰

The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) component of the Medicaid program could be a powerful tool in the early identification and treatment of ECC. However, in 1995, less than 20 percent of children eligible for dental services under Medicaid/EPSDT received a single preventive dental service.¹¹

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

Dietitians, nutritionists, and other health care professionals can recommend foods, beverages, and snacking behaviors that promote good oral health.⁴

References



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