

Tooth Decay in Young Children

Dental caries (cavities or holes in teeth caused by decay) is the most common chronic childhood disease and occurs five times more often than the next most widespread disease, asthma (CDC, 2000). Early Childhood Caries, also called baby bottle tooth decay, is the term used for dental disease in infants, toddlers and preschool-age children, and may happen in children as young as 6 to 12 months.

What causes tooth decay?

Caused by *Streptococcus mutans* and *Lactobacillus* species that are able to produce lactic acid, dental caries can spread from one person to another. Children are not born with these bacteria, but are infected some time in their early life. Usually the bacteria is passed from the mother or caregiver to the child via saliva through shared toothbrushes, utensils, cups, or pacifiers that have been “cleaned” with saliva.

How does dental caries develop?

Four factors play roles in the development of caries: a vulnerable tooth; acid-producing bacteria; fermentable carbohydrates (sweet liquids, juice, milk, formula); and time (how long or how often teeth are exposed to sugar). Together these factors create an environment for the bacteria to multiply rapidly, and produce acids that slowly dissolve the minerals in teeth, causing tooth decay. Young children are especially at risk because they depend on adults to provide adequate oral care.

How can you recognize dental caries?

The appearance depends on how advanced the dental caries is.

- A dull white band along the gumline is the first sign of demineralization (reduced calcium in the tooth.)
- A yellow, brown or black collar around the neck of the teeth indicates that the demineralization has progressed to cavities.
- Teeth that look like brownish black stumps indicate that the child has advanced cavities.



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Why be concerned about baby teeth?

Healthy baby teeth guide permanent teeth into place. For many children, tooth decay can be severe and painful, can interfere with eating, sleeping, speaking, learning and playing, and may cause low self-esteem. Treatment can be expensive and require general anesthesia.

How can tooth decay be prevented?

As a bacterial infection caused by specific bacteria, caries is preventable. You and your child care provider can play an important role in reducing the risk of early childhood caries, protecting your child's smile and health.

Reduce bacterial transmission to children

- Minimize the bacteria in your mouth by brushing and flossing your teeth and visiting your dentist regularly, especially when pregnant.
- Avoid saliva-to-saliva contact with your child by not sharing spoons, chewing food for your baby, or putting pacifiers in your mouth.

Start cleaning teeth early

- As soon as your infant's first tooth erupts, wipe it daily with a clean damp cloth. Switch to a small soft toothbrush as more teeth come in.
- Brush children's teeth twice a day until they can brush alone (around age 4 or 5), then closely supervise to ensure proper brushing and use of toothpaste.
- Encourage swishing the mouth with water after meals to dislodge food particles from teeth.
- Take infants for a dental exam by the age of 1 year or as the first teeth emerge.

Use care if bottle feeding

- Breastfeed your baby—it is the healthiest option and breastfed babies have a reduced risk of dental caries. If bottle feeding is necessary, take the bottle away when the child has had enough.
- Never allow the child to fall asleep with a bottle of milk, formula, fruit juice, or sweetened liquids.
- Introduce a feeding cup between age 6 to 8 months. Wean from the bottle by the first birthday.
- Encourage children to drink water rather than fruit juices or sweet drinks when thirsty.

by A. Rahman Zamani, MD, MPH

References and Resources

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The Oral Health of California's Children: Halting a Neglected Epidemic, The Dental Health Foundation, 2002.

Early Childhood Caries, California Dental Association. www.cda.org/articles/babybottle.htm.