

Beyond Tooth Decay: Comprehensive Oral Health In Early Childhood

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Pediatric Dental Caries in the US

- Tooth decay is the most common chronic childhood disease—five times more common than asthma*—and the #1 unmet health care need among Head Start children.
- Nationally, 28% of all preschoolers between the ages of two and five suffer from tooth decay**
- Pediatric dental caries disparately affects children from poor, minority, and immigrant families**:
 - More likely to have untreated tooth decay
 - More likely to experience dental pain
 - Less likely to see a dentist

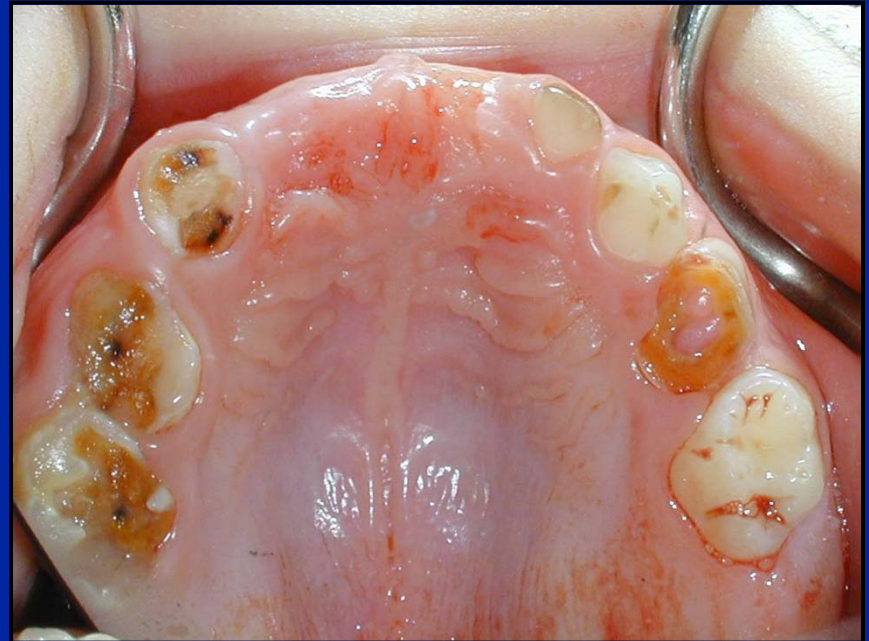
* Edelstein, Burton. "Disparities in Oral Health and Access to Care: Findings of National Surveys. Ambulatory Pediatrics". March-April 2002:2(2) Supplement.

** Dye BA, Tan S, Smith V, Lewis BG, Barker LK, Thomton-Evans G. et al. Trends in oral health status: United States, 1988-1994 and 1999-2004. National Center for Health Statistics. Vital Health Stat 11, 2007.

*** Kenney, Genevieve; Ko Grace, Ormond Barbara. "Gaps in Prevention and Treatment: Dental Care for Low-Income Children". The Urban Institute. Series B. No. B-15. April 2000.

Early Childhood Caries (ECC)

- In US, 51 million hours of school missed due to poor oral health
- Causes poor nutrition, decreased learning, altered dental development, pain and interferes with proper socialization



CDC Report

Press Release

National Center for Health Statistics

Office of Communication, (301) 458-4800

Oral Health Improving for Most Americans, But Tooth Decay Among Preschool Children on the Rise

“...tooth decay in primary (baby) teeth increased among children aged 2 to 5 years, according to a report released today by the Centers for Disease Control and Prevention”...

New York Times

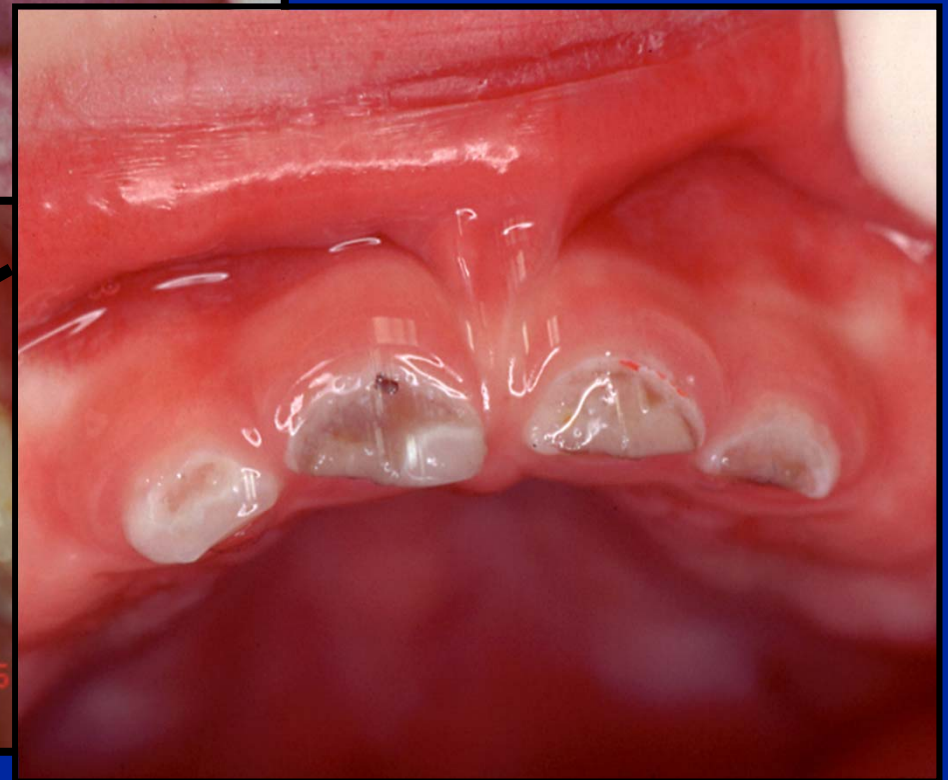
Boom Times for Dentists, but Not for Teeth

By ALEX BERENSON

For American dentists, times have never been better. The same cannot be said for Americans' teeth.

Previously unreleased figures from the Centers for Disease Control and Prevention show that in 2003 and 2004...**27 percent of children and 29 percent of adults had cavities going untreated.** The level of untreated decay was the highest since the late 1980s and significantly higher than that found in a survey from 1999 to 2000.

Dental Caries Causes Cavities



Early Childhood Caries (ECC): Risk Factors

- Mutans streptococci of patient and mother
 - Plaque accumulation and caries history
 - Diet and bottle/training cup use
 - Breastfeeding
 - Fluoride exposure
 - Enamel hypoplasia
 - Social status
 - Stress
 - Medical history
-
- Multivariate prediction models



Correlation Between Maternal and Infant Oral Health

- Studies show that mothers with high caries rate have a higher risk of preterm delivery and low birth weight babies.
- Other systemic risks to mother can effect fetus and newborn.
- Transmission as newborn. Cesarean births have earlier colonization and may have higher caries rates. May not get protective bacteria.
- Colonization of *S. mutans* at 18-30 months. Need to reduce sharing of saliva. Must intervene early.

Why A 1 year-old Needs A Dentist

- Establish Dental Home
- Risk Assessment
 - Sentinel
- Education and Anticipatory Guidance
- Prevention
- Early Intervention And Treatment



Indicators For Risk Assessment

- Social history
- Medical and delivery history
- Parental and sibling history
 - Maternal oral health
- Trauma history
- Oral habit history
- Soft tissue history
- Dietary habits
- Fluoride exposure
- Caries history
- Bacterial assays



Knee-To-Knee Examination

- Provider
 - Good Access
 - Control
 - Demonstrate
 - Oral Evaluation
- Parent Observes
 - Soft tissue
 - Oral Hygiene
 - Dentition
 - Caries
 - Prevention

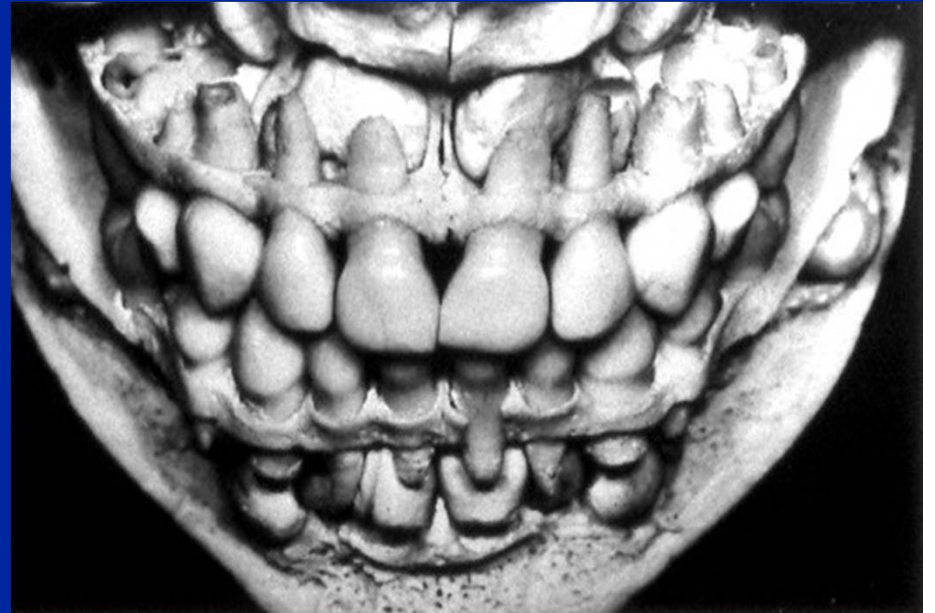


Health

- Soft tissue
- Size, Shape, Color
- Spacing
- Occlusion
- Plaque
- Demineralization



Oral Development



Teething

- The Myth and Science of Teething
 - Once thought to cause childhood deaths
 - Currently associated with:
 - Slight increase in temperature
 - Drooling, biting, irritability, poor sleep, facial rash and poor appetite

Thumb and Finger Habits

- Most stop by 2-3 yr.
- Effects oral tissue and digits
- Not associated with bottle or breast feeding
- Concern if sudden onset



Thumb and Finger Habits: Oral Manifestations

- Anterior open bite, reduced arch width
- Restricts incisor eruption
- Altered skeletal growth
- Potential for temporomandibular joint disorder
- Behavioral management until age 4-5



Trauma

- Craniofacial
- Dental and soft tissue
- Electrical
- Child abuse
- Emergency contacts



Dental Home Initiative

Office of Head Start is working at the national, regional, state and local levels to develop a network of pediatric and general dentists to link Head Start and Early Head Start children with a “**Dental Home**” – a place where each child's oral health care is delivered in a comprehensive, ongoing, accessible, coordinated, and family-centered way.

Head Start Dental Home Initiative

- Establish Dental Home for nearly 1 million Head Start children
- Peer to Peer Network
- NY Co-State Leaders:
 - Dr. Amr Moursi, NYU
 - Dr. Courtney Chinn, Columbia University

Contact Information

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Resources

- Amer. Acad. Of Pediatric Dentistry: aapd.org
- Amer. Acad. of Pediatrics: aap.org
- National Maternal and Child Oral Health Resource Center: mchoralhealth.org

