

Why is the Dentist Involved?

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Disclosure

I have no financial disclosures or related conflicts of interest.

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Objectives

- Define the role of the pediatric dentist
- Describe breastfeeding concerns you should take to the pediatric dentist
- Describe pediatric dentist's surgical techniques
- Discuss breastfeeding's impact on oral health

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UMN Masonic Children's Hospital



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Types of dentists

- General/Family dentist
 - 4 years of college
 - 4 years of dental school
- Pediatric dentist
 - Additional 2-3 years of residency
 - Hospital experience
- Oral surgeon
 - Additional 4-6 years of residency
- GPR residency
 - Optional 1 year residency with hospital experience



WHAT IS A PEDIATRIC DENTIST?

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Pediatric Dental Residency Programs



- 96 pediatric dental residency programs
 - 5 programs in California
- 2 – 3 years after dental school
- Results in a certificate
- Optional board-certification process
 - 90% of pediatric dentists are board-certified

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Pediatric Dentists

- Approximately 9,200 pediatric dentists in the US
 - ~750 in California
- Specialize in infants, children, adolescents, individuals with special health care needs
- Focus on growth and development
- Extra training in behavior management



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PEDIATRIC DENTISTS AND BREASTFEEDING

- Natal and neonatal teeth
- Pre-dentate ankyloglossia and frena attachments
- Post-dentate dental caries and malocclusion



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Natal & Neonatal Teeth

- 1:1,000 – 1:30,000 live births
- Early eruption of lower primary incisors
 - Not “extra”
 - Typically erupt at 6 – 9 months
- Natal = present at birth
- Neonatal = present within the 1st month of life
- Immature



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Natal & Neonatal Teeth

- Sequelae
 - Aspiration risk
 - Sublingual ulceration (“Riga-Fede disease”)
 - Breastfeeding issues
 - Nipple ulceration (?)
- Treatment
 - Monitor
 - Palliative enameloplasty or restorative covering
 - Extraction



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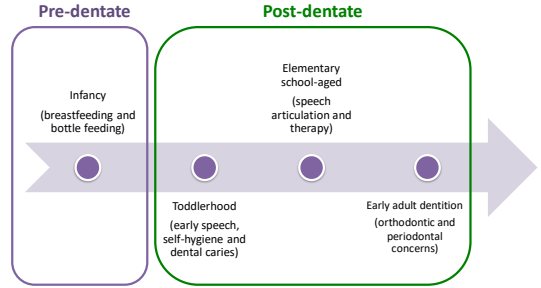
Natal & Neonatal Teeth

- Extraction indications
 - Mobile teeth
 - Injury to the tongue and soft tissues
 - Interference with breastfeeding



- Extraction considerations
 - Anesthetic
 - Benzocaine contraindicated
 - Potential for hemorrhage
 - Behavioral approaches

Ankyloglossia & Frena Attachments



DDS/DMD Dental Education

Ankyloglossia and Frena Attachments

Perinatal and Infant Oral Health Care

Review Council
 Council on Clinical Affairs
Latest Revision
 2016

Purpose
 The American Academy of Pediatric Dentistry (AAPD) recognizes that perinatal and infant oral health are the foundations upon which preventive education and dental care must be built to enhance the opportunity for a child to have a lifetime free from preventable oral disease. Recognizing that dentists, physicians, allied health professionals, and community organizations must be involved as partners to achieve this goal, the AAPD proposes guidelines for perinatal and infant oral health care, including caries risk assessment, anticipatory guidance, preventive strategies, and therapeutic interventions, to be followed by the stakeholders in pediatric oral health.

Method
 Recommendations on perinatal and infant oral health care were developed by the Infant Oral Health Subcommittee of the Clinical Affairs Committee and adopted in 1986. The purpose surveys, but the filled component (6) has greatly increased indicating that more treatment is being provided.¹ ECC and the more severe form of ECC (i.e., s-ECC) begin soon after tooth eruption, developing on all surfaces of primary teeth, progressing rapidly, and having a lasting detrimental impact on the dentitions.^{2,3} This disease affects the general population, but is 32 times more likely to occur in infants who are of low socioeconomic status, who consume a diet high in sugar, and whose mothers have a low education level.⁴ The consequences of ECC often include higher risk of new carious lesions in both the primary and permanent dentitions,^{5,6} hospitalizations and emergency room visits,^{7,8} high treatment costs,⁹ loss of school days,¹⁰ diminished ability to learn,¹¹ and reduced oral health-related quality of life.¹² It has been reported that 89 percent of children age one year had an office-based physician visit, compared with only 1.5 percent who had a dental office visit.¹³ In a recent study

Guideline on Infant Oral Health

“Discussion regarding atypical frenum attachments that may be associated with problems with breast-feeding. In some cases, frenuloplasty or frenectomy may be a successful approach to facilitate breast-feeding; however, there is a need for more evidence-based research to determine indications for treatment.”

Guideline on Infant Oral Health

“Discussion regarding atypical frenum attachments that may be associated with problems with breast-feeding. In some cases, frenuloplasty or frenectomy may be a successful approach to facilitate breast-feeding; however, there is a need for more evidence-based research to determine indications for treatment.”

Pediatric Dentists

What we can do

- Promote breastfeeding
- Work with IBCLCs, pediatricians, ENTs, other health care providers to coordinate care
- Perform surgical procedures to correct diagnosed issues
- Support more research in this area

What we need you for

- Diagnose breastfeeding issues
- Identify indications for surgical procedures
- Further educate dentists on breastfeeding issues
- Support more research in this area

Pediatric Dentists' Current CE



<https://www.lightscalpel.com/products/co2-lasers/lc-2010-surgical-laser/>



<http://www.convergentdental.com/solea/>

Pediatric Dental Surgical Tools

Scalpel

- Familiar
- Readily available
- Potential for bleeding complications
- May be inadequate



Various scalpels

Cautery

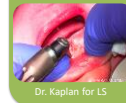
- Familiar
- Readily available
- Provides good hemostasis
- Adequately ablates tissues



Post-cautery

Laser

- Less familiar
- Expensive capital investment
- Provides good hemostasis
- Adequately ablates tissues



Dr. Kaplan for LS

PEDIATRIC DENTISTS' SURGICAL TECHNIQUES

Behavior Management



Used with permission from Dr. Dusty Janssen, Parkview Pediatric Dental



https://www.quickmedical.com/dental/circumstraint/papoose_bands



<https://www.nytimes.com/2012/03/06/health/first-in-preschool-cavities-growth-and-tooth-use.html>

BREASTFEEDING AND ORAL HEALTH

Early childhood caries

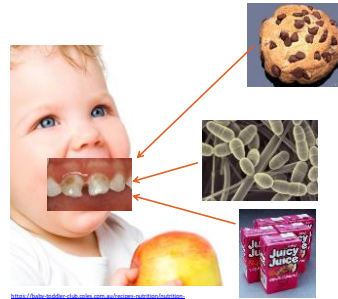
- Early childhood caries is the most common chronic disease of childhood
- 50% of Kindergarteners have had at least one cavity
- Disproportionately affects children of color, low SES
- Infectious disease process through transmission



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Dental Caries: The Process



- Fermentable carbohydrates
- *Streptococcus mutans* and other cariogenic bacteria
- Dietary acid
- Time

<https://dental.mayoclinic.org/conditions/dental-caries/about/overview/dental-caries-process>

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Breastfeeding and Dental Caries

- Exclusively breastfeeding is NOT linked to dental caries
 - May be protective against ECC because of its other health benefits
- Contains components that inhibit growth and attachment of oral bacteria
 - *Lactobacilli* sp.
 - Human casein
 - Secretory IgA



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Breastfeeding and Dental Caries

- Breastfeeding up to a 1 year
 - Meta-analysis showed lower risk of dental caries in those who breastfed longer compared to those who breastfed less than 1 year (Tham 2015)
- Breastfeeding after the 1st year
 - Canadian study showed breastfeeding more than 24 mos was significantly associated with 2-3X increase in ECC (Wong 2017)
- NHANES study found no evidence of a relationship between duration and increased risk of caries
 - (Tanaka 2015)

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Breastfeeding and Dental Caries

- With eruption of teeth, the oral microbiome changes
- New bacteria + varied sugars can turn the natural sugars in breast milk into a substrate for cariogenic bacteria
- Frequency affects risk due to buffering capacity
 - Ad libitum
 - Nocturnal feedings

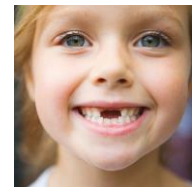


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Breastfeeding and Malocclusion

- Breastfeeding may be beneficial to prevent future malocclusions
- Promotes ideal jaw development
 - Craniofacial bones
 - Facial muscles
 - Tongue position and coordination
- May protect against misaligned primary teeth
 - Modulated by non-nutritive sucking habits



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Questions?



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