

Protecting All Children's Teeth

Preventive Care

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



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Introduction



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Associate Professor of Pediatrics at Albany Medical
Center

The effective prevention of caries involves understanding the pathogenesis—the triad of teeth, bacteria, and sugar.

Fortunately, the development of caries is almost completely preventable through improved nutrition and oral hygiene and regular dental care.

This presentation presents an in-depth discussion of each prevention method to assist in oral health counseling and anticipatory guidance.

Learner Objectives



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Upon completion of this presentation, participants will be able to:

- Accurately counsel families on child oral hygiene practices
- List nutrition practices that increase the risk of caries development
- List practices that decrease the transmission of cariogenic bacteria to children and delay oral colonization
- Recall the recommended timing for establishment of a dental home.
- Discuss the placement and benefits of dental sealants
- Provide age-based oral health anticipatory guidance

Brushing

Before teeth erupt, caregivers should wash the gums and tongue with a wet washcloth after feedings.

When the first tooth erupts, begin brushing with a soft-bristled, small-head brush.

The most important time to brush is at night, after the last feeding.



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Brushing, continued

Parents should brush the child's teeth at least twice a day (morning and night) by 1 year of age.

Children should not be allowed to consume any sugary liquids such as milk or juice after brushing at night (water only).



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Brushing, continued

Caregivers should position themselves behind the child.

All the surfaces of every tooth should be brushed.

Caregivers should lift the lip to brush the top gum line, pull down the lip to brush the bottom gum line, and brush the top of all the molars.



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Brushing, continued



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Toothbrushing should be performed or assisted by the parent until the child is 7 or 8 years of age.

Toothbrushing should be supervised thereafter until the child can do an adequate job of brushing alone.

Flossing

Parents should begin flossing the child's teeth as soon as the surfaces of the teeth touch one another.

Flossing should be done once a day, preferably with the evening brushing.

Flossing should be assisted by a parent until the child is 10 years old.



Paper Permission on file from Andrew Alspaugh

Fluorosis

Ingestion of toothpaste increases the risk of enamel fluorosis.

Strategies to limit the amount swallowed include limiting the amount placed on the brush, observing the child as they brush, and keeping toothpaste out of reach of young children.



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Recommendations for Fluoridated Toothpaste

The American Dental Association (ADA), American Academy of Pediatric Dentistry (AAPD), and the American Academy of Pediatrics (AAP) now all recommend a “smear” of toothpaste for children younger than 3 and a “pea-sized” amount for children ages 3 to 6.

Fluoride toothpaste is recommended from emergence of the first tooth for all children, not a decision based on risk of caries.



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Dentistry University of North Carolina

Feeding and Nutrition Practices

Eating and drinking supply cariogenic bacteria in the oral biofilm with the carbohydrates they need to grow and produce acid that can destroy tooth enamel.

The types of food chosen and the pattern of ingestion can significantly alter a child's risk for the development of caries.



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Feeding and Nutrition Practices, continued

The goal is to decrease the time that the teeth are exposed to sugars.

This can be done by:

- Decreasing the frequency and duration of sugar intake
- Promptly removing carbohydrates from the teeth
- Choosing less cariogenic foods



Paper Permission on file from J. Ho

Anticipatory Guidance

Include the following recommendations in anticipatory guidance:

- Try to stop night feedings once the teeth erupt.
- Use methods other than feeding to calm a crying child.
- If a child needs a bottle to fall asleep, it should contain plain water.
- Breastfeeding should be encouraged along with good oral hygiene and age appropriate, healthy, complementary foods.
- Discourage ad-libitum breast or bottle feeding.
- For infants who continue to feed on demand at night, parents should wipe the teeth clean after feedings.

Anticipatory Guidance, continued

- Never prop a bottle and always remove it promptly once the infant is done feeding.
- Discourage prolonged and frequent use of a bottle or sippy cup during the day unless the cup contains plain water.
- Limit drinking of sugary fluids to meals and snack times.
- Introduce a cup as soon as the child can sit unsupported (around 6 months of age).
- Try to eliminate the bottle by 1 year of age.

Nutrition Practices: Infants and Children

- Never dip pacifiers in sweeteners like honey, corn syrup, or sugar.
- Encourage planning of 3 meals with 2 snacks.
- Limit the consumption of foods high in sugar and eat them only at mealtimes.
- Avoid foods that stick to the surface of the teeth and are difficult to remove.



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Nutrition Practices: Infants and Children

- Encourage families to choose fresh fruits, vegetables, and whole grain snacks.
- Minimize juice consumption and allow juice drinking only from a cup (not a bottle or sippy cup).



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Saliva

Decreased saliva production is a risk factor for caries development.

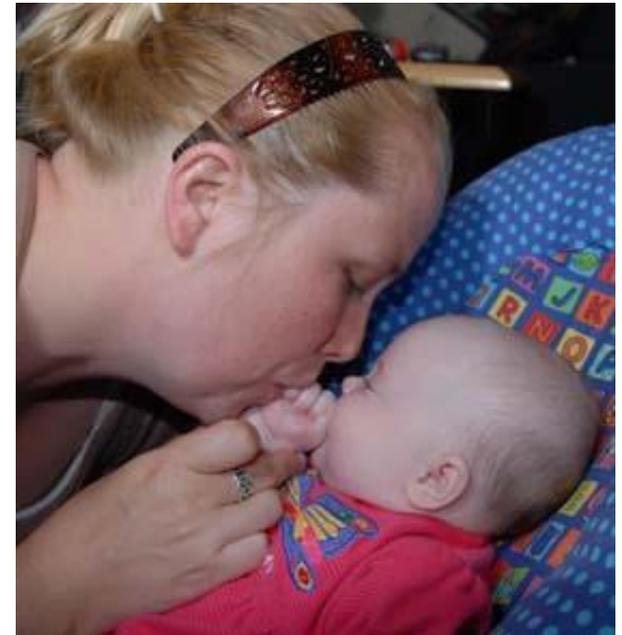
Because xerostomia is most commonly medication a side effect, prescribers should avoid medications that inhibit saliva whenever possible.

Children at risk or who are known to have xerostomia should be more closely screened for caries. These children should also be referred to a dentist early.

Delay Colonization

Dental caries has a microbial, infectious component.

Delaying colonization of a child's mouth with cariogenic bacteria may also delay the development of dental caries.



Paper Permission on file from Jamie Zaleski

Delay Colonization, continued

Modifying the oral flora of the primary caregiver can significantly affect a child's caries risk.

General anticipatory guidance for new and prospective parents before and during the colonization process is recommended.

Delay Colonization, continued

Parents should be encouraged to:

- Brush their teeth at least twice daily with a fluoridated toothpaste
- Floss daily
- Rinse nightly with a fluoridated mouth rinse
- Visit a dentist for a cleaning and have all dental disease treated
- Consume fruit juices only at meals
- Avoid carbonated beverages for the first 30 months of an infant's life
- Use Xylitol chewing gum 4 times per day

Delay Colonization, continued

Parents can theoretically minimize transmission of cariogenic bacteria via saliva transfer in the following ways:

- Do not allow children to place fingers into the parent's mouth
- Avoid sharing utensils or toothbrushes
- Do not taste an infant's food or drink and then place that food into the child's mouth
- Avoid "cleaning" a dropped pacifier with their saliva



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Dental Visits



Paper Permission on file from Michael SanFilippo

The American Academy of Pediatrics and the American Academy of Pediatric Dentistry recommend that all children be seen by a dentist within 6 months of eruption of the first tooth or 12 months of age, whichever comes first.

In communities with limited pediatric dental resources, children at risk for caries should be prioritized for establishment of a dental home by age 1.

Dental Visits, continued

It is recommended that all children be referred to a dentist by 12 months of age whenever possible.

To facilitate referrals, consider creating a list of local pediatric dentists and use this as a handout for families.

It is important to create working relationships with local pediatric and general dentists to allow for “emergent” referrals.

Dental Sealants

Sealants are a plastic material applied to the chewing surface of permanent molars that provide a physical barrier to bacterial invasion of pits and fissures.

Sealants are effective because 90% of caries lesions in school-aged children occur in the pits and fissures of molars, the place a sealant seals and protects.



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Dental Sealants, continued

The first permanent molars erupt at age 6 and the second permanent molars erupt around age 12.

Sealants can be applied at any time based on caries risk assessment performed by the dental professional.

A properly applied sealant is virtually 100% effective in preventing a cavity at the site of the sealant.

Dental Sealants, continued

Using sealants is cost-effective. One sealant costs less than half the cost of a single filling.

Sealants need to be used in addition to fluoride. Fluoride primarily benefits the smooth surfaces of teeth, whereas sealants protect the grooved surfaces.



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Fluoride

Fluoride is effective in the prevention of caries and can be delivered through many modalities.

The most important effect of fluoride is the topical effect.

Fluoride varnish materials

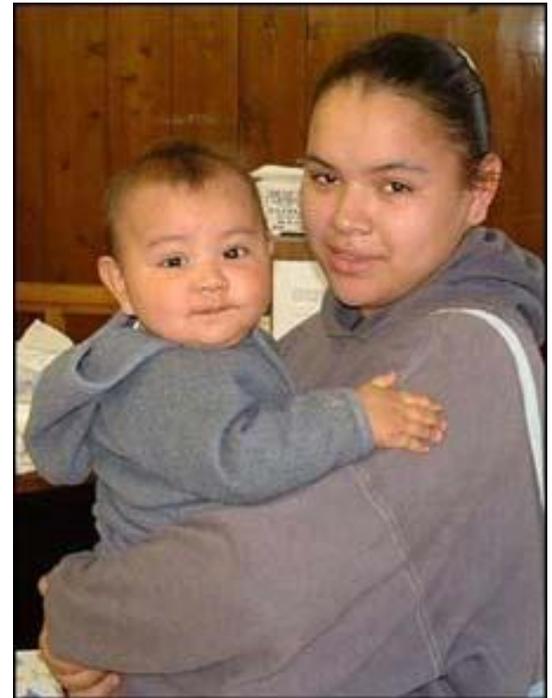


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Anticipatory Guidance

For children younger than 6 months:

- Strongly encourage breastfeeding
- Counsel parents on methods of delaying colonization with cariogenic bacteria.
- Delay introduction of juice, preferably until 1 year of age.
- Recommend drinking juice only from a cup, never from a bottle.



Paper Permission on file from Raynel Gonzales

Anticipatory Guidance: Late Infancy

For children 6 months to 1 year of age:

- Counsel parents to begin brushing once teeth erupt.
- Provide anticipatory guidance on teething care.
- Counsel parents that infants should be held when bottle-fed.
- Bottles should not be propped with infants in cribs or car seats.



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Anticipatory Guidance: Late Infancy, continued

- Introduce a cup as soon as the infant can sit unsupported (around 6 months of age).
- Try to eliminate the bottle by 1 year of age.
- Consider fluoride supplements at 6 months if drinking water is non-fluoridated.
- Provide dental referral around 12 months (approximately 6 months after eruption of the first tooth).
- Provide dental referral as soon as possible if caries are identified.

Anticipatory Guidance: Toddlers

For children 1 to 3 years of age:

- Recommend brushing at least twice daily.
- Discontinue bottle use by 12 months of age.
- If a sippy cup is offered between meals, it should contain only milk or water.
- Restrict juice to mealtimes (max 4 ounces per day).
- Limit snacks to one time between meals.



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Anticipatory Guidance: Preschool and School-Age Children

- Review brushing and flossing.
- Encourage regular dental visits.
- Review fluoride sources and prescribe fluoride if indicated.
- Limit cariogenic snacks between meals.
- Encourage families to choose fresh fruits, vegetables, and whole grain snacks.
- Recommend dental sealants for all high-risk patients.



Paper Permission on file from Sunnah Kim

Question #1

Which statement about flossing is true?

- A. It should begin when the teeth surfaces touch
- B. It typically does not require supervision
- C. It is only necessary for adults
- D. It is recommended twice a day for children
- E. It should begin at 4 years of age in all children

Answer

Which statement about flossing is true?

- A. It should begin when the teeth surfaces touch
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- C. It is only necessary for adults
- D. It is recommended twice a day for children
- E. It should begin at 4 years of age in all children

Question #2

What is the recommended age for complete weaning from a bottle to a cup?

- A. 6 months
- B. 9 months
- C. 12 months
- D. 18 months
- E. 24 months

Answer

What is the recommended age for complete weaning from a bottle to a cup?

- A. 6 months
- B. 9 months
- C. 12 months**
- D. 18 months
- E. 24 months

Question #3

Which of the following statements about dental sealants is true?

- A. Sealants are more expensive than just repairing the cavities
- B. Sealants are recommended for all children, regardless of caries risk
- C. Sealants should be applied to the primary molars after eruption
- D. Sealants are applied to the secondary molars at ages 6 and 12
- E. Sealants replace the need for fluoride use if applied properly

Answer

Which of the following statements about dental sealants is true?

- A. Sealants are more expensive than just repairing the cavities.
- B. Sealants are recommended for all children, regardless of caries risk.
- C. Sealants should be applied to the primary molars after eruption.
- D. Sealants are applied to the secondary molars at ages 6 and 12.**
- E. Sealants replace the need for fluoride use if applied properly.

Question #4

Ideally, all children should have their first visit to a dentist by what age?

- A. Only after the pediatrician identifies a problem during an office visit
- B. 1 year
- C. 2 years
- D. 3 years
- E. 4 years

Answer

Ideally, all children should have their first visit to a dentist by what age?

- A. Only after the pediatrician identifies a problem during an office visit
- B. **1 year**
- C. 2 years
- D. 3 years
- E. 4 years

Question #5

Children should be assisted in brushing their teeth until approximately what age?

- A. 1
- B. 2
- C. 4
- D. 5
- E. 7

Answer

Children should be assisted in brushing their teeth until approximately what age?

- A. 1
- B. 2
- C. 4
- D. 5
- E. 7**

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