

Front Line Health Workers

Child Oral Health



Image: Wojciech Gajda/Photos.com



Image: Jupiterimages/Photos.com



Image: Christoph Hähnel/Photos.com



Image: Getty



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Educational Objectives

- Discuss relationship between oral health and overall health
- Describe the prevalence, causes, and consequences of childhood tooth decay (Early Childhood Caries)
- Understand prevention strategies and education tools to promote child oral health
- Identify the role of FLHWs in promoting child oral health

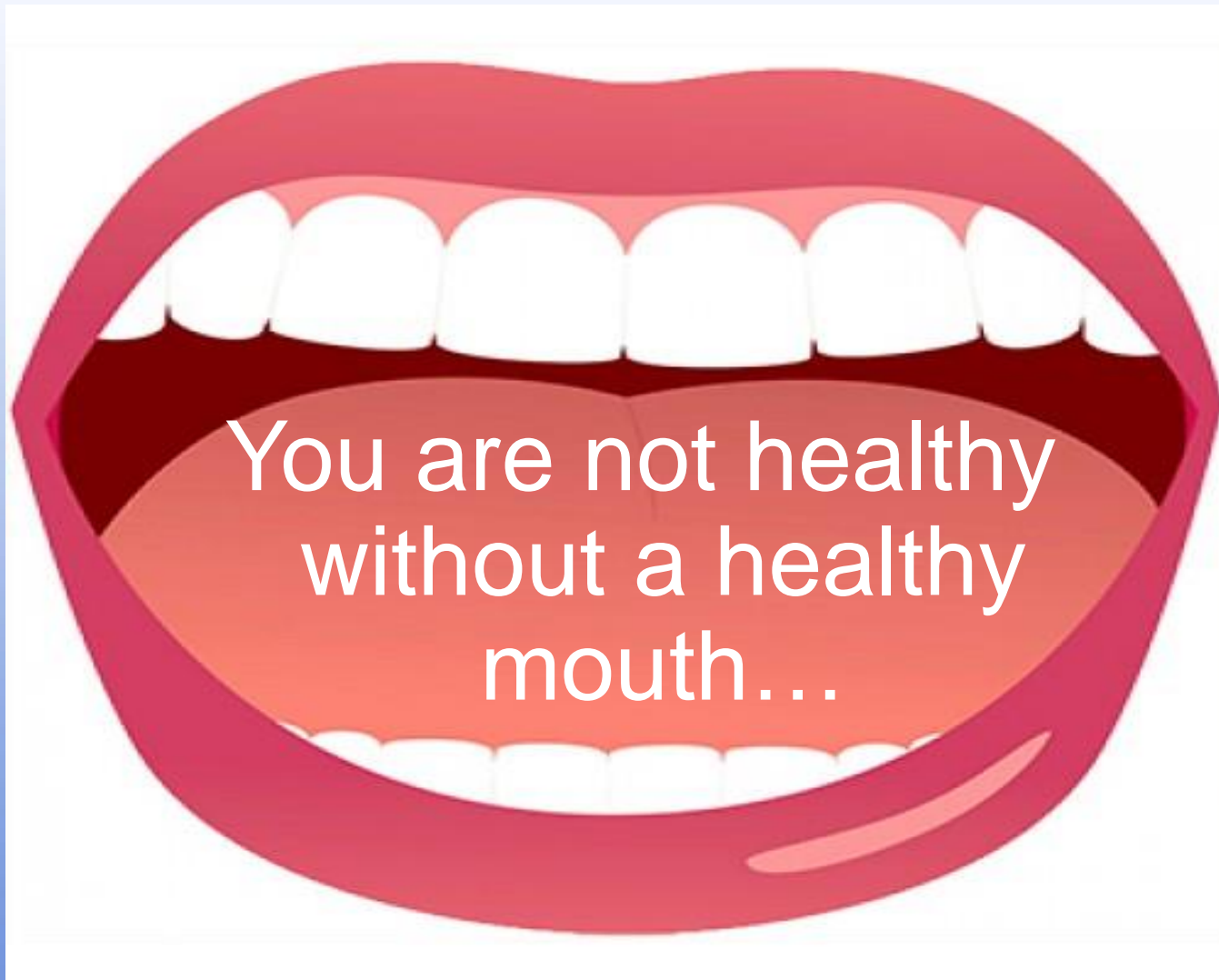
True or False?

1. No need to start brushing until a child has 2 or more teeth.
2. Primary teeth are not very important because baby teeth will be replaced.
3. A child can and should brush their own teeth before age 5.
4. Children should first see a dentist when they start preschool.
5. For children who do not like plain water, flavored water and all natural juices are a good substitute, as they don't cause tooth decay.

True or False? Continued

6. A child can fall asleep with a bottle as long as it doesn't stay in the mouth all night.
7. Fluoride products are not safe for young children.
8. Bottled water is better for teeth than tap water.
9. Children do not need to floss until they have adult teeth.
10. Dried fruit is better for children's teeth than chocolate.
11. A child can get oral bacteria from an adult.
12. How often children eat changes their risk for cavities.

The Big Picture



You are not healthy
without a healthy
mouth...

Consider these National Statistics

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Most children have a regular health care provider, for well check ups and sick care - but many lack a dental provider

- Children are over **2x** more likely to **lack coverage** that pays **for dental care** than medical care
- The number of dentists are declining **↓**, especially those that accept public insurance (Medicaid)
- Dentists often uncomfortable working with young children and those with special health care needs
- 13% of 2-19 year olds have untreated dental decay

Healthy Teeth



What do
you notice?



Photos: Joanna Douglass, BDS, DDS

Primary Teeth Are Important

- Speech development
- Appearance and self-esteem
- Chewing and nutrition
- Save space for permanent teeth



Image: Thinkstock.com

Tooth Decay

- Destroys the tooth causing:
 - ✓ Pain
 - ✓ Infection
 - ✓ Difficulty chewing
- Upper front, center teeth are least protected, so are affected first



Photos: Joanna Douglass, BDS, DDS

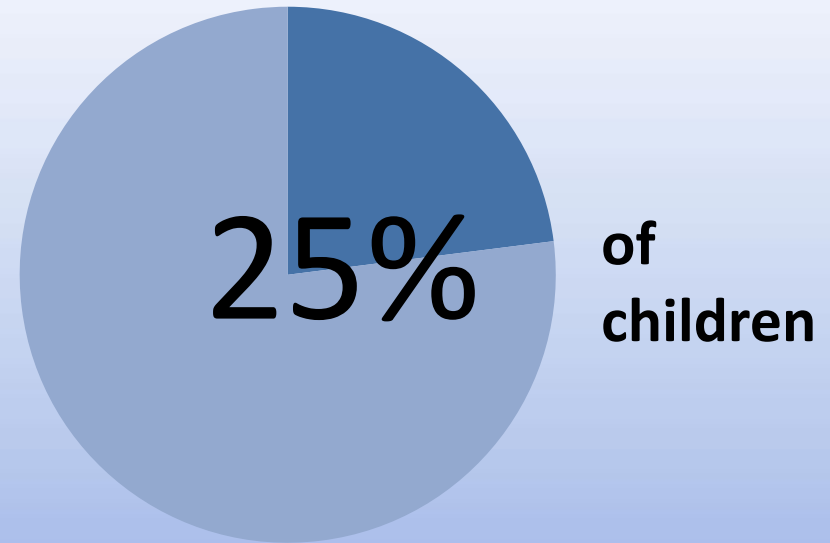
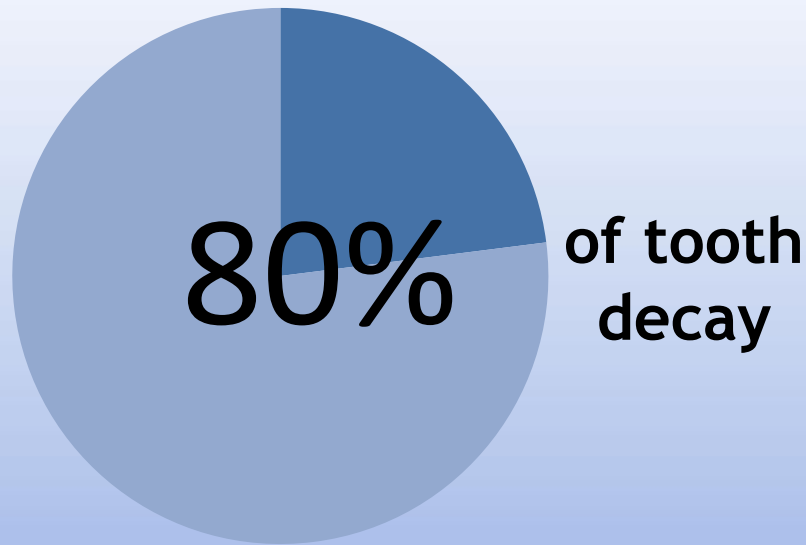
Tooth decay in primary teeth affects:

- 1 in 5 of children ages 2-5 years
- 2 or more times higher in certain ethnic groups
 - Up to 70% of Native American children



Photos: Joanna Douglass, BDS, DDS

Child Oral Health



How can we live with those numbers and say we are doing everything we can?

- Ralph Fuccillo, President of DentaQuest Foundation

Early Sign of Tooth Decay

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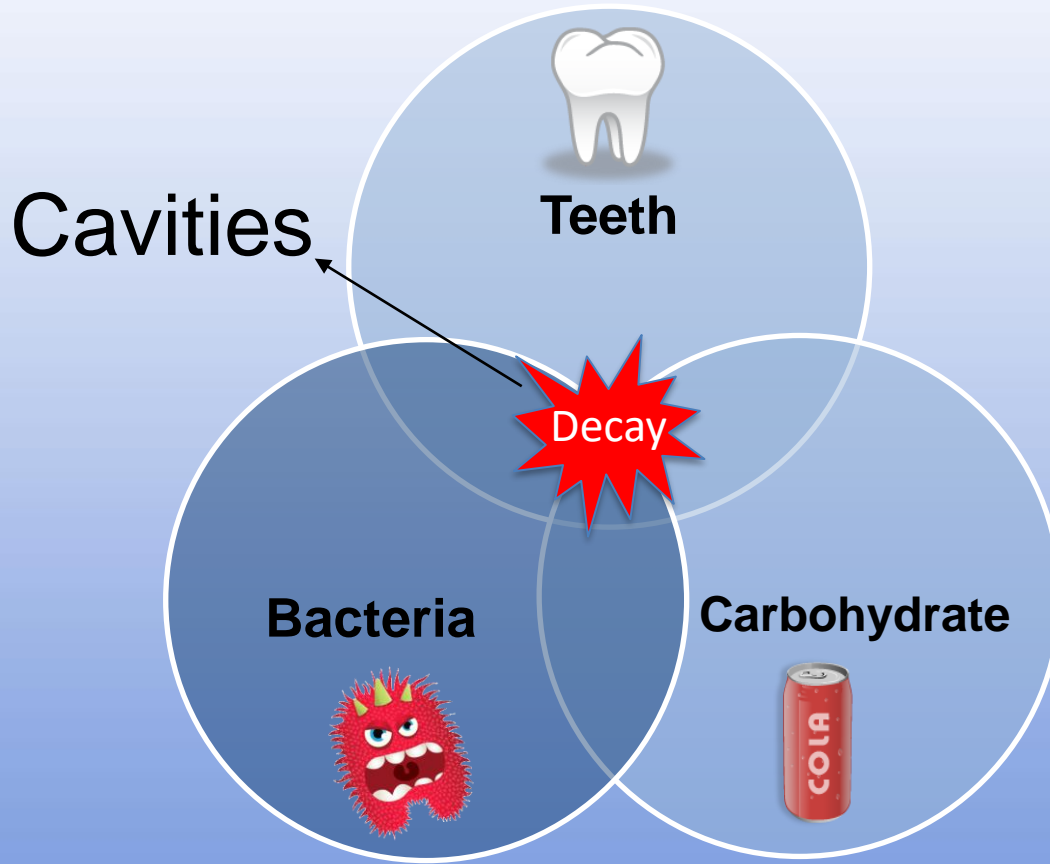
White spots can be an early sign of tooth decay



Photo: Joanna Douglass, BDS, DDS

**White spots should be seen by a dentist
Baby teeth matter!**

Cause of Tooth Decay



**Oral bacteria
+ Sugar**

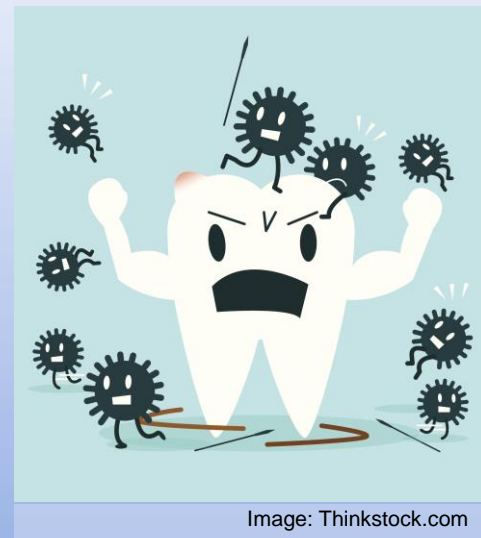
= Acid $\xrightarrow{\text{Time}}$ **Tooth Decay**



Parents and caregivers can transfer oral bacteria to their children

Risk of passing bacteria can be lowered:

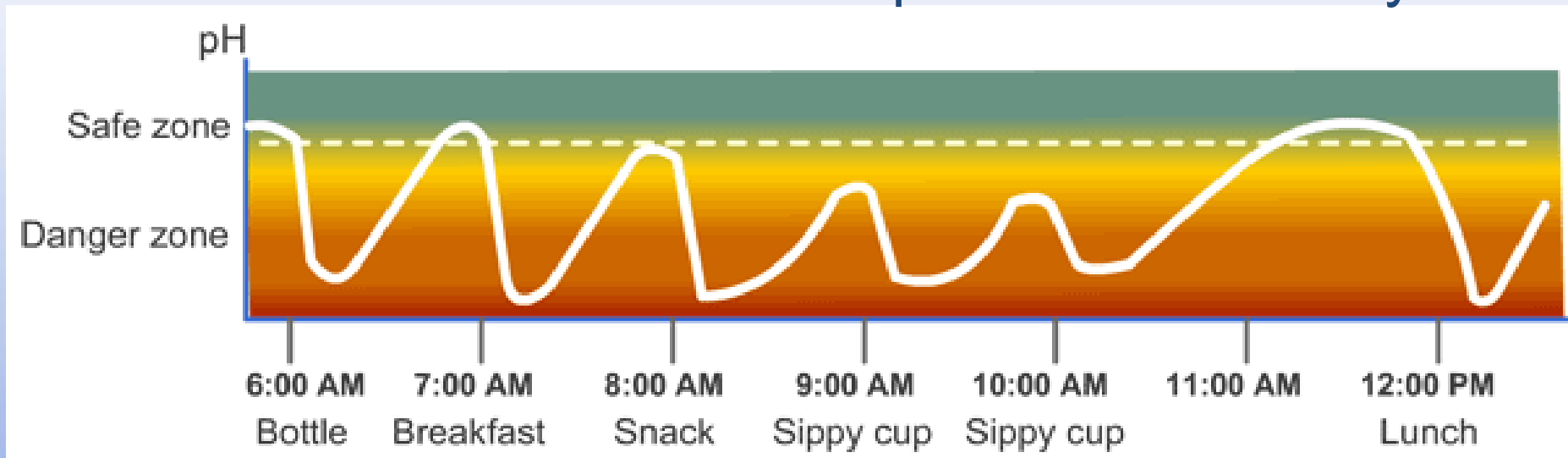
- Obtain dental care
- Limit sugar in the diet
- Maintain good oral hygiene
- Use fluoride-containing toothpaste
- Use antibacterial mouth rinse and chew xylitol gum
- Don't share eating utensils, toothbrushes, cups, or straws



It's not just what we eat, but how often

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Teeth need “time-outs” to protect from decay



- Acid remains 20–40 minutes after sugar enters the mouth, until neutralized by saliva
- Acids weaken the tooth enamel
- If sugars are consumed frequently = more acid attacks = tooth decay

Risk Factors for Tooth Decay

- Low socioeconomic status
- Cultural factors
- Enamel defects
- Caries in child, siblings or caretakers
- Feeding habits
- Poor oral hygiene
- Inadequate exposure to fluoride
- Special health care needs

Impact of Early Tooth Decay

- Pain
- Chewing and nutrition problems
- Infection
- Increased cavities in permanent teeth
- School/work absences
- Difficulty sleeping
- Poor self-esteem
- Children with dental pain over 3x more likely to have a lower grade point average



Photo: Donald Greiner, DDS, MS



Photo: Joanna Douglass, BDS, DDS

Oral Bacteria Can Spread...

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- Mouth
- Sinuses
- Face and neck
- Brain
- Through the bloodstream to other parts in the body

Untreated oral infections can spread and become life threatening



Photo: ICOHP

Dental Pain

- **Communicating pain is difficult for many children**
- **Behavioral signs of pain include:**
 - Pulling at face
 - Not eating
 - Crying and sleeping poorly
- **Child should be checked for:**
 - Cheek and gum swelling
 - Broken, decayed, or loose teeth
 - Ulcers or infections



Artwork: Joseph Wrightson

Prevention

- Oral health education
- Tooth brushing
- Fluoride
- Diet
- Dental care



Image: Shutterstock.com

Preventing Cavities

- Tooth brushing
- Fluoride
- Healthy diet
- Dental care

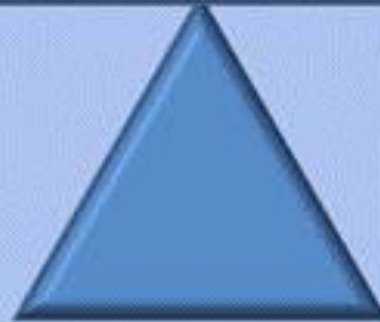
- Dietary sugar
- Poor dental hygiene/care
- Dry mouth



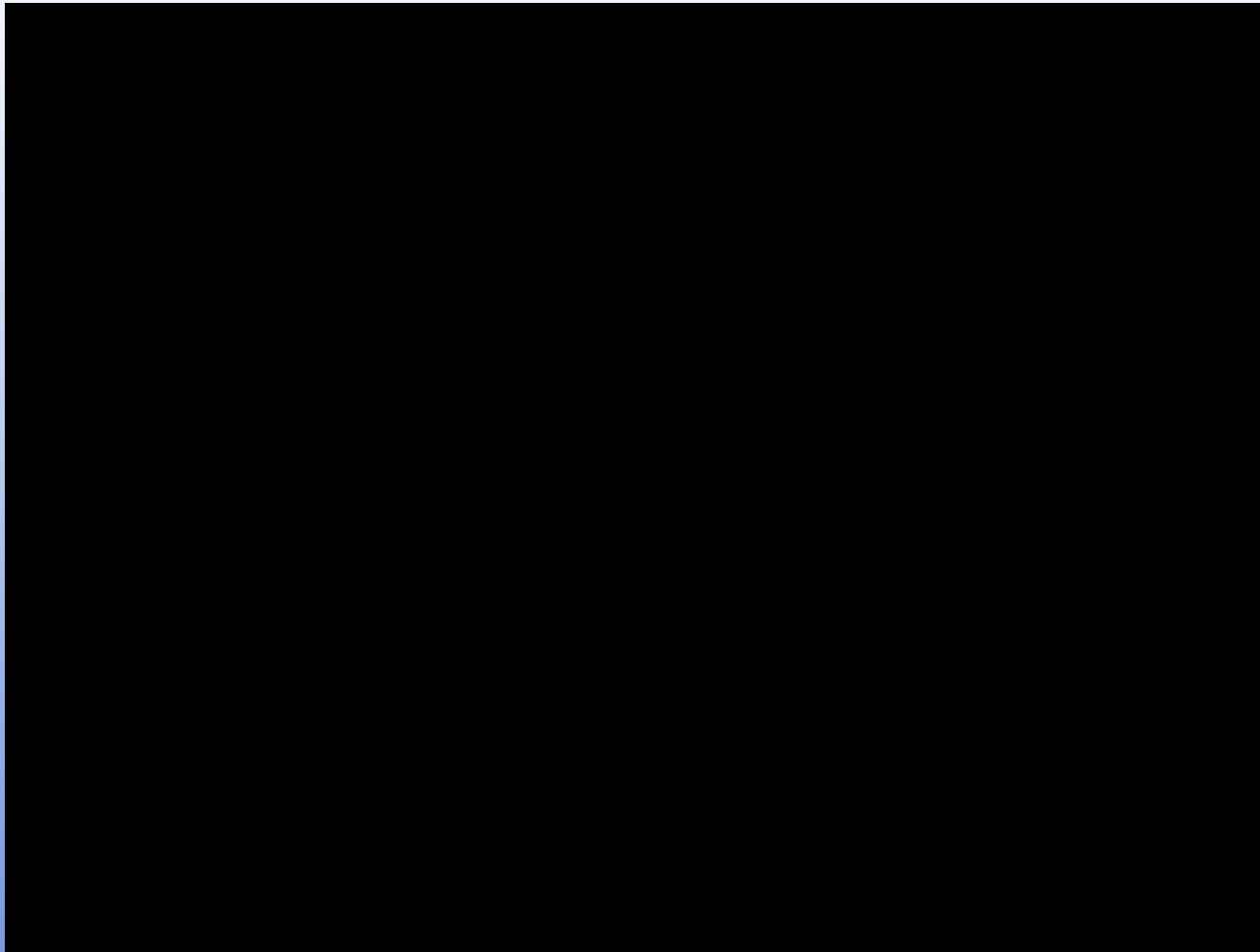
No caries



Caries



Tooth Brushing



Courtesy of [From the First Tooth](https://www.youtube.com/watch?v=1uy3laXAYVQ) – with permission
www.youtube.com/watch?v=1uy3laXAYVQ

Tooth Brushing

- Wipe gums after feeds before teeth erupt
- Brush twice daily as soon as teeth erupt
 - Bedtime is most important time
- Use soft toothbrush
- “Just spit” - Do not rinse mouth after brushing
- No food or drink after brushing
- Floss daily between teeth that touch

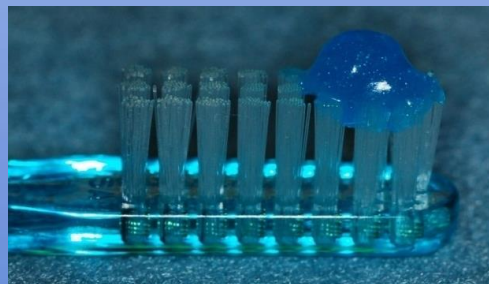


Image: Rocio Quinonez, DMD, MS, MPH

Brushing Techniques

Lift the lip



Brush behind teeth



- Lift the lip and brush all tooth surfaces, especially along gum line
- Brush using small backward and forward movements or small circles

Fluoride is very important in preventing tooth decay



Sources of fluoride:

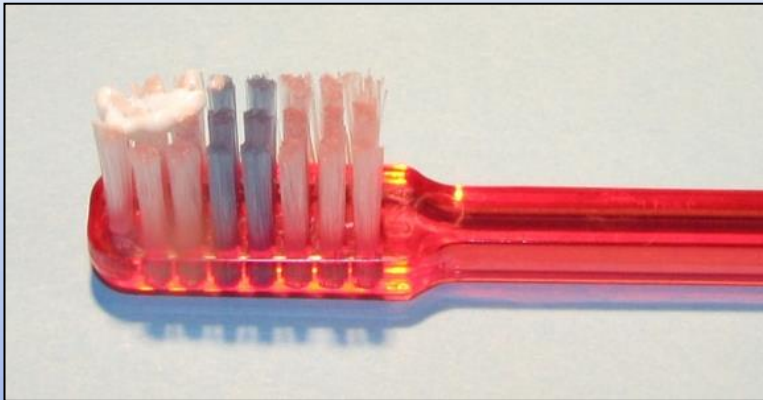
- Water
- Toothpaste
- Mouthrinse
- Fluoride varnish, gel, foam
 - All professionally applied
- Prescription fluoride supplements



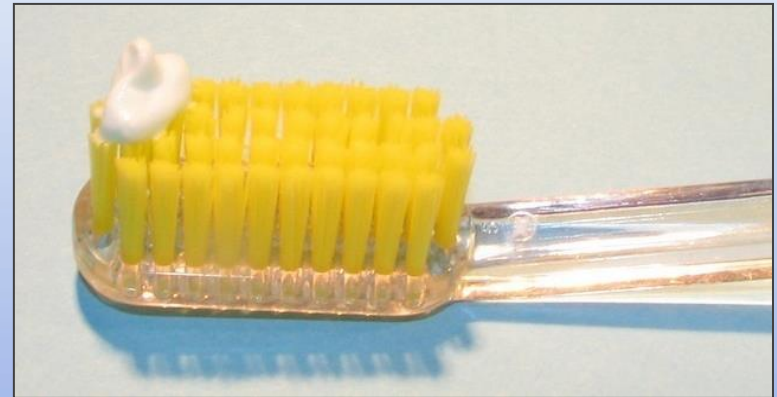
Photos: Joanna Douglass, BDS, DDS

How Much Toothpaste?

Small smear or “grain of rice”:
Less than 3 years of age



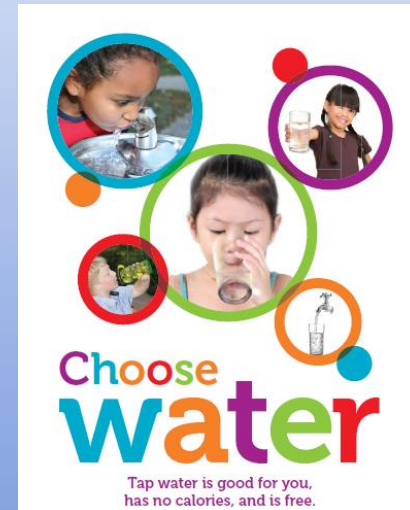
Pea sized:
All children ages 3 and older



- Most preschool children swallow toothpaste on the brush
- Encourage spitting, but small amounts safe to swallow
- Keep toothpaste tubes out of reach of small children

Diet and Oral Health

- Introduce sippy cup at 6 months, monitor use
 - No bottle to bed, wean bottle by 12 months of age
 - Do not eat or drink before bed after brushing teeth
- Encourage children to drink water
 - Safest drink for tooth decay
 - No calories
- Juice
 - Do not serve to infants under 1 year of age
 - Limit juice intake at all ages
 - Serve only 100% fruit juice, no “fruit drinks”



Fruit and Fruit Juice

- Whole fruit is more nutritious than fruit juice and provides dietary fiber
- Drinking fruit juice can contribute to weight gain, tooth decay, diarrhea, and poor nutrition
- Juice should be limited at all ages to 4-8 ounces per day
- Carbonated water is sugar-free, but acidic and can promote tooth decay



Image: Melinda Clark, MD

- Offer snacks only once between meals
 - If children snack more, brush more frequently
 - No food or drinks in bed except plain water
- Avoid treats in return for good behavior
 - Bribes teach children to view food as a reward



Image: Shutterstock.com

Making the Right Food Choices

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Lower Risk Snacks

- Fruit
- Veggies
- Cheese
- Popcorn
- Nuts
- Plain milk
- Water
- Sugar free gum



Images: Photos.com

High Risk Snacks

- Fruit Roll-ups
- Gummy bears
- Cookies
- Cupcakes
- Donuts
- Granola bars
- Pop tarts
- Sugared Cereals
- Soda, Iced tea
- Sugary drinks
- Raisins



Images: Photos.com

**Remember: frequency of ingestion is important
in whether foods cause tooth decay!**

Dental Home

- A dental home is the ongoing relationship between the dental provider and child for oral health care
- All children should establish a dental home by age 1



Image: Thinkstock.com

Special Care Needs Considerations

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- Defensiveness with hygiene & exams common
- May require more intense oral hygiene care
- Prepare for dental visits: child, parent, dentist
 - Often see a pediatric dentist
 - May need more frequent dental visits



Image: Shutterstock.com

Offer education to clients about:

- Pacifier and Thumb Sucking
- Teething
- Injury Prevention
- Oral Piercings and Grills
- Nutrition Advice for Children



[Advance to Final Slide](#)



Pacifier and Thumb Sucking



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Concern: If habit persists, may delay speech and affect the child's bite

Guidance

- Satisfies a psychological need in babies
- Stop habit by 3 years, especially if bite and teeth position affected
- Break the habit:
 - Limit opportunity (bed only)
 - Cover hands at night; Provide another comfort object
- Pacifiers preferable to finger or thumb sucking
- Never dip pacifier in honey or other sweet food



Image: Shutterstock.com



Concerns

- Teething does not cause fever, colds, ear infection, or diarrhea
- Teething may cause fussiness
- Drooling is common at this age

Guidance

- Apply cold teething ring or cloth to gums
- Provide over the counter pain medication if necessary
- Avoid teething gels (dangerous for infants)
- Tooth emergence may be preceded by a collection of blood in the tissues (above) - no treatment necessary

Erupting Tooth with Hematoma



Photo: ICOHP



Oral Injury

- Oral injuries are common in young children
 - > 30% of preschoolers have had a dental injury
- Causes of injury
 - Young children:
 - ✓ Falls off of furniture
 - ✓ Running and tripping
 - ✓ Injured with object
 - Older children:
 - ✓ Sports and outdoor activities (e.g. biking, skateboarding)



Image: Shutterstock.com

Injury Prevention



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- Top front teeth most frequently injured
 - Tooth may be chipped, moved forward or backward, pushed back into the gum, knocked out
- Injured primary teeth may:
 - ✓ Discolor (turn brown or black)
 - ✓ Cause pain
 - ✓ Become infected
 - ✓ Need to be removed
 - ✓ Affect underlying permanent tooth development



Image: Rocio Quiñonez, DMD



Procedure Risks

- Swelling - very common post-piercing
- Bleeding
- Infection

Jewelry-Related Complications

- Injury to the gums and teeth
- Problems with hygiene, speech, chewing and swallowing
- May be sensitive or allergic to metal
- Loose jewelry may be inhaled or swallowed



Photos by Rebecca Slayton DDS, PhD

Grill-related Risks

- Increase risk of cavities
- Allergic reactions to the metal

Counsel grill-wearers to:

- Brush and floss regularly
- Limit amount of time grill is worn
- Remove grill to eat and sleep



Photos by Scott Eidson DDS



Diet Advice: 0 – 12 Months

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- Strongly encourage breast feeding
- Hold infant for bottle feeding
- Introduce sippy cup at 6 months
- No bottles at bedtime or naptime
- Wean off bottle by 12 months
- Don't use sweetened pacifiers
- Avoid constant use of sippy cup unless only water
- No juice in the first year of life
- Snacks should contain no added sugar

Diet Advice: 1 – 5 Years



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- Limit juice to 4 oz per day and serve with meals
- Avoid carbonated beverages and sugary drinks
- Drink plain milk or water between meals
- Avoid carbonated water (Seltzer) as the acidity can promote tooth decay
- Choose fresh fruits, vegetables, and sugar free whole grain snacks
- Limit eating to 3 meals per day and 1 snack between meals
- Limit soda, candy, and sweets



Take Home Messages



Image: Melinda Clark, MD

True or False?

1. No need to start brushing a child's teeth until they have > 2 teeth.
2. Primary teeth are not very important because baby teeth will be replaced.
3. A child can and should brush their own teeth before age 5.
4. Children should first see a dentist when they start preschool.
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Case #1

You work for a community health center in a large urban area. A family you serve has recently emigrated from Saudi Arabia. 3-year-old Rayan's mother is concerned about cavities in his teeth. She reports that his grandmother has reassured her that having cavities at this age is normal and that he does not need treatment.

1. Are cavities normal in preschoolers?
2. What advice should be given about baby teeth? Do they matter? Why?
3. When is the proper age to establish a dental home?

Case #2

Your clients are the Ramos family: Leonel age 5 years and Mary age 4 years. The guardian raises concerns about Mary's teeth. This is the appearance of her teeth:



1. What do you notice about the teeth?
2. What advice would you give the parents about toothbrushing and fluoride?
3. What advice should be given about the child's diet/nutrition?

Questions?



Image: Jupiterimages/Photos.com