Oral Health in Early Childhood Programs

Implementing 606 CMR 7.11(11)(d)
Sponsored by:
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Educators must assist children in brushing their teeth when children:

- are in care for more than four hours, or
- consume a meal
Learning Objectives

By the end of this presentation you will:

- Recognize the oral disease called “Early Childhood Caries” and its impact on general health and well-being
- Learn about the how teeth develop decay
- Learn about how to prevent tooth decay
- Demonstrate how to implement classroom oral health curriculum
- How to implement tooth brushing in the classroom
What is Oral Health

- Focuses on the **Mouth** or oral cavity
  - Hard tissues
    - Teeth
    - Bone
  - Soft Tissues
    - Gums
    - Tongue
    - Cheeks
Good Oral Health for Good Overall Health!

- **Tooth decay** is the most common chronic infectious disease affecting young children in America today.

- **Periodontal disease**, an infection of the gums, has been linked to heart disease, diabetes, cancer, pre-term birth, and low birth weight babies.

- **164 million work hours** are lost because of oral health disease every year.

Oral Disease is PREVENTABLE.
Baby Teeth are Important

- Chewing & nutrition
- Development of the permanent (adult) teeth
- Facial structure
- Speech development
Tooth Anatomy

[Diagram of a tooth showing enamel, dentin, pulp, and bone]
How Teeth Develop Decay

BACTERIA break down FOOD into acids that eat away the TOOTH
Early Childhood Caries (ECC): Impact on Health and Well-being

- A severe **rapidly** developing form of tooth decay in infants and young children
- Affects teeth that erupt first, at about 6 **months**, and are least protected by saliva
- Formerly called:
  - Baby Bottle Tooth Decay
  - Nursing Caries
Severe ECC Leads to:

- Extreme pain
- Spread of infection
- Difficulty chewing, poor nutrition, below average weight
- Extensive and costly dental treatment
- Difficulty learning
- Speech development
- Permanent teeth problems

51 million school hours lost every year
Prevalence of Dental Decay

- Dental decay is the most common chronic disease of childhood
  - 6% of 1 year olds
  - 22% of 2 year olds
  - 35% of 3 year olds
  - 48% of 4 year olds
Early Childhood Caries usually affects:

- First the upper incisors
- Then 1st baby molars
- Then 2nd baby molars
Developmental Defects

- More tooth defects in
  - Premature infants
  - Lower income groups
  - Certain minority groups

CSHCN: Preventive dental services are #1 unmet need most reported by families
Risk Factors for Dental Decay

- Fluoride status
- Feeding / Snacking practices
- History of dental decay
- Racial / Ethnic minority
- Income / Education status
- Limited access to dental care
- Poor oral hygiene practices
- Special health care needs

Health Beliefs / Myths

- "Decay will happen anyway"
- "Baby teeth are not important"
- "It is cruel to deny children the bottle"
- "The bottle or snacks keep my baby quiet"

20% of children experience 80% of dental disease (cavities)
Massachusetts Data

Caries Experience – Kindergarten

Figure 14. Disparities in the Proportion of Massachusetts’ Kindergarten Children with Caries Experience

Source: Table 3

Catalyst Institute, The Oral Health of Massachusetts Children, 2008
Dental Decay is an Infectious, Transmissible Disease

- Bacteria transmitted from primary care-taker
- Care-takers with high levels of bacteria have:
  - High levels of decay
  - Poor oral hygiene
  - High frequency of sugar intake
• How *often* sugar is eaten is more important than how *much* sugar is eaten.

• Acids produced by bacteria after eating sugar can last for 20-40 minutes

"20-Minute Acid Attack" 
Acid + Tooth = Decay
You’d be surprised how much sugar is in some foods!

CHECK FOOD LABELS
Demonstration: Food Labels

Nutrition Facts
Chocolate Milk 16 oz.
Serving Size 8 oz.
Servings per Package 2

Amount Per Serving
Calories 180
Sugars 28 g = 7 tsp

Sugar per Package = 14 tsp.

4 grams sugar = 1 teaspoon

To calculate:
● Find # grams of sugar listed on label
● Divide by 4
● = # teaspoons of sugar per serving
Good Oral Health Practices

- Good oral hygiene
- Healthy food choices
- Early dental exams and treatment
- Fluoride
- Sealants
Infant Feeding

- Breast feeding will not prevent ECC
- Always hold the infant when bottle feeding
- No propping of bottle
- Only formula or breast milk in bottle
- From breast to cup
Toddler Feeding

- Ideally, sugar-free drinks
- Milk or water between meals
- No drinking *ad lib* from “sippy” cup
- Limit number of times for eating and drinking
- When possible replace juice with fresh fruit

Limit fruit juice to meal times – No more than 4 ounces a day
ORAL HYGIENE

- Start brushing when first tooth comes into the mouth
- Clean with soft nylon brush
- Adult supervision
- Nothing to eat or drink after brushing at night
- Nighttime is most important time to brush
Tooth Paste

- Just a smear for children under 2 years
- Pea size for children over 2
- Fluoride toothpaste is best
Lift the Lip

- Brush the gum line where plaque buildup begins
- Brush the insides of the teeth
Brushing & Flossing

- Always use a soft bristle brush
- Hold brush at 45 degree angle along gum line
- Use a circular or rolling motion to brush all tooth surfaces along the gum line
Prevention

- Fluoride
- Sealants
- Regular Dental Check-ups
  - First dental visit by first birthday
- Xylitol
THE ROLE OF SALIVA

- **Saliva** helps protect the teeth from dental decay

- Salivary flow is reduced during sleep, and that’s why we often wake up with a very dry mouth

- Medications can reduce saliva flow
Oral Health & Pregnancy

- Begins with pregnancy
  - **Hormonal changes** during pregnancy increase the risk for cavities and gum disease
  - **Calcium**
  - **Morning sickness**
  - **Periodontal disease link to pre-term birth and low birth weight babies**
- **Dental treatment**
Preventing Injuries and Emergencies

- **Mouth Guards** when participating in sports or recreational activities that may pose a risk

- **Avoid chewing** ice, popcorn kernels and hard candy, all of which can crack and or break teeth

- **Never remove** bottle caps with your teeth

- **Cut tape and paper** with scissors rather than your teeth
Risky Behaviors

- Smoking:
  - Periodontal disease risk
  - 6 times more likely to develop oral cancer than non-smokers
  - Snuff/ chewing tobacco cancer risk

- Alcohol use: combined with smoking is number one cause of oral cancer

- Methamphetamine/ “meth mouth”
  Meth, Speed, Ice, Chalk, Crank, Fire, Glass, and Crystal
Take Home Messages

- Teeth, including baby teeth, are important for good general health and proper development
- Dental decay in early childhood is a serious infectious disease
- Decay develops in the presence of teeth, bacteria and sugars
- First dental visit by first birthday
Brushing in Your Program

- There are many different ways of implementing classroom brushing.
- Licensees need to decide what works best for them.
- Brushing is required once-a-day only.
- **Any time** of the day is okay.
- Children can brush as a group or individually (as they wake up from naps for example).
One Classroom Model for Group Tooth Brushing
Brushing begins with first tooth
Matching

Shape Recognition
Toothpaste: One “smear” Per Child
Toddlers: Wet Brushing

- Place drying rack nearby,
- Put gloves on
- Child and teacher face mirror
- Teacher assists brushing, then allows child practice time.
Set Up
Swish & Swallow x 2

Before brushing begins, to loosen food particles & moisten mouth
Model Brushing
Brush Tongue

[Image: A woman and a child are both brushing their tongues with a tongue cleaner.]
Swish & swallow again, then Rinse the Brush
Tap Brush Dry on Cup & Towel
Place Napkin lightly into Cup
Teacher puts brush into rack
Table of 5 = 6 Minutes
Spills are Rare and Small
CDC “Okays Infection Control”
At the Sink:

- Sip water from cup
- Brush teeth w/ smear of T-Paste
- Spit
- Wash hands afterward
Thank you to the Magic Years Preschool at the Springfield YMCA for demonstrating the model!
Providers will get

- Stage 1 toothbrushes
  - Babies 4 month old to 2 years old
- Stage 2 toothbrushes
  - Kids 3 years old to 6 years old
- Adult toothbrushes to give to parents
- 1 Toothbrush holder for 10 toothbrushes (for providers that currently have 4 or more kids in their program)
- Letters for parents
- Oral health info for parents
“Oral Health in Early Childhood Programs”

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References

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- Smiles for Life: http://www.smilesforlife2.org/
- American Academy of Pediatrics Oral Health Risk Assessment: https://email.state.ma.us/exchweb/bin/auth/owalogon.asp?replaceCurrent=1&url=https%3a%2f%2femail.state.ma.us%2fexchangepage