

**Caring for Children’s Oral Health  
Training Module  
version 5  
(Last revised 2/12/13)**

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## **NOTE TO TRAINER**

This Training Module presents information on promoting the oral health of children in the child care setting. For learning activities as well as additional resources, trainers should access the *Healthy Smiles: Oral Health of Young Children Toolkit* that is available on the NTI website at [http://nti.unc.edu/healthy\\_smiles/resources\\_index.html](http://nti.unc.edu/healthy_smiles/resources_index.html). The Toolkit includes a Training Guide to leading training sessions, PowerPoint slides, and materials for participants' packets. Please note that unlike the other NTI Trainer's Toolkits, this training curriculum is intended to be used by child care health consultants (CCHCs) directly with child care caregivers/teachers and parents/guardians. For training CCHCs, please refer to the Healthy Smiles course, which is an online training course developed for CCHCs that may be viewed online at [http://nti.unc.edu/healthy\\_smiles/index.html](http://nti.unc.edu/healthy_smiles/index.html).

For more information about using the NTI materials, please read "Guidelines for Using the NTI Curriculum Materials," available in the "Curriculum" section of the NTI Resources Website (accessed by entering your NTI username and password at <http://sakai.unc.edu>).

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## **LEARNING OBJECTIVES**

After reading this Module, Trainers will be able to:

- Describe national trends in the incidence of children's oral health problems and needs
- Describe early childhood stages of tooth development
- Explain major oral health problems for young children
- Explain at least seven key prevention strategies for oral disease, infections, and injuries
- Assist child care staff in incorporating oral health care into the daily routine
- Know the best methods for storing children's toothbrushes
- Identify ways to respond to dental emergencies
- Describe factors to consider in meeting oral health needs of children with special needs
- List sources of payment for children's dental care
- Understand factors affecting access to dental care

## **INTRODUCTION**

Proper oral health in children is essential to meeting their general health needs, as the health of the mouth affects the overall health of the body. Early childhood caries is the most common infectious disease affecting young children in the United States, and the problem is especially of concern among children ages 2-5, who are experiencing an increase in childhood caries (Dye, et al., 2007). Increasing rates of caries infections are particularly disturbing, because with an ongoing systematic approach, many oral diseases can be prevented.

### **The Role of the CCHC**

Preventing oral disease is challenging and requires early supervision, continuous monitoring, and professional intervention when indicated. The CCHC has a key role to play in educating both child care staff and parents/guardians about oral disease prevention methods, and referrals to community health resources [1.6.0.1](#), [2.4.2.1](#). The CCHC should also help the child care staff incorporate good oral health practices into the children's daily routine and ensure that the child care program's policies reflect measures for promoting oral health through oral hygiene (tooth brushing), good nutrition, and injury prevention.

The CCHC should also maintain current information on insurance and payment structures for oral health care and the availability of community dentists and clinics willing to see young children. The CCHC should assist families in enrolling children in a dental home for continuous, comprehensive and contemporary care. In the event that these options are limited, the CCHC has a role to play in advocating for optimal oral health care and payment options for children.

### **National Trends in Children's Oral Health Status**

Current reports on the status of oral health for America's children include the following facts:

- Tooth decay is the most common chronic disease of childhood in the United States. , Data from the National Health and Nutrition Examination Survey (1999-02) indicated that 41% of children aged 2-11 had dental caries in primary teeth and 42% of those aged 6-19 had caries in their permanent teeth (Beltran-Aguilar, et al., 2005).
- High rates of tooth decay among children in the United States results in increased risks of caries in permanent teeth, hospitalizations and emergency room visits, increased expenditures on dental health care, insufficient physical development (from dehydration and under-nutrition associated with chronic mouth pain), loss of school days, diminished capacity to learn, and lowered self-confidence and self-image (AAPD, 2010c).
- Tooth decay is more than twice as common for children living in poverty, and is more prevalent among children in racial and ethnic minority populations, and among those with special health care needs (CDC, 2004; DHHS, 2000).
- Among poor, preschool-aged children, nearly 30% have untreated tooth decay, compared with 6% of children living at 300% of the federal poverty level and above (Gehshan and Wyatt, 2007).

## **CARING FOR OUR CHILDREN NATIONAL STANDARDS (3<sup>RD</sup> ED., 2011)**

*Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Early Care and Education Programs (CFOC)* is a set of 686 attainable standards that are intended for use by health care professionals, trainers, regulators, caregivers/teachers, academics and researchers, parents/guardians, and others “who work toward the goal of ensuring that all children from day one have the opportunity to grow and develop appropriately, to thrive in healthy and safe environments, and to develop healthy and safe behaviors that will last a lifetime” (*CFOC* 3<sup>rd</sup> ed., 2011, p. xxi). These standards, supported by the Maternal and Child Health Bureau, were developed by the American Academy of Pediatrics, the American Public Health Association, and the National Resource Center for Health and Safety in Child Care and Early Education.

The following is a list of the *CFOC* standards related to oral health in the child care setting. These standards are referenced throughout the Module.

### [1.4.3.2](#) Topics Covered in First Aid Training, p. 25

This standard addresses all first aid topics that should be covered in staff training, including dental and mouth injuries/trauma.

### [1.6.0.1](#) Child Care Health Consultants, p. 33

This states that every facility should identify and engage/partner with a child care health consultant (CCHC).

### [2.4.2.1](#), [2.4.3.1](#)-[2.4.3.2](#) Health and Safety Education Topics for Staff and Parent/Guardian Education Plan, p. 83-85

These standards address the need and recommended techniques for education of child care staff and parents/guardians about health and safety topics, including oral health.

### [3.1.4.1](#) Safe Sleep Practices and SIDS/Suffocation Risk Reduction, p. 96

This standard states that all facilities should develop a written policy that describes practices to be used to promote safe sleep when infants are napping or sleeping. Information on pacifier use is included here and in standard 3.1.4.3.

### [3.1.5.1](#), [3.1.5.3](#) Routine Oral Hygiene Activities and Oral Health Education, p. 101-104

These standards address the oral hygiene and education activities that should occur in the child care setting.

### [3.1.5.2](#) Toothbrushes and Toothpaste, p. 102

This standard explains proper use and storage of toothbrushes and toothpaste in child care settings.

### [4.2.0.1](#), [4.2.0.3](#)-[4.2.0.8](#) Nutrition Planning, p. 152-159

These standards address topics and considerations for nutritional planning in the child care setting.

[4.3.1.8](#) Techniques for Bottle Feeding, p. 170

This standard addresses how infants and young children should be bottle-fed in the child care setting, and stresses that parents/guardians and caregivers should be aware of the connection between inappropriate feeding and health issues such as dental caries.

[5.5.0.1](#) Storage and Labeling of Personal Articles, p. 256

This standard recommends? suggests that toothbrushes be stored in separate, clean containers and labeled with the child's full name.

[9.2.3.14](#) Oral Health Policy, p. 362

This standard provides a list of topics that should be included in a program's oral health policy.

## **WHAT THE CCHC SHOULD KNOW: CHILDREN'S ORAL HEALTH CONCERNS**

### **Developmental Stages of Children's Oral Health**

The formation of a child's teeth begins in utero. For this and other fetal health reasons, expectant mothers should receive comprehensive prenatal care, eat balanced meals, and avoid using tobacco products and alcohol during pregnancy. A growing body of research shows that periodontal disease in expectant mothers may contribute to adverse pregnancy outcomes, such as preterm birth, low birth weight babies, and preeclampsia (AAPD, 2010a). In addition, mothers with poor oral health are at risk of infecting their young children with the bacteria that causes caries, increasing the child's risk for tooth decay at an early age (AAPD, 2010a). Pregnant women should continue to visit their dentist during pregnancy to ensure optimal oral health for themselves and their children.

The eruption of children's primary (baby) teeth begins between 5 and 7 months of age, although it may occur later or earlier in some children. The first primary teeth that appear are the upper and lower front teeth, called the incisors. By 2 or 3 years of age, a child will have all 20 primary teeth (Wisconsin Department of Health & Family Services, Division of Health, 1996).

Children begin the process of teething before teeth actually appear. The child's gums may become red, swollen, and tender preceding the eruption of teeth. Children also become restless and fussy, have excess saliva, and want to bite and chew because the teething process can be uncomfortable. To ease some of these symptoms, a child may be given a one-piece teething ring. It can be especially soothing if the ring is kept cold (but never frozen) before giving it to a child. In general, many children will exhibit a temporary and small increase in temperature. If fever continues, parents/guardians should contact the child's physician.

A child's primary teeth are very important and should be cared for to allow for the proper eruption of permanent teeth. Primary teeth enable a child to eat and speak as well as retain space for the permanent teeth. Permanent teeth begin to erupt at 5 or 6 years of age, but the last primary molar is not shed until 11-13 years of age.

### **Major Oral Health Problems for Children**

#### ***Dental Caries***

Dental caries (i.e. tooth decay, or cavities) is an infectious, transmissible disease whereby bacteria in dental plaque metabolize sugars and other fermentable carbohydrates from the diet. The acid that is produced as a metabolic by-product dissolves the hard surfaces of the teeth. This disease may cause the loss of minerals from the teeth, known as demineralization. This occurs when exposure to the acid is prolonged and exceeds the natural ability of the teeth to remineralize or heal. The bacteria then can penetrate the surface of the teeth and attack the dentin and soft pulp tissue, leading to cavities (CDC, 2001).

The younger the age of the child at the first onset of caries, the greater the likelihood of caries at later ages (O'Sullivan and Tinanoff, 1993; US DHHS, 2000).

### ***Early Childhood Caries (ECC)***

Early Childhood Caries (ECC), also known as Baby Bottle Tooth Decay, refers to early and severe tooth decay in infants and pre-school age children. A common cause of ECC is giving a child a bottle containing milk, formula, juice, soda pop, or any drink with sugar for extended periods of time to encourage sleep, comfort, and/or to calm the child. <sup>4.3.1.8</sup>For example, children may be given a bottle when put to bed, or be allowed to carry a bottle around with them during awake hours. The sugary drink pools in the child's mouth and becomes a breeding ground for bacteria that may result in cavities. If a child has ECC, his/her teeth may appear chalky white, brown or have yellow spots or cavities, and some teeth may be partially broken. Estimates indicate that 24-28 percent of all children experience ECC, and children in poverty are most affected (Dye et al., 2007).

### ***Periodontal Disease***

Periodontal disease includes both gingivitis and periodontitis. Gingivitis is a disease of the gums that may occur among children. The first signs of gingivitis are red, swollen gums and bleeding while brushing. Often, however, there are no physical symptoms of gingivitis, and regular dental visits can be the only way to detect gingivitis in its early stages (ADA, 2004). Periodontitis, the disease of the gums and supporting bone, is rare in healthy children. If a child has periodontitis, it may be an indication of an underlying condition and the child should be referred to a physician for evaluation. Both gingivitis and periodontitis can be prevented and controlled by using plaque-removing techniques such as brushing and flossing (Casamassimo and Holt, 2004). Flossing is generally not indicated until a child's teeth begin to touch one another. Until that time, monitored and thorough brushing is sufficient.

### ***Malocclusions***

Malocclusion refers to the improper alignment of the jaws and teeth (AAPD, 2010g). Malocclusions can be either skeletal, when the upper and lower jaw do not align in relation to the skull, or dental, when the teeth in either jaw do not align properly. Many malocclusions are genetically determined. However, a common preventable form of malocclusion occurs as a result of non-nutritive sucking habits (e.g., sucking fingers, thumb, or pacifier). For this reason, sucking habits should be discouraged around age four, before permanent teeth erupt (NMCOHRC, 2003b). Another common form of malocclusion occurs when a primary tooth is lost prematurely and a nearby permanent tooth shifts into the space leaving inadequate room for the permanent replacement tooth (NMCOHRC, 2003b). Many malocclusions are primarily aesthetic concerns, but they can also interfere with oral functions, contribute to poor oral health, and should be evaluated when appropriate.

### **Action Items for the CCHC**

The CCHC should:

- Educate child care staff and parents/guardians about the developmental stages of children's oral health, including the importance of good prenatal care and the role that primary teeth play in a child's ability to eat, speak, and grow.
  
- Educate child care staff and parents/guardians about the causes and signs of major oral health concerns for children.

## **WHAT THE CCHC SHOULD KNOW: KEY PREVENTION STRATEGIES**

A child's resistance to dental caries and the level of the caries attack can be managed by good oral hygiene, use of fluorides and sealants, good dietary habits, and physical or chemical reduction of dental plaque (Casamassimo and Holt, 2004).

### **Cleaning Teeth and Gums**

Cleanliness is the single most important preventive goal that child care staff can easily implement to reduce dental caries and gingivitis. It is important for CCHCs to ensure that both caregivers/teachers and parents/guardians understand how to correctly clean the teeth and gums of their children. The cleaning of a child's teeth or gums should begin as soon as teeth begin to erupt or earlier (AAPD, 2010b). The caregiver should clean an infant's gums using a damp cloth or piece of gauze moistened with water, as a way to prepare infants for brushing once teeth erupt. Prior to age two, parents/guardians should brush the infants/toddlers teeth. After age two, caregivers should begin assisting children in brushing their teeth. At about age three, children should begin to learn how to brush their own teeth with direct supervision of the caregiver (Casamassimo and Holt, 2004). By age 4, children should brush their own teeth. However, the caregiver will still need to ensure that the teeth are thoroughly cleaned, probably through age 6. If children are unable to follow this developmental schedule, the caregiver should brush their teeth for them. The caregiver should be knowledgeable about the correct brushing method. If children do their own brushing, the caregiver should demonstrate step by step.

A child should use a soft-bristled toothbrush with a head small enough to fits his/her mouth. The recommendation of the American Academy of Pediatric Dentistry (AAPD) is that all children should use a smear of toothpaste containing fluoride at least twice daily (AAPD, 2010c). The AAPD also recommends that the caregiver supervise brushing to ensure young children, especially those pre-school age or younger, do not swallow the toothpaste. The toothpaste should have the American Dental Association Seal of Acceptance, shown below.



(ADA, 1995-2004)

Since they snack frequently, it is usually not feasible for children to brush their teeth after every snack. At times when brushing after eating is impractical, drinking water should be offered instead and children should be encouraged to swish the water in order to wash away food particles and sugars. According to CFOC (2011), “a sink is not necessary to accomplish tooth brushing in child care. Each child can use a cup of water for tooth brushing. The child should wet the brush in the cup, brush and then spit excess toothpaste into the cup (pg. 102).” [3.1.5.1](#)

### ***Preventing Early Childhood Caries (ECC)***

- Avoid introducing bottles at bedtime and naptime. If a child is accustomed to sleeping with a bottle, fill the bottle with water, and hold the child until they fall asleep.
- While human milk does not contribute to caries, it can serve to trap other foods. On-demand breastfeeding at night should be reduced once teeth erupt.
- Explore alternative methods for calming a child and getting him/her to sleep, such as reading a book or listening to music.
- Clean the child's teeth and gums each day with a toothbrush that has a small head and soft bristles.
- Offer the child drinks with a cup as soon as he/she can sit up alone.
- Eliminate use of bottles after one year of age.
- Avoid unlimited or frequent access to milk or sugary drinks (from either a bottle or cup) throughout the day. After the eruption of the first tooth, children should be given small amounts (no more than 4-6 ounces per day) of fruit juice at mealtimes only. (AAP, 2003, AAPD 2010b and 2010d)
- Avoid coating pacifiers with a sweet solution. [3.1.4.1](#)

### **Good Nutrition**

The best nutrition for children's oral health is the same as that for their general health: a healthy balanced diet consisting of a variety of foods. See <http://www.choosemyplate.gov/> for tips on a daily balanced diet for pre-school aged children. (Also see the section on Meeting Children's Nutritional Needs in NTI's *Nutrition and Physical Activity Training Module*).

### ***Foods to Avoid***

From a dental point of view, the most harmful foods are those containing sugars, e.g., sucrose, fructose, glucose, lactose, dextrose and maltose. All sugars promote tooth decay, even the sugars and starches in foods that are essential to a healthy diet. Fruits, some vegetables, and most milk products contain at least one type of sugar. Also, many processed foods that do not appear sweet, such as peanut butter and ketchup, list sugar as a major ingredient on their labels. Not only do sugary foods have cavity causing potential, but the longer sugars remain in contact with the teeth and gums, the greater the risk for decay. This is particularly a problem with infants who are given a bottle of milk, juice, or sweetened liquid as a pacifier or comforter at bedtime or allowed frequent access to milk or sweetened liquids throughout the day. See "Preventing Early Childhood Caries (ECC)" in the previous section for strategies to eliminate bottles.

Since many foods containing sugars also provide nutrients that a child needs, the AAPD (2010f) stresses that they not be eliminated, but selected and served wisely. Some specific recommendations are as follows:

- Avoid sweets, including sweetened soft drinks and other sugary liquids. When sweets are eaten it's preferable that they be included with a meal rather than eaten as a snack. At meals the combination of foods eaten helps to dilute the sugar concentration and wash the sugars away. Also, children are more likely to brush their teeth after a meal than after a snack.

- At snack time, limit sticky, starchy foods (raisins, crackers, bananas) that cling to teeth for relatively long periods of time and are not easily washed away.
- After snacking, if brushing is not feasible, rinse the mouth with water.
- Avoid snacking before bedtime or naptime since the potential for foods to adhere to the teeth surfaces for a longer period of time increases and salivary flow decreases.
- Limit the frequency of snacks. Although children need snacks, every time they eat they are exposing their teeth to potential decay.

### **Regular Dental Visits**

The AAP (2003) suggests that every child should receive an oral health risk assessment by 6 months of age by a pediatrician or a pediatric health care professional who has had training in assessing a child's oral health status. This assessment can help direct children at risk of dental caries to appropriate dental care. Regular dental visits ensure the practice of good preventive methods such as checking for the proper amount of fluoride treatment, teaching proper brushing techniques, and checking for oral health problems and early signs of tooth decay.<sup>3.1.5.3</sup> The AAPD (2010h), and the AAP (2003) recommend that children have their first dental appointment and establish a dental home within 6 months after the eruption of the first tooth and no later than 12 months of age. The establishment of a dental home provides the child with comprehensive, accessible, and affordable dental health care (AAP, 2003). The frequency of subsequent dental check-ups for children are based on a caries risk assessment and may vary with each child.

### **Use of Fluoride**

The widespread use of the mineral fluoride in the United States is the primary factor in preventing dental caries among both children and adults.<sup>3.1.5.1</sup> The effects of fluoride include:

- Increased resistance of the tooth structure to demineralization
- Improved remineralization of early carious lesions
- Reduction in the development of dental cavities

A child can receive fluoride in two ways, systemically and/or topically. Systemically, fluoride is ingested into the metabolic system through fluoridated drinking water or through fluoride supplements (tablets or drops). Topical fluorides, which reach the teeth directly, include fluoridated water (washing over the tooth surface), fluoride toothpastes, fluoride mouthwashes, and fluoride treatments applied by a dental professional.

Two of the most common sources of fluoride are tap water and fluoridated toothpaste. Fluoride occurs naturally in some water, but in most major municipalities it is added to the water as a public health measure to help prevent tooth decay. However, not all communities are optimally fluoridated. When adequately fluoridated drinking water is *not* available, health professionals prescribe fluoride supplements (fluoride vitamins, drops, or tablets) for children and adolescents. In cases where the CCHC is uncertain as to whether or not a water system is adequately fluoridated, she/he should contact the local and state health departments and request information or testing. Before fluoride supplements are given to children, it is important to review all dietary sources of fluoride, including home and child care tap water, bottled water, formula and other prepared food, and toothpaste (AAPD, 2010e). With the increased use of home water filters and

bottled water among families, many children may no longer be receiving the appropriate amount of daily fluoride.

The fluoride supplements provided by health professionals are sold in many forms. For example, fluoride drops are available for young children 6 months of age and older; while older children and adolescents may be given chewable tablets with or without vitamins. There are limits, however, to the amount of fluoride a child should be given. Too much fluoride during the period of active enamel calcification can cause enamel fluorosis on erupted permanent teeth. Most cases of enamel fluorosis result from children swallowing fluoride toothpastes and taking fluoride supplements when their drinking water is already optimally fluoridated. For example, a dentist may automatically prescribe fluoride supplements for a child who relies predominantly on well water, assuming the water is under-fluoridated. However, some well water is naturally fluoridated. In general, testing of children's primary source of drinking water should occur prior to supplementation (AAPD, 2010e). Information about natural water fluoride levels can often be found at County Health Departments.

### ***Fluoride Varnish***

Fluoride varnish is a high concentration topical fluoride varnish that is painted directly onto the teeth. It adheres and is absorbed over a 24-hour period, then wears away. It has been used effectively to prevent tooth decay in primary and permanent teeth for many years with no reported adverse effects (Barzel et al., 2010). Fluoride varnish can lead to significant cost savings in restorative dental care and associated costs. [3.1.5.1](#) The decision to apply fluoride varnish should be based on a professional caries risk assessment, and if indicated, application is recommended every 3-6 months (Barzel et al., 2010). This method of fluoride application is ideal for young children because no special equipment is needed, the application is relatively quick and easy, it requires little training or supervision for the physician or dentist, and the taste is not unpleasant. Fluoride varnish can be applied by a properly trained health care professional with a brush or cotton applicator. Another significant advantage of fluoride varnishes for infants and young children is that their potential for fluoride ingestion is relatively low compared to other topical fluoride treatments (Barzel et al., 2010).

### **Use of Sealants**

Caregivers/teachers should be encouraged to provide parents/guardians with information and education on preventive and early intervention dental services including dental sealants. [3.1.5.3](#) Dental sealants are thin plastic coatings applied to the chewing surfaces of the molars (back teeth) by a dental professional. Approximately 90% of tooth decay in children's permanent teeth occurs on these surfaces (NMCOHRC, 2003). Sealants help prevent tooth decay by creating a physical barrier protecting the grooves and pits of the molars where food and plaque stick. Dental sealants are usually applied to children's permanent molars, the first of which erupt around 6 years of age. Second molars appear around age 12. Occasionally sealants are applied to primary teeth if the child is considered at high risk for dental caries. [3.1.5.3](#) When properly applied dental sealants can last for a long time but should be checked regularly after application.

### **Injury Prevention**

Common oral injuries include crown fractures and tooth loss from sockets, as well as fractures of the jaw and alveolar (the ridge like border of the upper and lower jaws containing the sockets of

the teeth). The types of injuries that commonly occur depend upon the developmental stage and age of the child. Young children are most likely to suffer injury from falls, which can result in damage to the incisors or front teeth.

***Preventing Tooth Damage From Falls in Young Children***

- Maintain appropriate staff-to-child ratios to ensure adequate supervision.
- Remove low furniture with sharp edges (e.g., coffee tables) or install bumper guards around them.
- Place infants and toddlers in properly installed safety seats when in a motor vehicle.
- Place baby gates at both the top and the bottom of stairs.
- Ensure that children on bikes wear helmets and safety pads.
- Put safety mechanisms on windows and cabinet doors.
- Place a safety belt on children sitting in high chairs or riding in shopping carts.
- Make sure children wear mouth guards when playing sports.

**Action Items for the CCHC**

The CCHC should:

- Assist the child care staff in writing an oral health policy that includes daily toothbrushing and techniques for preventing ECC.
- Ensure that nutrition policies include language about promoting good nutrition for oral health and limiting sticky, sugary snacks.
- Educate caregivers/teachers and parents/guardians about the benefits of early and continuous dental visits, as well as the use of fluoride and sealants.
- Remind parents/guardians to discuss their child's fluoride needs with their dentist to assure optimal protection.
- Assist the child care staff with implementing safety mechanisms to prevent tooth damage from falls.

## **WHAT THE CCHC SHOULD KNOW: TECHNIQUES FOR PROMOTING ORAL HEALTH IN CHILD CARE**

### **Incorporating Oral Hygiene Into the Child Care Routine**

Brushing can take place in the child care classroom setting, with children seated on the floor or at tables. The optimal brushing technique recommended by the AAPD (2010) does not require rinsing the mouth after brushing as this may wash away fluoride; therefore, it is not necessary for children to brush near a sink. A small amount of toothpaste should be distributed to each child on wax paper or in paper cups to prevent cross-contamination (University of Iowa, 2004). Brushing in a large group provides an opportunity for children to model behavior of teachers and other children, and provides the staff the best opportunity to supervise the children. Children three years of age and above should brush their own teeth in a classroom setting. However, additional brushings should take place daily at home with adult assistance.

#### ***Basic Brushing Technique***

- Place the head of the toothbrush beside the teeth at a 45-degree angle toward the gumline.
- Brush the front (cheek side) of each tooth, top and bottom, using gentle circular scrubbing motions.
- Brush the backs (tongue side) the same way, top and bottom.
- Scrubbing back and forth, gently brush the chewing surfaces of the teeth.
- Hold the toothbrush up and down to brush the insides of the front teeth. Use the front tip of the brush and move it up and down.
- Finally, brush the tongue by rolling the toothbrush back to front, or by gently scrubbing back and forth. This may tickle the child at first, but with practice it will become easy.
- No need to rinse after brushing.

(Lucille Packard Foundation for Children's Health, 2010)

### **Storing and Labeling Children's Toothbrushes**

A habit essential to promoting oral health and preventing oral disease in child care is the proper storage and labeling of children's toothbrushes. Toothbrushes can become contaminated with blood and saliva, both of which can carry disease. [3.1.5.2](#) Common sense as well as good hygiene practices should be used in caring for and using toothbrushes. The following recommendations (AAP, APHA, NRC, 2011; CDC, 2005) apply to the use and care of toothbrushes in child care facilities: [3.1.5.2](#)

- Each toothbrush should be clearly marked with a child's full name. [5.5.0.1](#) Sharing toothbrushes should not be permitted.
- Toothbrushes should be allowed to air-dry and stored so they are not in contact with one another. Store tooth brushes with bristles up to prevent bacteria from running back onto the bristles.
- If a toothbrush should become contaminated through contact with another brush or child, it should be discarded and replaced with a new one.
- Brushes should be replaced at least every three to four months unless bristles splay or become contaminated.

- Tooth brushing should be supervised by an adult to ensure that toothbrushes are handled properly.

### **Responding to Dental Emergencies**

Injuries to the head, face, and mouth are common among infants and young children. Some dental injuries require immediate attention. These include dislodged teeth, chipped or loosened teeth, teeth pushed through gums, toothache, tissue injuries, and a broken or dislocated jaw. In the event of a dislodged tooth, no attempt should be made to reinsert a primary tooth, since this may cause damage to the permanent tooth. Permanent teeth, however, should be reinserted into their sockets within 20-30 minutes for optimal results (NMCOHRC, 2003b). The tooth that was dislodged should be kept moist in cold milk and transported with the child to the dentist. In the case of chipped teeth, teeth pushed through gums, or toothache, the child should be seen by a dentist for evaluation and treatment. When injuries occur such as soft tissue tears, tongue lacerations, and puncture wounds, the immediate stoppage of bleeding is essential to prevent infection and promote healing. In the case of a broken or dislocated jaw, the child should be taken to the emergency room immediately.

### **Caring for the Oral Health of Children with Special Needs**

Incidence of untreated oral disease is almost twice as high in children with special needs than in their peers without special needs (NMCOHRC, 2006). Possible reasons are that oral health may have a lower priority in families where the child has other health needs, and some dentists are less willing to see children with special needs. Moreover, some children with special needs may require medication, diets, or treatments detrimental to oral health. Others may have mental or physical abilities that complicate oral care. Factors to consider in meeting the oral health needs of children with special needs are:

- Physical limitations
- Medications
- Communication limitations
- Psychological obstacles
- Decreased saliva
- Inability to clean teeth
- Variations in teeth and jaw structures
- Difficulty in chewing or swallowing

Generally speaking, however, the oral health of children with special needs benefits from the same preventive approaches recommended for all children; namely, early initial appointment, effective brushing and flossing, moderate snacking, optimal fluoride, regular professional cleanings, fluoride treatments, and sealants (National Maternal and Child Oral Health Resource Center, 2006). Whenever possible, it is best for children with special needs to be referred to a pediatric dentist. The education of these specialists includes care for children with special needs, and pediatric dental offices are designed to be ADA compliant.

### **Action Items for the CCHC**

The CCHC should:

- Educate caregivers/teachers and parents/guardians about how to respond to oral health emergencies.
- Assist the child care staff in setting up a daily toothbrushing routine in the classroom.
- Ensure that toothbrushes are properly labeled and stored.
- Assist caregivers/teachers and parents/guardians with accessing information about oral health for children with special needs.
- Take steps in the local community to educate dental professionals about removing physical barriers and adding needed special accommodations for children with special needs.

## **WHAT THE CCHC SHOULD KNOW: CHILDREN'S ACCESS TO DENTAL CARE**

### **Factors Affecting Access to Dental Care**

For every child in the United States without health insurance, there are 2.6 children without dental insurance, for a total of 12 million children without dental insurance coverage (Children's Defense Fund (CDF), 2010). Children without insurance are 2.5 times less likely to have dental care, and three times as likely to have unmet dental care needs than children with public or private insurance (CDF, 2010). The major barrier families with low income face in obtaining needed oral treatment for their children is lack of financial resources, and children from families with low income are nearly twice as likely to experience tooth decay than children from families with higher incomes (CDF, 2010). Other reasons children may not receive dental care include low numbers of dentists accepting Medicaid patients, lack of experience among general dentists in treating children, lack of pediatric dentists, long waiting periods for appointments, extensive travel time to appointments in rural areas, and families' lack of awareness about dental care needs (C.S Mott Children's Hospital National Poll on Children's Health, 2009; Jones, Tinanoff, Edelstein, Schneider, DeBerry-Summer, Kanda et al, 2000).

### ***Sources of Payment for Children's Dental Care***

A 2008 national health survey found that 56 percent of children ages 3-17 had private dental insurance (C.S. Mott Children's Hospital National Poll on Children's Health, 2009). The same survey reported public dental insurance for 28 percent of children, and no dental insurance for 16 percent of children.

Many families cannot afford private dental insurance, and their medical insurance does not cover preventive dental care. Even families with dental insurance report cost of co-pays and uncovered services as a barrier to receiving regular dental care for their children. Fourteen percent of families with public insurance report problems finding a dentist who will accept their insurance (C.S. Mott Children's Hospital National Poll on Children's Health, 2009).

Local and state health departments should be able to provide information on the following sources of payments for children's dental care:

**Medicaid:** By federal mandate, all children under 21 who are enrolled in Medicaid are eligible for routine dental services. However, the extent of services offered may vary from state to state.

**State Children's Health Insurance Programs (SCHIP):** Most states include dental services in their SCHIP programs. Information on the dental program is online at: <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Childrens-Health-Insurance-Program-CHIP/CHIP-Benefits.html>.

**Community Sponsored Programs:** Some clinics, dental societies, nonprofit organizations, churches, dental schools, and private practitioners provide free or lower cost dental services to families in need.

### **Action Items for the CCHC**

The CCHC should:

- Ensure that caregivers/teachers and parents/guardians work with the child's health care provider or dentist to set up a proper oral health exam schedule.
- Assist children and families of at-risk populations to receive needed oral health services.
- Ensure that child care staff has emergency contact information about each child's dentist, health care provider, parent/guardian, and medical/dental insurance.
- Check for dentists in the community who might be willing to be on call should a dental emergency occur.
- Identify a dental health professional to whom she/he may refer oral health questions and concerns that arise in the child care setting.
- Conduct community-based research to identify low-cost dental care for children.

## **WHERE TO FIND MORE INFORMATION**

For a detailed list of oral health resources, training materials, and educational materials for adults and children, please see the Healthy Smiles Through Child Care Health Consultation Resource Lists, available at [http://nti.unc.edu/healthy\\_smiles/resource\\_list.html](http://nti.unc.edu/healthy_smiles/resource_list.html).

American Academy of Pediatrics.

Oral health links

<http://www.aap.org/oralhealth/>

American Academy of Pediatric Dentistry

<http://www.aapd.org/>

Bright Futures Project, Georgetown University

<http://www.brightfutures.org/>

Centers for Disease Control and Prevention

Oral Health Resources, Children's Oral Health

<http://www.cdc.gov/OralHealth/topics/child.htm>

Centers for Disease Control and Prevention

My Water's Fluoride

<http://apps.nccd.cdc.gov/MWF/Index.asp>

Children's Dental Health Project

<http://www.cdhp.org/>

Colgate Bright Smiles, Bright Futures

A Global Oral Health Initiative

<http://www.colgatebsbf.com/>

Early Childhood Learning and Knowledge Center, Office of Head Start

Oral Health

<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/Health/Oral%20Health>

Indian Health Service Head Start Oral Health Toolkit

<http://www.ihs.gov/headstart/documents/OralHealthToolkit.pdf>

National Institute of Dental and Craniofacial Research

<http://www.nidcr.nih.gov/>

National Maternal and Child Oral Health Resource Center

<http://www.mchoralhealth.org/>

Oral Health During Pregnancy Guidelines

<http://www.cdafoundation.org/guidelines>

The Pew Center on the States  
The Cost of Delay: State Dental Policies Fail One in Five Children  
[http://www.pewtrusts.org/uploadedFiles/Cost\\_of\\_Delay\\_web.pdf](http://www.pewtrusts.org/uploadedFiles/Cost_of_Delay_web.pdf)

Protecting All Children's Teeth (PACT): A Pediatric Oral Health Training Program  
<http://www.aap.org/oralhealth/pact/index.cfm>

U.S. Department of Health and Human Services  
Health Resources and Services Administration (HRSA)  
HRSA Information Center  
<http://www.ask.hrsa.gov>

*At homepage, select: "Oral Health" in second column*

U.S. Department of Health and Human Services; U.S. Department of Agriculture. Nutrition and your health: Dietary guidelines for Americans. 5th ed. Home and Health Bulletin, 2000.:  
<http://www.health.gov/dietaryguidelines/dga2000/document/frontcover.htm>

U.S. Environmental Protection Agency  
Local drinking water information.  
<http://www.epa.gov/safewater/dwinfo.htm>

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