THE UNIVERSITY OF IOWA

Recommendations for Oral Health

Toothbrushing protocol for preschool and child care settings serving children 3-5 years of age

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Daily toothbrushing with fluoridated toothpaste, followed by minimal or no rinsing, should be incorporated into Head Start programs and other programs service high risk 3-5 year olds

Introduction

It is widely accepted that toothbrushing plays an important role in the prevention of tooth decay, a significant goal to ensure the overall quality of health for all children. For this reason, toothbrushing has become an important daily activity in many preschool and childcare settings. In an article developed for the Head Start Bureau on caries risk assessment and prevention, it was recommended that daily brushing with fluoridated toothpaste, followed by minimal or no rinsing, should be incorporated into Head Start programs and other programs serving high risk 3-5 year olds.[1] The purpose of this guide is to provide further information, practical details and evidence-based rationale that will guide individuals and programs as they develop protocols for their centers that are both practical and effective.

When to schedule brushing

Brushing should take place daily, fitting into the schedule when it is most convenient for the classroom schedule. It is best for children not to eat or drink anything for 30 minutes following brushing in order to get the most benefit from the fluoridate toothpaste. Brushing after meals or a snack may provide the most ideal time.

Frequency of brushing

Studies have shown that brushing once a day in preschool settings, using a fluoride toothpaste will prevent cavities.[2,3] Families should be encouraged to brush additional times at home. Brushing before bedtime is especially important, in order to prevent plaque and food particles remaining in contact with the teeth throughout the night.

Where to brush

Brushing can take place in the regular childcare or classroom setting, with children seated on the floor or at tables. Because the recommended technique doesn't require rinsing, it is not necessary for children to have access to a sink (see "eliminate or minimize rinsing following brushing" below). Brushing in a large group provides the best opportunity for children to model behavior of teachers and other children, and provides the teaching staff the best opportunity to supervise the children.

Supervision

Toothbrushing should be supervised by adults. With children ages 3-5, toothbrushing can best be accomplished as a group activity, with adults supervising, coaching and modeling appropriate technique. While the current protocol recommends that children brush their own teeth in a classroom setting, it is important to realize that most preschool-aged children do not have the manual dexterity to effectively clean their own teeth. For this reason, it is recommended that additional brushings take place daily at home, and that an adult do the brushing for the child at least one time daily.

Selection of toothbrushes

Toothbrushes with soft, rounded, polished nylon bristles are recommended. Several toothbrush manufacturers make toothbrushes with smaller heads and handles specifically for pre-school children. When selecting toothbrushes, it is important to keep in mind how they will be stored, since some handles can make storage more difficult.

Toothbrushes should be clearly labeled with the child's name.

Labeling of toothbrushes

Toothbrushes should be clearly labeled with the child's name. A permanent marker can be used for this.

Hygiene and Toothbrush Storage

Following each use, toothbrushes should be rinsed in tap water, stored in an upright position and allowed to air dry. Toothbrushes should be spaced so they do not touch one another. Do not let them drip on one another. Do not cover toothbrushes with anything that could prevent them from drying between uses.

Following each use, toothbrushes should be rinsed in tap water, stored in an upright position and allowed to air dry.

Storage racks for toothbrush storage are available commercially,[4] or alternatively, Styrofoam or cardboard egg cartons can be used (purchase new unused cartons to avoid possibility of salmonella contamination from eggs).[5] Egg cartons should be closed and placed flat-side down. Children's names should be written on the individual egg-shaped protuberances, and holes should be poked in the protuberances to accommodate the toothbrush handles.
If a toothbrush has been contaminated, or has been used by another child, it should be discarded.

Replacing toothbrushes

Toothbrushes should be replaced every 3 to 4 months, or sooner if the bristles become splayed or worn. Additionally, if a child is absent from the classroom due to illness, the old toothbrush should be discarded and a new one issued upon return to the classroom.

Importance of using fluoridated toothpaste

Fluoridated toothpaste should be used when brushing.

To prevent dental decay, fluoridated toothpaste should be used when brushing. There is very little evidence to suggest that brushing without toothpaste will prevent cavities.[6]. However, brushing with fluoridated toothpaste has been shown to be very effective in preventing cavities.[7]

Selection of toothpaste

Any "ADA approved" toothpaste containing fluoride is fine. The concentration of fluoride in these toothpastes is generally 1000 ppm. Some children prefer certain flavors over others, and it is fine to use "child-friendly" flavors as long as they contain fluoride.

Amount of toothpaste that should be used

Use no more than a small pea-sized amount of toothpaste.

You should use no more than a small pea-sized amount for each child. If children ingest too much fluoride over a period of time, there is a risk they will develop fluorosis, which may cause esthetically objectionable discoloration of the permanent teeth. This is the reason that only a small amount of toothpaste should be used, and adults should always dispense it.[8,9]

Dispensing the toothpaste

To avoid cross contamination, the toothpaste should not be applied directly to the toothbrush.

To avoid cross contamination, the toothpaste should not be applied directly to the toothbrush. Several acceptable options include: 1) Small squares of wax paper can be cut, and small pea-sized amounts of toothpaste can be expressed onto the wax paper pieces. These can then be distributed, and children can "scoop" up the toothpaste from the wax paper using their toothbrush; or 2) Small paper cups can be used for each child. A small amount of toothpaste can be dispensed inside the lip of the cup. Children can then "scoop" up the toothpaste from inside the cup using their toothbrush.

Toothbrushing technique

Children should use a "horizontal scrub" technique.

Children should use a "horizontal scrub" technique.[10] With this technique, the brush is placed horizontally on the tooth along the gum line and moved back and forth with a scrubbing motion. Children should be encouraged by a supervising adult to brush all three sides of their teeth - the outsides, insides and chewing surfaces. A systematic approach should be followed to help ensure that all areas of the mouth are cleaned. It may work best to have adults circulating through the room during brushing time, coaching the kids and brushing their own teeth so the children can model their behavior. Using child-friendly language like "upstairs" for the top teeth and "downstairs" for the bottom teeth may be appropriate. It is also important to brush the tongue. It is not clear how long children should brush, but it has been established that a longer duration of brushing leads to more plaque removal. For this reason, 2 minutes per brushing seems to be a reasonable recommendation.

Eliminate or minimize rinsing following brushing

Rinsing following toothbrushing should be limited, or not take place.

Children should be allowed to spit out excess toothpaste following brushing, but rinsing should be limited, or not take place. Studies have shown that rinsing washes away some of the benefits of the fluoride.[11,12,13,14]

Related References

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4. Toothbrush storage racks can be purchased online at: http://www.latsa.com/index.html

5. New, un-used egg cartons can be purchased through local companies, or can be found at a variety of on-line sites including: http://www.eggcartons.com/index.htm

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