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## Early Childhood Dental Caries

**Name of the First Author: Mrs. Vidhya.J.Pillai, Associate Professor, Upasana College of Nursing, Kollam. (Research scholar at Malwanchal University, Indore)**

**Name of the Second Author: Prof. Dr. Pradeep V S, Research Supervisor, Malwanchal University, Indore.**

### Abstract

Early Childhood Dental Caries can begin early in life, progresses rapidly in those who are at high risk and often goes untreated. It begins with white spot lesions in the upper primary incisors along the margin of the gingiva. Its consequences can affect the immediate and long-term quality of life of the child and family and can have significant social and economic consequences beyond the immediate family as well. It is commonly postulated that Early Childhood Dental Caries is a preventable disease. Fluoride varnish can prevent about one-third of cavities in the primary (baby) teeth. Children who brush daily with fluoride toothpaste and good oral hygiene will have fewer cavities.

**Keywords:** dental caries, early childhood caries, fluoride, cavities, teeth decay, flossing

### Introduction

Good oral/dental health is important for overall health and quality of life. Dental problems such as cavities or gum disease can impair the ability to eat and speak and cause pain and bad breath. Oral health is the health of the teeth, gums, and the entire oral-facial system that allows us to smile, speak, and chew. Some of the most common diseases that impact oral health include tooth decay/ dental caries. The good news is that cavities are preventable.

### Definition

Early Childhood Dental Caries is defined as the presence of one or more decayed, missing, or filled tooth surfaces in any primary tooth in a child at 71 months of age or younger (below 6 years). From age 3 through 6, one or more cavitated, missing teeth due to caries or filled smooth surfaces in primary maxillary anterior teeth.

It is generally first seen on the primary maxillary incisors



## Factors

- \* High sugar intake: Consume excessive amount of sugar and high fat foods.in the form of candies, sweet beverages etc.
- \* Social strata: Children that come from poor families are prone to get diseases. They Cannot afford professional health care services
- \* Lack of oral hygiene
- \* Lack of fluoride exposure
- \* Enamel defects

All children have bacteria in their mouth. So, all children are at risk for tooth decay. But the following may raise child's risk for it:

- High levels of the bacteria that cause cavities
- A diet high in sugars and starches
- Water supply that has limited or no fluoride in it
- Poor oral hygiene
- Less saliva flow than normal

## Clinical Appearance

Initial lesions appear as white spot on the facial tooth surface of maxillary incisors adjacent to the gingival margin, spreading later to the maxillary molar and mandibular molars.

Stage 1: Healthy teeth and gums

Stage 2: Chalky, white spots/lines on the tooth near the gum line

Stage 3: Yellow/brownish discolouration or cavities

Stage 4: well advanced decay or loss of tooth structure

## Early Childhood Caries

Normal Healthy Primary Teeth		
Chalky White Spots		
Brown Spots		
Severe Decay		

### Signs Of Tooth Decay

**Early tooth decay** can be hard to spot. The first sign of tooth decay is when teeth develop a dull, white band along the gum line (the area at the base of the teeth, near the gums) also see brown spots on the teeth, and the gums might be red and swollen.

With **more advanced tooth decay**, blackened holes in the teeth or broken teeth. If the decay has led to an infection, lumps or pimples on the gums or swelling around the gums and face.

### Consequences



- Dental pain, which affect children's regular activities, such as eating, talking, sleeping and playing
- Additional carious lesions in their primary and permanent dentition
- Loss of child's front teeth at an early stage
- Speech articulation are critical for speech development
- Decrease in appetite, ultimately resulting in malnutrition
- loss of time at school
- Delay in physical development, especially in height and weight.

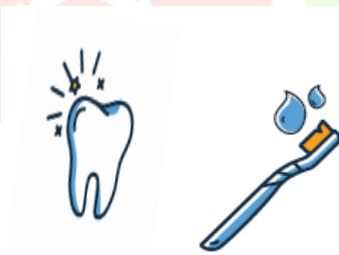
## Prevention Of Early Childhood Dental Caries

- ❖ Clean teeth and gums each day.
- ❖ Eat a healthy, low-sugar diet, and develop healthy eating habits.
- ❖ Brush twice a day (morning and night) and after eating sweets. The same goes for taking sweetened liquid medicines: always have kids rinse or brush afterward.
- ❖ Use a pea-sized amount of low-fluoride toothpaste on a child-size toothbrush.
- ❖ Teach kids to brush a tooth with fluoride toothpaste and to floss regularly. Fluoride is a mineral that keeps teeth strong and prevents tooth decay.
- ❖ Always supervise kids younger than eight while brushing, as they are likely to swallow toothpaste.



### ❖ BRUSHING TEETH: GETTING STARTED

When teeth come in, start brushing twice a day with a soft, small-bristled toothbrush and plain water.



Floss Daily



At 3-6 years, use a pea-sized amount of low-fluoride toothpaste. From 6 years, use a pea-sized amount of adult fluoride toothpaste.

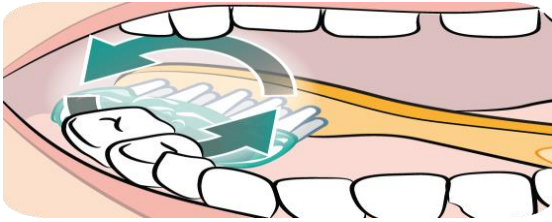


Sit or stand behind child in a brightly lit place, ideally in front of a mirror. This lets your child see what you're doing. It's easier to sit pre-schoolers in lap.



Use your free hand to support child's chin. Ask child to open and say 'ah'. Check for any signs of decay, like a white line or brown spots on the teeth close to the gums. Check for plaque build-up on teeth around the gumline.

### ***Brushing teeth: Steps***



Using small circular motions, brush all sides of each tooth and the gums. Brush the outer and inner sides of the teeth and along the gumline. Brush along the chewing surfaces of the teeth. Gently brush child's tongue. Brush for 2 minutes.



When brushing is finished child should spit out leftover toothpaste, not swallow it. There's no need to rinse after brushing because the fluoride toothpaste left behind protects child's teeth.

Keeping the toothbrush clean. After cleaning child's teeth and gums, rinse the toothbrush with tap water. Store the toothbrush upright in an open container to allow it to air-dry.

### **Toothbrushes: choosing and keeping them clean**

#### ***Choosing a toothbrush***

It's important to choose a toothbrush designed especially for children aged 3-5 years. These toothbrushes have small oval heads, soft bristles and non-slip, cushioned handles. They also often have cartoons and fun designs on the handle, which child might like.

#### ***Electric and manual toothbrushes***

These are equally good, as long as you use them properly to clean all the surfaces of all child's teeth. If deciding between a manual and an electric toothbrush, it's good to let child choose.

Replace toothbrushes every 3-6 months, or when the bristles get worn or fray

### ❖ Visiting the dentist

- Have regular check-ups with the dentist. At this age, children should visit the dentist regularly. Talk to dentist about how often your child needs a check-up. Dentists usually recommend every 6-12 months.

Vital organ of the body directly affected by dental problem is heart.



### ❖ Get enough Fluoride

Regular use of fluoride toughens the enamel, making it harder for acid to penetrate. Although many towns require tap water to be fluoridated, others don't. Water supply is not fluoridated or if family uses purified water, ask dentist for fluoride supplements. Most toothpastes contain fluoride, but toothpaste alone will not fully protect a child's teeth. Be careful, however, since too much fluoride can cause tooth discoloration. Check with your dentist before supplementing.

### ❖ Limit or avoid some foods

- Eat a healthy, low-sugar diet, and develop healthy eating habits
- If Sugary foods, juices, candy (especially sticky gummy candy, gummy vitamins,) can erode enamel and cause cavities. If kids eat these foods, have them rinse their mouth or brush their teeth after eating to wash away the sugar

### ❖ Limit Unhealthy drinks: fruit juice

- Fruit juices have high levels of sugar and don't have much fibre. Children don't need extra sugar – but they do need fibre. That's why it's better for them to eat fruit, rather than drink juice.
- If child drinks juice, try to limit it to ½ a cup per day.
- Soft drinks, sports drinks, and energy drinks have a lot of added sugar and virtually no nutrients in child's diet. It's best for children to eat whole fruit and drink plain tap water or milk. Water is better than fruit juice because it satisfies thirst and doesn't have any extra sugar
- These drinks can take the place of other more nourishing foods and drinks and can increase child's risk of tooth decay.

## Conclusion

The mouth is the window to the entire body. Oral and dental issues are recognized by WHO as a significant threat to public health that diminish the quality of life. Unfortunately, dental health is frequently subordinated to general health in India and this neglect results in the maintenance of poor dental hygiene among the general population. Early Dental decay affects nearly 85% of children. So parents, older siblings all teach kids the importance of brushing, flossing, avoid too many candies and sugary drinks. Early intervention can improve the identification of oral problems.



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