

The Proper Toothpaste for Children

Karimi M*

Department of Pediatric Dentistry, Sepideh Dental Clinic, Iran

***Corresponding author:** Mohammad Karimi, DMD, BS, Department of Pediatric Dentistry, Sepideh Dental Clinic, Iran, Email: drmokarimi@yahoo.com

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Introduction

Oral hygiene is important in childhood and adolescence. For this reason, the need for training and the use of proper toothpaste for children is essential for parents. This article is about how to use toothpaste for children of different ages. The components of toothpaste for children are adjusted to their age. The goal is to use them to keep both children's teeth clean and remain healthy and have no special side effects for the child. Also, the packaging and flavor of children's toothpaste are generally attractive to them. Prior to this, there was a particular standard for a child's toothpaste, for example, it was suggested that children's toothpaste should contain less fluoride, but today, except for a few countries that are more sensitive to this, recommendations for the production of toothpaste with less fluoride is not required. In 2012, the participants in the American Dental Association Council meeting recommended the use of fluoride toothpastes [1].

Today, there are an increasing number of types of toothpaste and brands for children, but how to choose the best and most suitable toothpaste for the child's health and to avoid the inappropriate ones; this is a matter of intellectual thinking. The importance of toothpaste in oral hygiene is less than brushing and the number of its frequency. That is if someone brushes his teeth correctly and at least 1 time a day (preferably nights before bedtime), and also use dental floss night time, then, it does not matter what type of toothpaste he uses. Here are some important factors in this field which we should familiar with:

Tips to Consider when Buying Children Toothpaste

Look for the Health Permit for Toothpaste

If parents are looking for a toothpaste that suits their children, it must first have a health certificate. This health

seal should be placed on the box and the toothpaste itself to ensure that it has achieved the standards.

Avoid Buying Toothpaste Containing Abrasive and Bleaching Agent

Many kinds of toothpaste, especially those labelled "whitening types", contain abrasives or chemicals that damage the tooth enamel.

Buy Toothpaste Containing Fluoride

The presence or absence of fluoride in kinds of toothpaste is an important factor for oral health. Fluoride is a scientifically proven material to help reduce caries in teeth of all ages and is particularly useful for strengthening newly developed teeth [1].

Fluoride toothpaste can be used at any age, but for less than three year's children, it should be used at a minimum amount. If a child regularly swallows fluoride, he has a problem called dental fluorosis [2]. This condition causes the enamel to not be well-formed and the tooth enamel has an opaque appearance with white to yellowish brown spots [3]. Also, swallowing fluoride toothpaste may cause nausea and vomiting. [4]. But the amount of fluoride in the toothpaste is not safe to swallow; therefore, parents should be careful when using a toothpaste containing fluoride for their kids. If the child is not grown enough to not swallow the toothpaste and spit it all out of the mouth, it is emphasized do not use fluoride toothpaste.

Considering the advice of dentists to use fluoride toothpaste, in case of infants and toddlers, if parents want to use fluoride toothpaste, they should apply a small amount of toothpaste on a toothbrush or fingers and then start brushing kid's teeth. After brushing, parents must remove the toothpaste by wiping out the toothpaste with a wet and soft cloth so that his child does not swallow that. By doing this, parents would assure that his child gets enough fluoride without the possibility of

swallowing. "The fluoride toothpaste is recommended for children 2 to 6 years of age" [1].

Parents should use fluoride-free toothpaste if children cannot do this for any reason. They should not allow children of low age to use toothpaste containing fluoride without their supervision. If the kid has swallowed a large amount of toothpaste, immediately see a doctor to check the condition of the child.

Consider the taste of the toothpaste

Although the toothpaste does not relate to the health of the children, it must be ensured that the kid's toothpaste does not have strong or bitter flavor, and the child tends to continue to use it. Most children are sensitive to strong flavors (such as mint, eucalyptus or cinnamon), and if they use such products, they may have nausea and burning sensation in the oral area. As a result, it may be that the children hate brushing their teeth and avoid doing that.

Properties of Appropriate Toothpaste

- a) To facilitate the removal of the dental plaque without any damage to the tooth enamel.
- b) Have good cleansing properties, and maintain the esthetic of the teeth
- c) Compatible with skin and oral mucosa and promote increasing saliva
- d) Have a nice flavor
- e) The effects of anti-caries property are abundant
- f) Eliminate tooth sensitivity.
- g) Easily are washed off from the teeth, mouths, and toothbrushes
- h) Protect teeth against periodontal diseases to a degree

Types of Toothpastes

Although dentists do not make any much difference between kinds of toothpaste, toothpaste has different types. Having knowledge of these products helps the improvement of oral and dental health because each of the toothpaste has their own special properties, such as toothpaste containing potassium nitrate, to reduce the sensitivity of the teeth and Toothpaste containing zinc citrate are best suited to fight gum inflammation [5].

Anti-plaque and Microbial Toothpaste

Microbial plaque is a layer of bacteria naturally present in the mouth. This layer is usually formed on the teeth surface within 24 hours and is easily removed using a toothbrush. It should be noted that brushing should be permanent and regular otherwise the layer will be

formed. Usually, all toothpaste contains Triclosan and, Sodium Fluoride which are known as antimicrobial agents [6].

Triclosan is a preservative that prevents the growth of microbes and prolongs the life of health products. Manufacturers of kinds of toothpaste add Triclosan to their products to prevent inflammation and excessive growth of the gums which the consumers should be careful and aware of its side effects. It can be effective in proliferating breast cancer cells and increase tumor volume. In addition, Triclosan interferes with the functions of the immune system and makes the body more vulnerable to cancer [7,8].

Despite the evidence that Triclosan has been seriously threatened to the health of human, the American Drug Administration has not categorized this substance as a high-risk substance.

Toothpaste with Fancy Flavors

This kind of toothpaste is more commercial, and its existence does not mean the best of the toothpaste. Most are made for children to increase their tendency to brush, but in general, their effect on caries prevention and teeth protection is negligible. Many brands of toothpaste also have fluoride-free toothpaste, and they usually offer a variety for children with different textures and flavors.

Whitening Toothpastes

Some toothpaste contains a substance called Peroxide that is believed to be a bleaching agent. But the important thing is that it cannot make teeth whitening. There is also a substance called Sodium Tripolyphosphate in some toothpaste that breaks down the pigment in the enamel, and the tooth seems to get whiter [9]. This group of toothpaste needs to be used twice a day for two to four weeks to work. The high use of this type of toothpaste causes tooth enamel wear, and teeth gradually become more sensitive. Abrasion of the tooth surface also makes the dentine surface appear yellower than the enamel surface. It's best for people not to whiten their teeth in the home rather leave this to the dentist to make the teeth whitening in a safe way.

Toothpaste Containing Abrasive Materials

Ingredients include Silicone Dioxide, potassium, and Aluminum silicate. Most toothpaste with this name in the market is manufactured so that they make the teeth cleaner and less abrasive [10]. It should be noted that when using these kinds of toothpaste, the tooth brushing technique should not be done with severe pressure

because of the possibility of tooth erosion. In these cases, it may lead to gingival laceration and weaken dentin. The ingredients in this toothpaste make the teeth cleaner, but parents should not buy toothpaste that contains a lot of abrasive materials, because of the existence of too much of it, causes damage to the enamel and dentine, and resulting in children's teeth become more sensitive and susceptible to dental caries [11,12].

Herbal Toothpaste

Some tubes of toothpaste contain xylitol which is a natural substance in some herbs that have been effective in caries reduction [13]; if it is swallowed, it would be safe for both adults and children. These kinds of toothpaste do not contain flavors and artificial colours. Of course, toothpaste containing synthetic materials are completely harmless, but these two kinds of toothpaste do not differ that much, and their effect on the prevention of dental caries is the same.

The Necessity of Using Toothpaste for Children

Maintaining oral health and turning to brush into a daily habit for children is one of the main goals of parents to encourage children to brush. Fluoride-containing toothpaste is very useful for children and adults due to the ability to prevent caries [14]. When toothbrushes for children were not massively produced in the factories in the past and were not begun to market for children with various beautiful of tubes and attractive shapes like nowadays, it was harder for children to be encouraged to brush their teeth. The taste of adult toothpaste for children was unbearable and resulting in escaping from the tooth brushing. But today, attractive puppet shapes and varied colours of toothbrushes, along with a variety of flavors of fruits and gelatinous toothpaste, make them interested in brushing. Even some children brush their teeth for the tasting of the fruity flavors of toothpaste. To encourage children to have better oral hygiene, parents should allow children to choose their toothbrushes and tubes of toothpaste.

What Age Should Children Start Brushing their Teeth?

With tooth eruption, the tooth cleaning process begins. At an early age, except a toothbrush, a cloth or cleansing pad no other cleansing device should be used to clean the child's teeth, as this is unpleasant for the baby. By increasing the number of teeth at age 2 to 16 teeth and at the age of three to 20 teeth, the use of supplementary cleaner such as toothpaste is recommended.

Regular brushing is important both for children and adults. This leads to the elimination of bacteria and plaque that causes decay and periodontal diseases. Once the first primary teeth are appearing on the gum, parents should begin to clean babies' teeth. All surfaces of the teeth and gums should be cleaned, and this procedure has to be applied twice a day with a soft and damp cloth or using a very soft toothbrush with only water (without any kinds of toothpaste) to clean the teeth and gums of the baby. If this happens as a habit from the beginning of a child's life, it will become routine in adulthood. Children's toothpaste containing less fluoride can be used for children from 18 months to 6 years of age [1].

For children, 0 to 18 months only use water without applying any kinds of toothpaste. Low-fluoride toothpaste should be applied from the age of 18 months to age 6, and use standard fluoride toothpaste from the age of 6 [1].

Applicable Amount of Toothpaste in Children

For children under the age of 2 years, a thin layer of toothpaste should be placed on the toothbrush surface, and at the age of 2 years, use a toothpaste in the amount of a pea size, and ask him to spit it out after brushing. It is noteworthy that those tubes of toothpaste should not contain high fluoride and the amount of fluoride must not exceed 1000 ppm (units per million) [15]. It is not necessary to buy a very large tube of toothpaste for two reasons. First of all, it is difficult for the child to hold it in his hands, and secondly, the kid does not need too much toothpaste for every tooth brushing. So, purchasing small tubes of children toothpaste is less expensive, as the child does not get tired of the taste, and the toothpaste will not last too long so that its date expired. Another problem with the use of toothpaste for small children is the risk of swallowing an ingestion of plenty of fluorides by the child; therefore, it is emphasized that mothers place the least amount of toothpaste on the toothbrush surface. There is no problem if toothpaste is used in this manner, but those who live in fluoride-rich areas and use large amounts of toothpaste can see the changing of the color on their teeth from white to yellow spots.

Time of Replacement Toothpaste

This is one of the questions that patients always ask their dentist: when should we change our toothpaste?

The opinions of the researchers are controversial in this regard. Some believe that using a tube of toothpaste should be constant and unchanged like the brushing

method. If the technique of tooth brushing of a patient does not cause any problem with oral health and it is effective in controlling the plaque and caries; and even if the toothpaste used by the person does not stimulate problems in terms of taste, sensitivity and etc., he can always use that toothpaste without any worry.

On the contrary, some other researchers believe that because of the inequality and variation of the percentage of abrasive materials and compositions, essences and anti-bacterial substances in the toothpaste, it is better for anyone to change his toothpaste after finishing a tube, and does not always use that constantly.

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