

FUNCTIONS OF PRIMARY TEETH

Well deciduous teeth are important and they are required to serve a number of functions above and beyond simply biting and chewing. This is why the children and parents need to take care of them and make sure they last until the permanent teeth are ready to come through.

Many opinions have been expressed about the features that characterize a normal primary dentition, but three features are seen frequently enough for them to be considered normal:

1. 'Straight' or 'mesial step second molar relationship'

In most dentitions the maxillary and mandibular primary second molars are in cusp-to-cusp occlusion so that their distal surfaces are in the same distal plane. Frequently, however, there is a mesial step in this vertical plane. This can also be considered normal. Distal 'step' indicate a class II arch relationship.

2. Incisor spacing: Spacing among the primary incisors is normal, and indicates that the permanent successors will probably have adequate space into which to erupt. Lack of spacing or imbrication of primary incisors are signs that permanent incisors will probably be crowded when they erupt.

3. Anthropoid (primate space): The most common sites for spaces in the primary teeth are in the canine regions. The anthropoid spaces are mesial to the maxillary canines and distal to the mandibular canines.

Considerable variations occur in the overbite and overjet of incisors and it is difficult to define normality.

Once the primary dentition is completed, the dimensions and form of the arches change very little until permanent teeth begin to erupt; any increases in the width and length that have been reported are small. Interdental spaces in spaced dentitions do not increase in width, nor do spaces develop in unspaced dentitions. However, two changes may be seen during this period: attrition of teeth (especially of anterior teeth), and reduction of overbite and overjet, so that the incisors may, by the age of 5-6 years, occlude 'edge to edge'.

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1. Biting and Chewing

The most obvious function of the primary teeth is for biting and chewing food.

2. Nutrition

Children need to eat a wide variety of food to gain a well-balanced diet. A child with limited teeth or one who is experiencing discomfort from tooth decay may refuse foods or limit food intake to those that can be consumed easily or with minimum discomfort. Chewing a variety of textures also stimulates the oral environment and exercises the jaw muscles.

The ability to bite and chew also helps to break up food into more easily digestible pieces and allow for better digestion of food. As the food is being broken up by the teeth, it is also mixed with saliva containing enzymes that begin the digestive process. A child who swallows too rapidly without chewing the food adequately will prolong the digestive process.

3. Speech

Teeth are necessary for the articulation of certain sounds. Young children who are still learning how to speak properly need their teeth to help them pronounce words and speak clearly.

4. Development of the Jaw Bones and Facial Muscles

Primary teeth are essential in the development of the mouth. The presence or absence of teeth will affect the way in which the jaw bones and facial muscles develop. The growth of the jaw bones are affected by the facial muscles.

The primary teeth maintain the arch length within the jaw. The bone and the permanent teeth successor develop from the same tooth germs as the primary teeth. The primary teeth provide guides for the eruption pathway of the permanent teeth. The roots of primary teeth provide an opening for the permanent teeth to erupt.

Inhibited development of the jaws and dental arches will occur if there is massive premature loss of primary teeth. This is because the tongue muscles lack the attachment surfaces for widening the dental arch. Unilateral primary tooth loss is therefore considered a localized abnormality of exfoliation from the orthodontic point of view.

5. Space Holder

The primary teeth are place holders for the permanent teeth. They are intended to hold a space in the jaws until the permanent tooth is ready to erupt. When the permanent tooth is ready, it will push out from below the primary tooth, causing the roots of the primary tooth to resorb. Therefore, the primary teeth also serve as a guide for the permanent teeth to erupt into its proper position.

When primary teeth are lost prematurely, the permanent teeth have no guide to follow. Additionally, the adjacent teeth tend to close the gap of the missing tooth, meaning there will be insufficient space for the permanent tooth to erupt into. This can lead to crowding of the permanent teeth.

6. Aesthetics

A child without teeth or with missing teeth may look cute, but the premature loss of primary teeth leads to malposed permanent teeth which may cause psychological trauma to the child.

The primary teeth are important not only for biting and chewing but they also serve several other functions. For these reasons, we need to help our children take care of them until they are old enough to do it themselves.

The general order of eruption of the primary dentition as described in the last lectures with the mandibular pairs preceding the maxillary teeth. The loss of the deciduous teeth tends to mirror the eruption sequence, with the mandibular pairs preceding the maxillary teeth.

A lack of space associated with premature loss of deciduous teeth is a significant factor in the development of malocclusion. The development of adequate spacing is an important factor in the development of normal occlusal relations in the permanent dentition. Thus there should be no question of the importance of preventing and treating dental decay and providing the child with a comfortable functional occlusion of the deciduous teeth.

TYPES AND FUNCTION OF INDIVIDUAL PRIMARY TEETH

INCISORS

Incisors are the eight teeth in the front of the mouth (four on top and four on bottom). These are the teeth that are used to take bites of eaten food.

Incisors are usually the first teeth to erupt — at around 6 months for the baby teeth, and between ages 6 and 8 for the adult set.

Function of primary incisors:

- 1. Incisors cut and slice food when the child takes a bite. The incisors are the main teeth used for cutting pieces of food, for example when eating a whole apple, the incisors are the teeth that slice through the apple and help to get the piece of apple into the mouth to be fully chewed by other teeth.*
- 2. Incisors support the lips and face. The sides of the lips are probably resting right up against the front teeth. Because of this, incisor teeth help to form the overall appearance of the face.*
- 3. Help in speech. As in pronunciation of some sounds, the tongue touches the upper incisors. It touches near the top of the incisors for the “t” sound and near the bottom for the “th” sound. Many sounds need the incisor teeth to be pronounced. It’s also why denture wearers have to re-learn how to speak clearly when they get their dentures.*
- 4. They can make the smile beautiful. The first thing that most people notice in the smile will be the teeth. Since the incisors are the front teeth, they have a tremendous effect on how the smile looks.*
- 5. Incisors help to guide the jaw when closing the mouth.*

CANINES

The four canines are the next type of teeth to develop. These are the sharpest teeth and are used for tearing food apart. Primary canines generally appear with the upper canines coming in just ahead of the lower canines. In permanent teeth, the order is reversed.

MOLARS

Molars are used for chewing and grinding food. Primary molars are replaced by the first and second premolars. The permanent molars do not replace any primary teeth, but come in behind all of them, further back in the jaw.

