

## **LINGUAL ERUPTION OF MANDIBULAR PERMANENT INCISORS**

The primary teeth may have undergone extensive root resorption and may be held only by soft tissues. In other instances, the roots may not have undergone normal resorption and the teeth remain solidly in place. It is common for mandibular permanent incisors to erupt lingually, and this pattern should be considered essentially normal.

The tongue and continued alveolar growth seem to play important roles in influencing the permanent incisors into a more normal position with time. Although there may be insufficient room in the arch for the newly erupted permanent tooth, its position will improve over several months. In some cases, there is justification for removal of the corresponding primary tooth. Extraction of other primary teeth in the area is not recommended, however, because it will only temporarily relieve the crowding and may even contribute to the development of a more severe arch length inadequacy.

Even when mandibular permanent incisors erupt uneventfully, they often appear rotated and staggered in position. The molding action of the tongue and the lips improves their relationship within a few months.

## **TEETHING AND DIFFICULT ERUPTION**

Teething is the process by which an infant's teeth erupt, or break through, the gums.

Teething is also referred to as "cutting" of the teeth.

Teething is medically termed Odontiasis.

**Complication in teething process:**

1- Increase in salivation, the child will want to put the hand and fingers into the mouth—these observations may be the only indication that the teeth will soon erupt.

2- The young child may become restless and fretful during the time of eruption of the primary teeth. He may lose his appetite.

3- In the past, many conditions, including croup, diarrhea, fever, convulsions, primary herpetic gingivostomatitis, and even death have been incorrectly attributed to eruption. Because the eruption of teeth is a normal physiologic process, the association with fever and systemic disturbances is not justified. A fever or respiratory tract infection during this time should be considered coincidental to the eruption process rather than related to it.

4- Inflammation of the gingival tissues before complete emergence of the crown may cause a temporary painful condition that subsides within a few days. The surgical removal of the tissue covering the tooth to facilitate eruption is not indicated.

- **If the child is having extreme difficulty and to relief pain use:**

a- A nonirritating topical anesthetic may bring temporary relief. The parent can apply the anesthetic to the affected tissue over the erupting tooth three or four times a day.

b- Several low-dose products specifically formulated for infants are available without prescription. Caution must be exercised, however, when one is prescribing topical anesthetics, especially for infants, because systemic absorption of the anesthetic agent is rapid, and toxic doses can occur if the product is misused. The parent must clearly understand the importance of using the drug only as directed.

c- The eruption process may be hastened if the child is allowed to chew on a piece of toast or a clean teething object.

## **Interval of rest**

It is the longest time between eruptions of two successive permanent teeth.

ex.

$\frac{2}{2}$  And  $\frac{4}{4}$  (1.5 years).

## **ERUPTION HEMATOMA (ERUPTION CYST)**

An eruption hematoma is a bluish-purple elevated area of tissue occasionally develops a few weeks before the eruption of a primary or permanent tooth. It may result from trauma to the area during function and then hemorrhage in the follicle of an erupted tooth and it will subside after eruption after breakage of the soft tissue by the tooth. The blood-filled cyst is most frequently seen in the primary second molar or the first permanent molar region (6 and E). Because the condition is almost always self-limiting, treatment of an eruption hematoma is rarely necessary. However, surgical uncovering of the crown may occasionally be justified. When the parents discover an eruption hematoma, they may fear that the child has a serious disease such as a malignant tumor. The dentist must be understanding and sensitive to their anxiety while reassuring them that the lesion is not serious.

## **ERUPTION SEQUESTRUM**

The eruption sequestrum is occasionally seen in children at the time of the eruption of the first permanent molar (6). Clinically it is appearing as a tiny spicule of nonviable bone overlying the crown of an erupting permanent molar just before or immediately after the emergence of the tips of the cusps through the oral mucosa. It

is composed of dentin and cementum as well as a cementum-like material formed within the follicle.

Eruption sequestrum are usually of little or no clinical significance. It is probable that some of these sequestrum spontaneously resolve without noticeable symptoms. However, after an eruption sequestrum has surfaced through the mucosa, it may easily be removed if it is causing local irritation. The base of the sequestrum is often still well embedded in gingival tissue when it is discovered, and application of a topical anesthetic or infiltration of a few drops of a local anesthetic may be necessary to avoid discomfort during removal.

### **ECTOPIC ERUPTION**

A variety of local factors may influence a tooth to erupt or try to erupt in an abnormal position such as arch length inadequacy and tooth mass redundancy. Occasionally this condition may be so severe that actual transposition of teeth takes place.

Ectopic eruption of canine is due to the mesial inclination of the permanent canine becoming impacted in the palate or impacting on the root of the lateral incisor.

First permanent molars may be positioned too far mesially in their eruption path, with resultant ectopic resorption of the distal root of the second primary molar.

There are two types of ectopic eruption— reversible and irreversible. In the reversible type, the molar frees itself from the ectopic position and erupts into normal alignment, with the second primary molar remaining in position while in the irreversible type, the maxillary first molar remains unerupted and in contact with the cervical root area of the second primary molar. By the ages of 7 and 8 years, any ectopic eruption of a permanent first molar should be considered irreversibly locked.

The ectopic molar often occurred in more than one quadrant and was most often observed in the maxilla.

Irreversible ectopic molars that remain locked, if untreated, can lead to premature loss of the primary second molar with a resultant decrease in quadrant arch length, asymmetric shifting of the upper first molar toward Class II positioning, and supra-eruption of the opposing molar with distortion of the lower curve of Spee and potential occlusal interference. Early assessment with intraoral or panoramic films approximating the timing of first permanent molar eruption is thus critical to identification of the problem and provides an opportunity to intercept potential sequelae. If the problem is detected at 5 to 6 years of age, an observation approach of “watchful waiting” with appropriate monitoring may be indicated, given the two-thirds potential for self-correction. With self-correction being unlikely as the child approaches 7 years of age, continued “locking” of the first molar with advanced resorption of the primary second molar usually warrants intervention. Another timing clue is that when the opposing molar reaches the level of the lower occlusal plane, intervention is indicated to establish proper vertical control and prevent supra-eruption.