

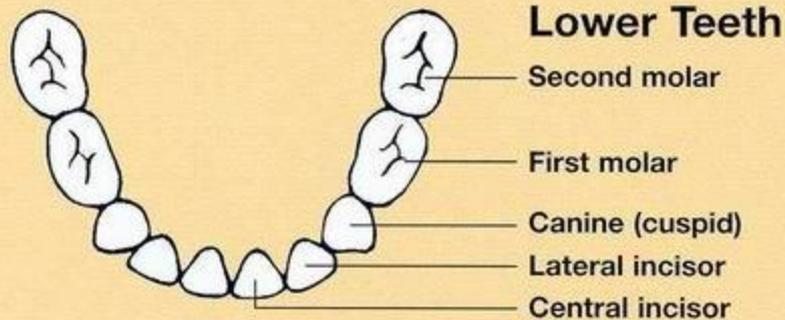
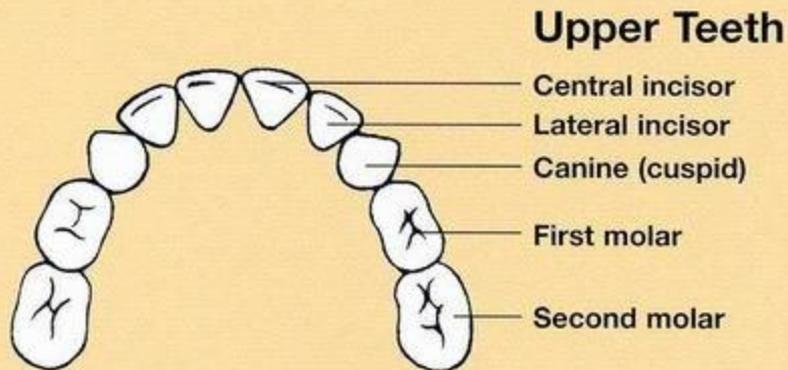
PEDIATRIC DENTISTRY

VARIATION IN THE SEQUENCE OF ERUPTION

LEC.2

Dr. mukhaled Louay Al.falluji

P.D.S. M.Sc.



Erupt

8-12 mos.
 9-13 mos.
 16-22 mos.
 13-19 mos.
 25-33 mos.

Shed

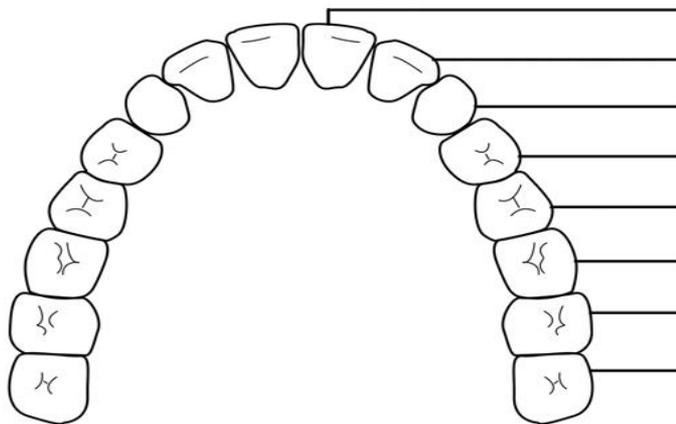
6-7 yrs.
 7-8 yrs.
 10-12 yrs.
 9-11 yrs.
 10-12 yrs.

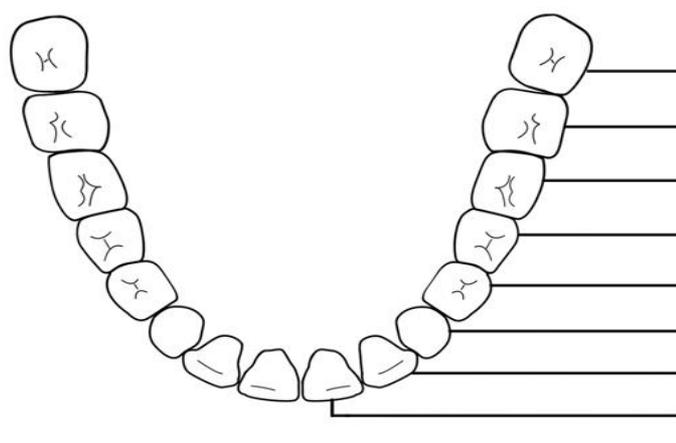
Erupt

23-31 mos.
 14-18 mos.
 17-23 mos.
 10-16 mos.
 6-10 mos.

Shed

10-12 yrs.
 9-11 yrs.
 9-12 yrs.
 7-8 yrs.
 6-7 yrs.

Upper Teeth		When tooth "comes in"
	Central incisor	7-8 yrs
	Lateral incisor	8-9 yrs
	Canine	11-12 yrs
	First premolar	10-11 yrs
	Second premolar	10-12 yrs
	First molar	6-7 yrs
	Second molar	11-12 yrs
	Third molar	17-21 yrs

Lower teeth		When tooth "comes in"
	Third molar	17-21 yrs
	Second molar	11-13 yrs
	First molar	6-7 yrs
	Second premolar	11-12 yrs
	First premolar	10-11 yrs
	Canine	9-10 yrs
	Lateral incisor	7-8 yrs
	Central incisor	6-7 yrs

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- ▣ The mandibular first permanent molars are often the first permanent teeth to erupt. They are quickly followed by the mandibular central incisor.
- ▣ the most common sequence of eruption in the mandible is first molar, central incisor, lateral incisor, canine, first premolar and second premolar. second molar.

- ▣ The most common sequence for eruption of the maxillary permanent teeth is first molar, central incisor, lateral incisor, first premolar, second premolar, canine and second molar. These sequence in each arch to be favorable for maintaining the length of the arches during transitional dentition.

- ▣ It is desirable the mandibular canine erupt before the first and second premolar. This sequence aids in:
 1. Maintaining adequate arch length.
 2. Preventing lingual tipping of the incisors. Which lead to loss of arch length and also allows the development of an increased overbite.

- ▣ Abnormal lip musculature or oral habit that causes a greater force on the lower incisors than can be compensated by the tongue allows a collapse of the anterior segment.
- ▣ A deficiency in arch length can occur if the mandibular second molar developed and erupts before the second premolar.
- ▣ Eruption of the second permanent molar first encourage mesial migration or tipping of the first permanent molar and encroachment on the space needed for the second premolar.

- ▣ In the maxillary arch the first premolar ideally should erupt before the second molar, and they should be followed by the canine. The untimely **loss** of **primary molars** in the maxillary arch, which allow the first permanent molar to drift and tip mesially, results in the permanent canine being blocked out of the arch, usually to the labial side.



- ▣ The position of the developing second molar in the maxillary arch and its relationship to the first molar should given special attention. Its eruption before the premolars and canine cause the a loss of arch length.
- ▣ Eruption of the maxillary canine is often delayed because of an abnormal position or devious eruption path.

Lingual eruption of mandibular permanent incisors

- ▣ The eruption of the lower incisors lingually to retained primary incisors is often a source of concern for parents. The primary teeth may have undergone extensive root resorption and may held only by soft tissues. In other instances the roots may not undergone normal resorption and the tooth remain solidly in place.
- ▣ It is common for mandibular permanent incisors to erupt lingually.
- ▣ Considered normally.

- ▣ Tongue and continual growth of alveolar bone seem to play an important role influencing the permanent incisors into a more normal position with time.
- ▣ Insufficient room in the arch for the newly erupted permanent tooth, its position will improve over several months.

Teething and difficult eruption

- ▣ In most children the eruption of primary is preceded by increased salivation and the child will want to put the hand and fingers into mouth.
- ▣ These observations be the only indication that the teeth will soon erupt.
- ▣ Some young children become restless and fretful during the time of eruption of the primary teeth.



- ▣ Many conditions, including croup, diarrhea, fever, convulsion, primary herpetic gingivostomatitis and even death have been incorrectly attributed to eruption. While, because the eruption is a normal physiological 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.

- ▣ Inflammation of the gingival tissues before complete emergence of the crown may cause temporary painful condition that subsides within a few days.
- ▣ Surgical removal of the tissues.....
- ▣ Application of non irritant topical anesthesia....
- ▣ The eruption process hastened if the child is allowed to chew on a piece of toast or a clean teething object.

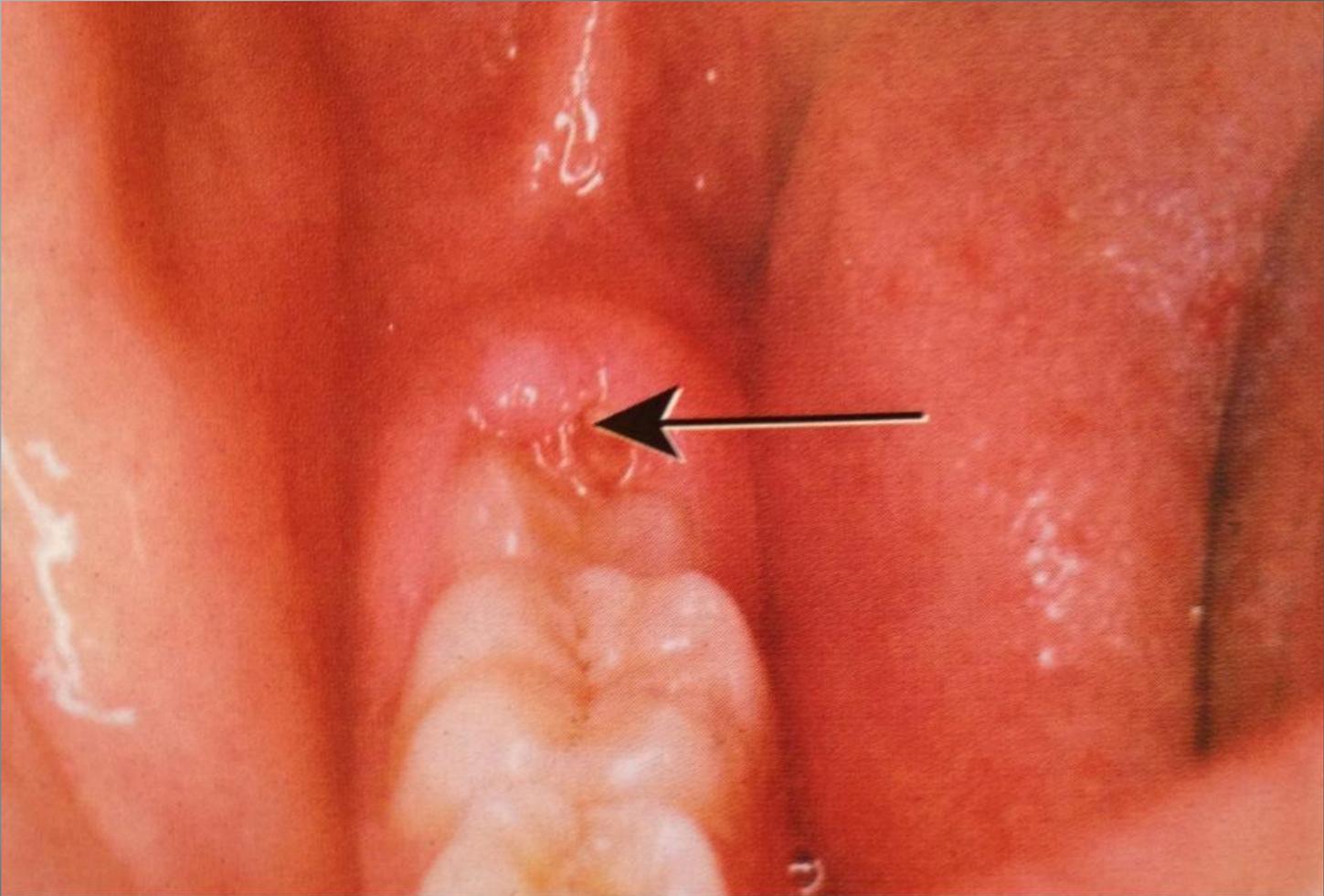
Eruption hematoma



Eruption hematoma

- ▣ A bluish purple, elevated area of tissue, commonly called an *eruption hematoma*.
- ▣ Developed a few weeks before the eruption of a primary teeth.
- ▣ Frequently seen in the primary second molar or the first permanent molar regions.
- ▣ As a result of trauma to the soft tissue during function.
- ▣ Self limited. Treatment rarely necessary.

Eruption sequestrum



Eruption sequestrum

- ▣ Is seen in a children at time of eruption of first permanent molar.
- ▣ Described as a tiny spicule of nonviable bone overlying the crown of an erupting permanent molar just before or immediately after the emergence of the tip of the cusps through the oral mucosa.
- ▣ Composed of cementum like material formed within the follicle.
- ▣ Little or no clinical significance.

Ectopic eruption



New Teeth Erupting

Ectopic eruption

- ▣ Arch length inadequacy, tooth mass redundancy , or a variety of local factors may influence a tooth to erupt or try to erupt in an abnormal position.
- ▣ Sever in transposition of teeth takes place.
- ▣ Periapical and bite wing radiographs is important before the eruption of the first permanent molars to detect the ectopic eruption and cause resorption of the distal root of the second primary molar.
- ▣ May be completely blocked and cause premature exfoliation of second primary molar or make it necessary extracted the affected tooth.
- ▣ May correct itself and erupt into its normal position after causing minor destruction to second primary molar.

- ▣ The ectopic eruption occasionally occurred in more than one quadrant in the same mouth but was most often observed in the maxilla.
- ▣ There are two types of ectopic eruption:
 1. Reversible.
 2. Irreversible.
- ▣ When the impacted first permanent molar has not erupted or partial erupted, the treatment of choice is only waiting because more than half of the teeth will eventually erupt into normal position.

Natal and neonatal teeth



Natal and neonatal teeth

- ▣ Natal teeth :present at birth.
- ▣ Neonatal teeth :erupt during the first 30 days.
- ▣ The prevalence of natal and neonatal teeth is low.
- ▣ 85% of natal or neonatal teeth are mandibular primary incisors, and only small percentage are supernumerary teeth.
- ▣ Occur in pairs.
- ▣ Radiograph should be made.

- ▣ Most prematurely erupted teeth are hypermobile because of the limited root development.
- ▣ May be danger of displacement of the tooth and possible aspiration; in this case the removal of the tooth is indicated.
- ▣ The sharp incisal edge of the tooth
- ▣ The preferable approach, is to



Thank you!