

Deciduous Teeth

Part (1)

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Lecture Objectives

1. Identify the importances of deciduous dentition.
معهم تصفوه جـ بي بي في oslp
2. Know the **sequence of eruption** of deciduous teeth.
3. Describe the different types of deciduous teeth.
4. Differentiate between deciduous and permanent teeth.
5. Know the spaces generated during deciduous dentition.



Deciduous teeth

Preface

بمحاضرات السيدان

Human oral cavity is categorized as heterodont and diphyodont.

🕒 Definition of heterodont:

Heterodont means that the human mouth contain a teeth with different types, shapes, sizes and different functions.

🕒 Definition of diphyodont:

Diphyodont means that the human mouth contain two sets of teeth, one during the child period (termed deciduous dentition) and the other for the adult termed (permanent dentition).

Importances of Deciduous Teeth

Importances of deciduous teeth

1. Mastication of food for maintenance of a proper diet needed for child growth.
2. Maintenance of the normal facial appearance and craniofacial growth.
3. Development of speech and pronunciation of letters.
4. Maintenance of the space needed for eruption of permanent teeth.
5. Act as a guide for eruption of permanent successors.
6. Act as a guide for eruption of first permanent molars.
7. Prevent malocclusion of permanent teeth.

Differences Between Deciduous and Permanent Teeth

I. General Differences

1. Number:

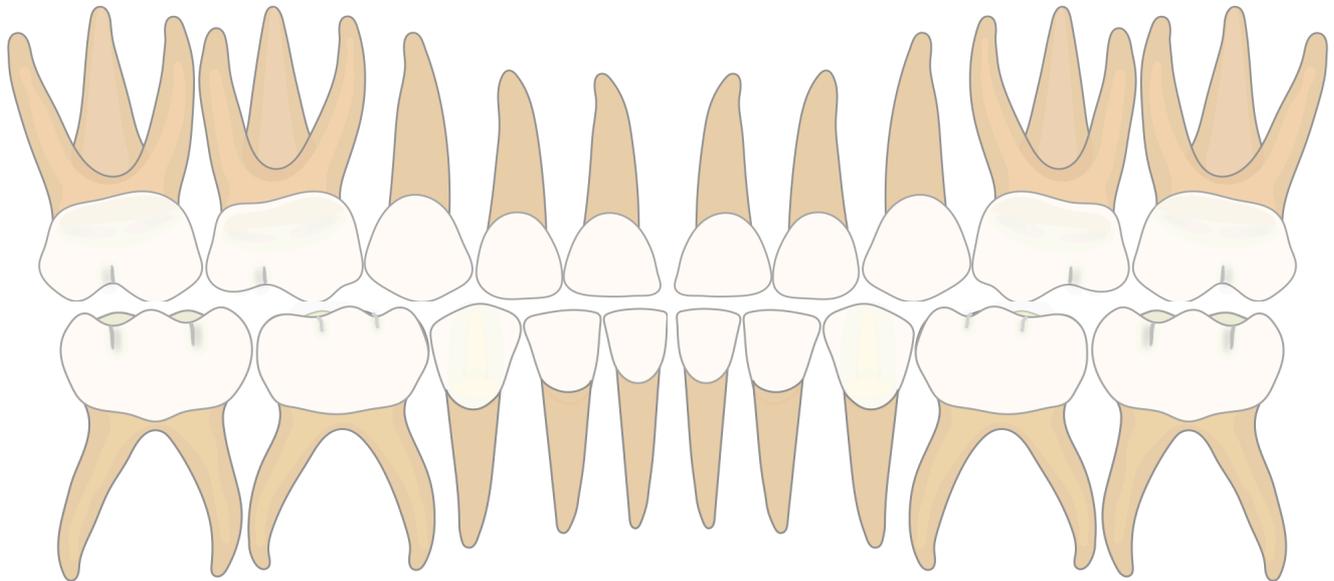
Deciduous teeth

20 teeth

5 in each quadrant

Upper Right

Upper Left



Lower Right

Lower Left

1. Number:

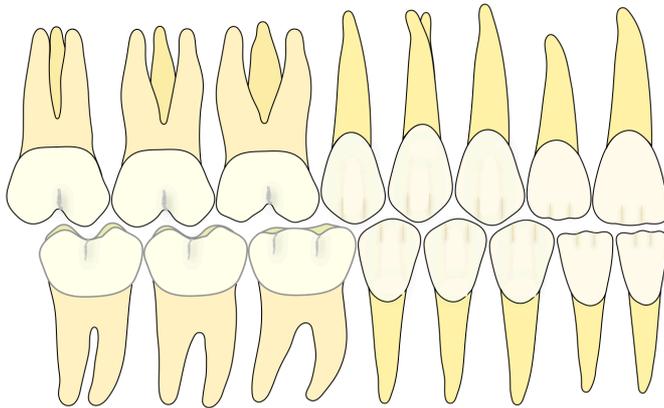
Permanent teeth

32 teeth

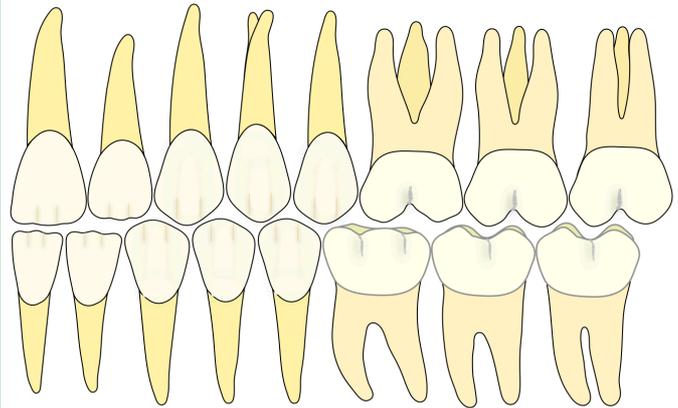
8 in each quadrant

ممکن ہے زیادتی کی حالت
↓
عنصر
32

Upper Right



Upper Left



Lower Right

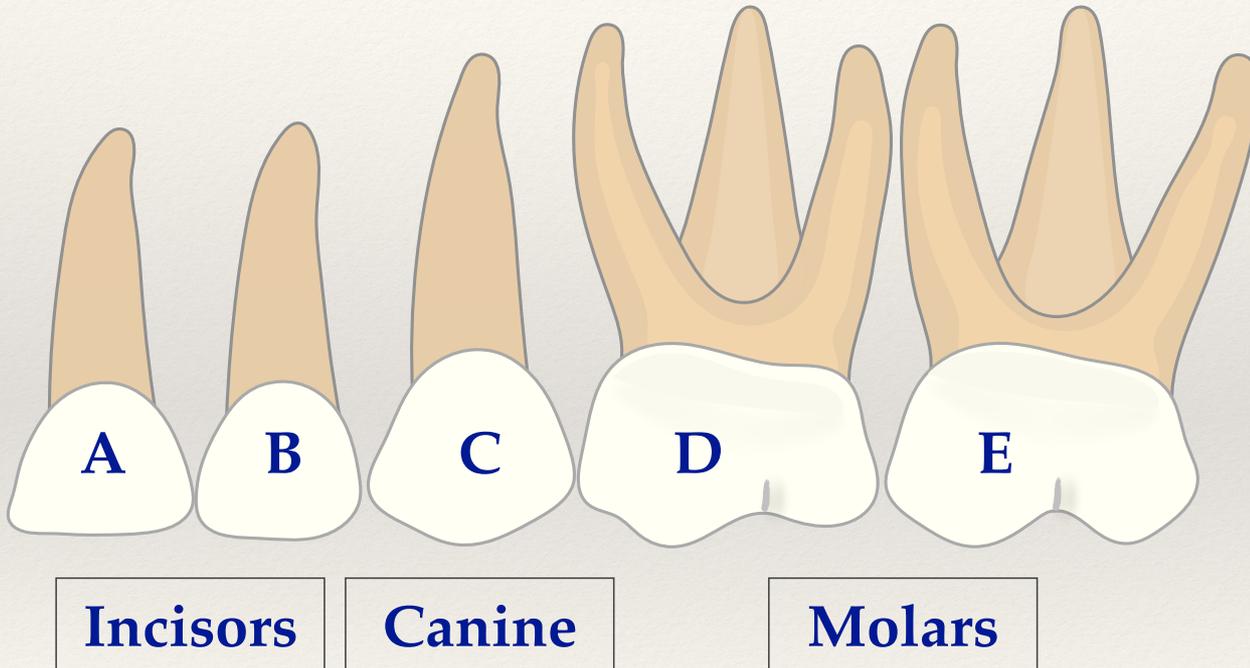


Lower Left



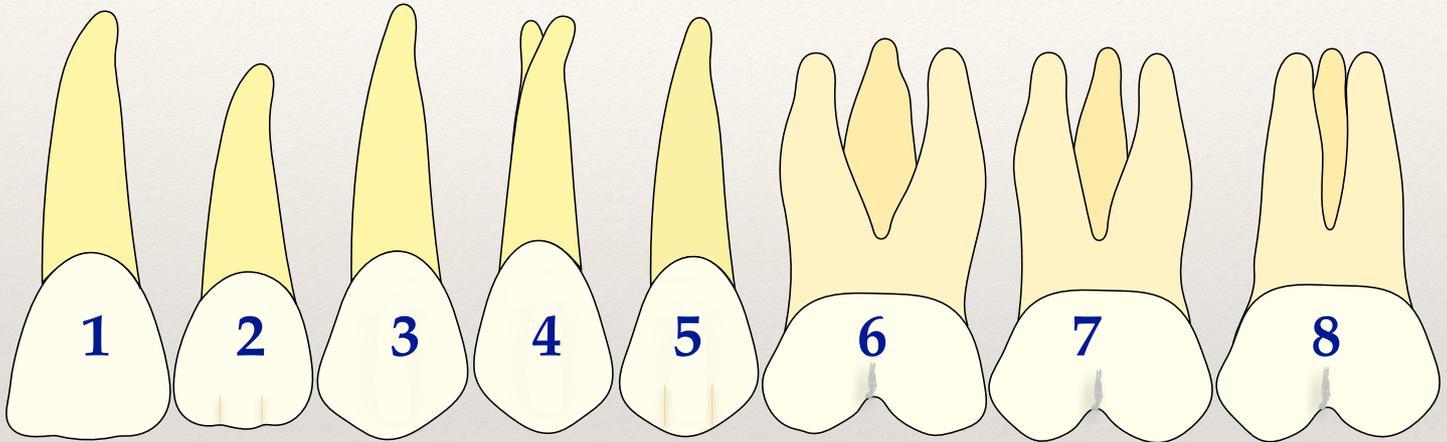
2. Teeth Categories:

Deciduous teeth



2. Teeth Categories:

Permanent teeth



Incisors and canine

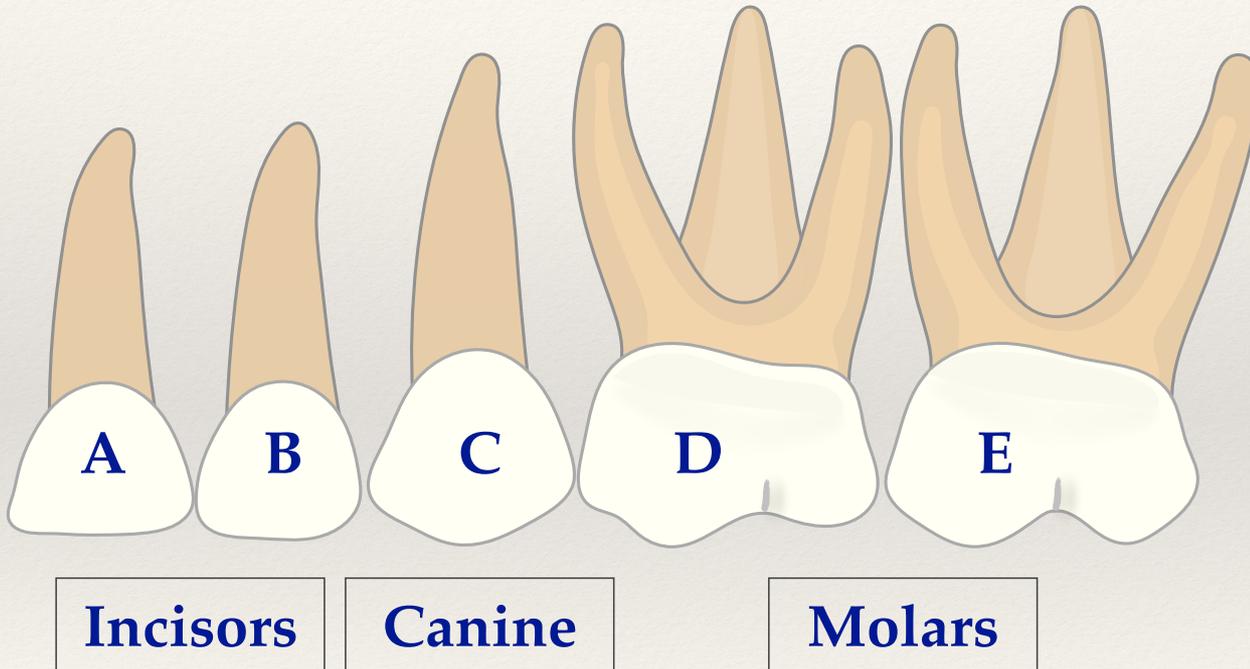
Premolars and molars

Anterior teeth

Posterior teeth

3. No premolars or third molar:

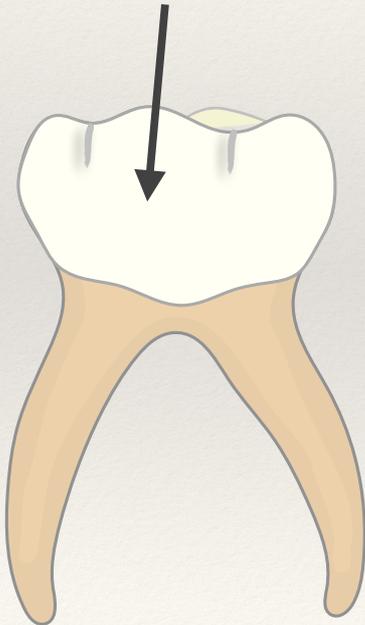
No premolars and no third molar in deciduous teeth



4. Color of the Crown:

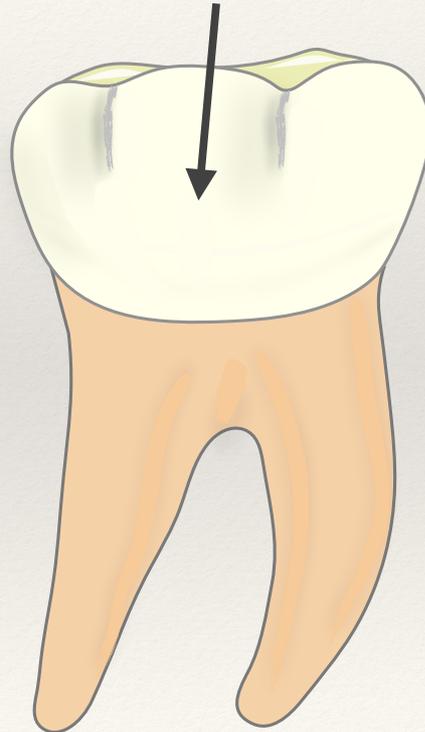
Deciduous teeth

Whiter in color



Permanent teeth

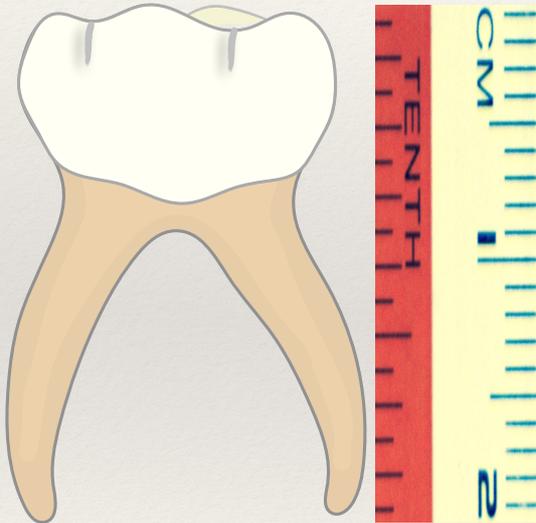
Yellowish in color



5. Size of deciduous Teeth:

Deciduous teeth

Smaller in size



Permanent teeth

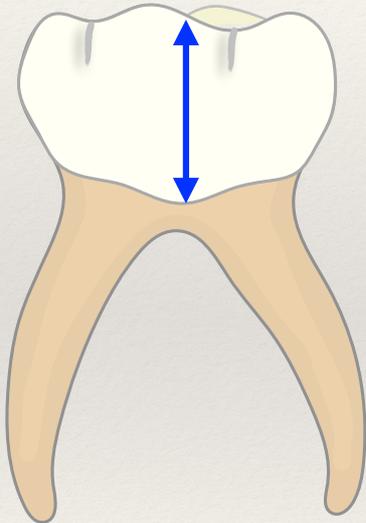
Larger in size



6. Crown length of deciduous Teeth:

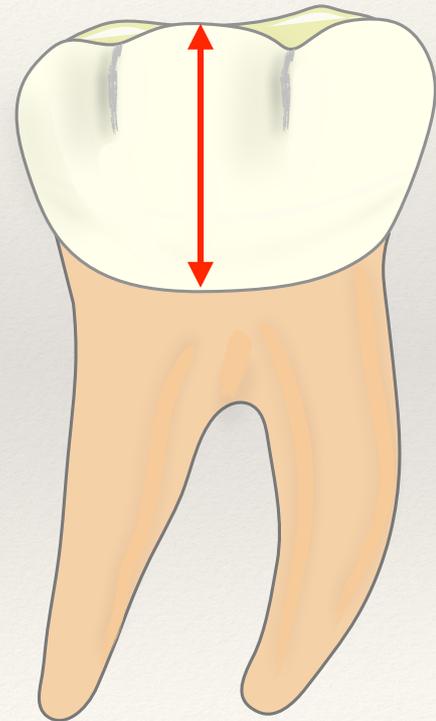
Deciduous teeth

Smaller in size



Permanent teeth

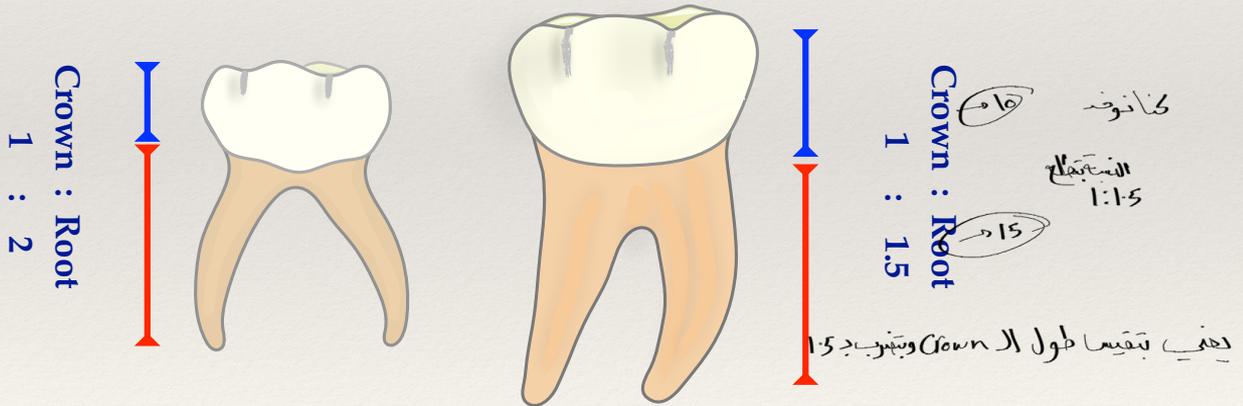
Larger in size



7. Root length of deciduous Teeth:

- Root of deciduous teeth is longer in relation to crown length.
- Crown root ratio of deciduous teeth measure about 1 : 2
- Crown root ratio of permanent teeth measure about 1 : 1.5

مهم جداً



8. Dental Formula:

Deciduous teeth

Permanent teeth

$$I \frac{2}{2} \quad C \frac{1}{1} \quad M \frac{2}{2}$$

$$I \frac{2}{2} \quad C \frac{1}{1} \quad P \frac{2}{2} \quad M \frac{3}{3}$$

Other way

مثبت مقرونه
عليه السلام →

$$I C P M$$
$$2102 / 2102$$

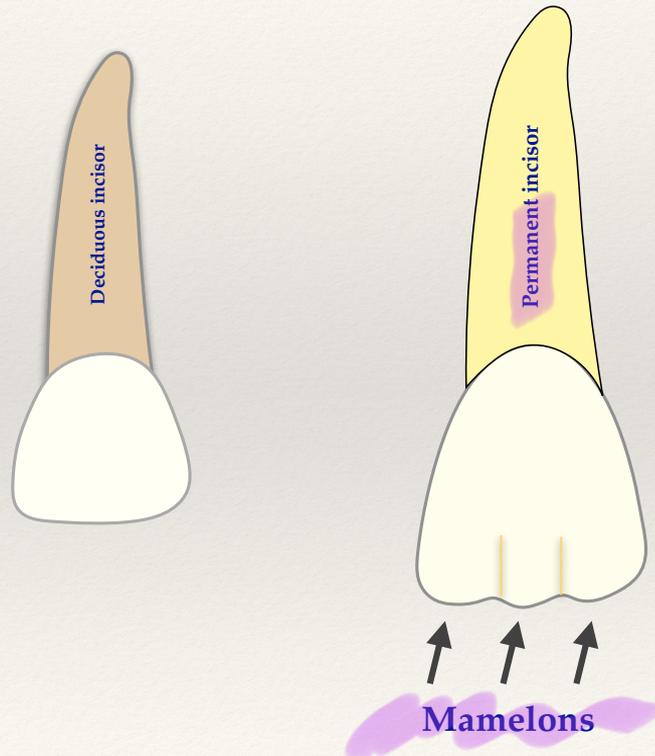
$$I C P M$$
$$2123 / 2123$$

Differences Between Deciduous and Permanent Teeth

II. Anatomical Differences

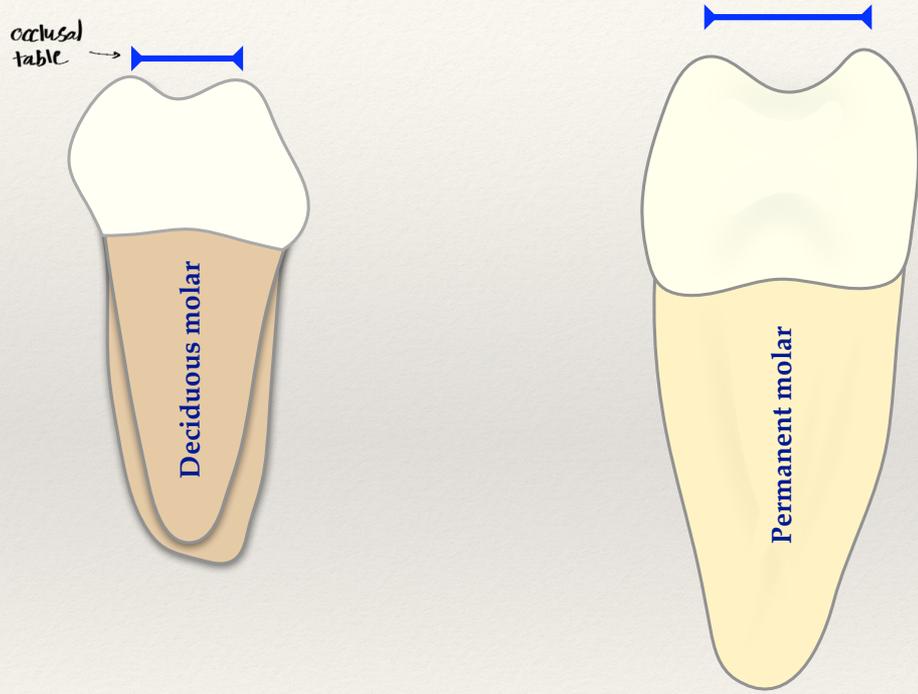
1. Deciduous incisors contain no mamelons.

Mamelons found only in newly erupted permanent incisors.

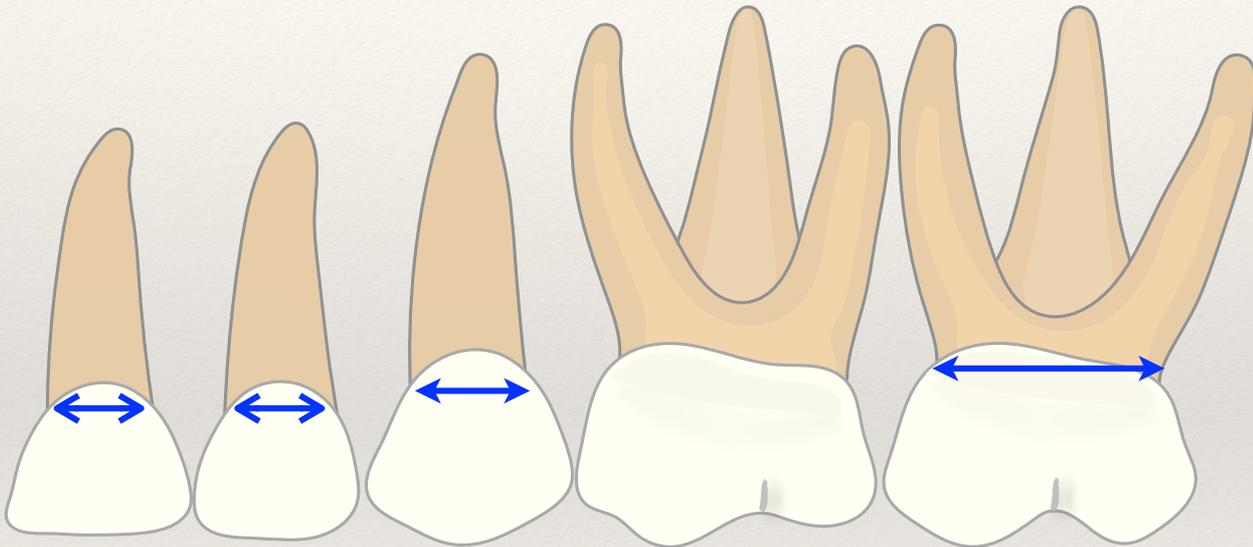


2. Posterior deciduous teeth contain narrow occlusal table.

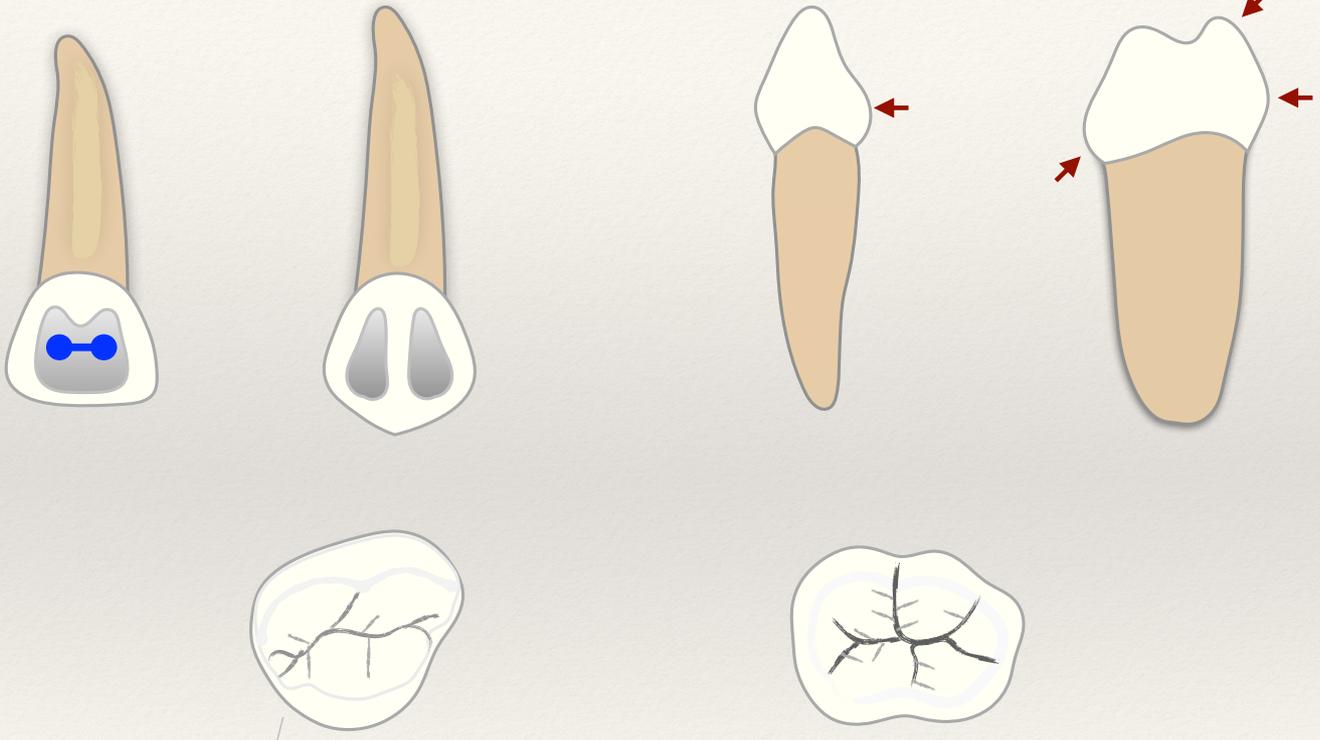
↓
كل ما قبل كل ما بعد النعوم



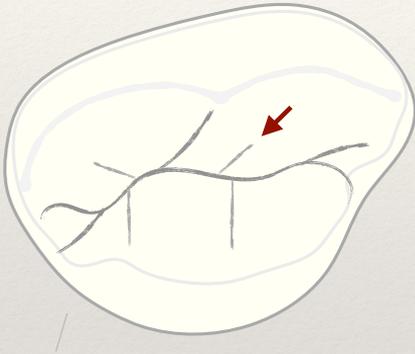
3. All deciduous teeth has **constricted neck**.



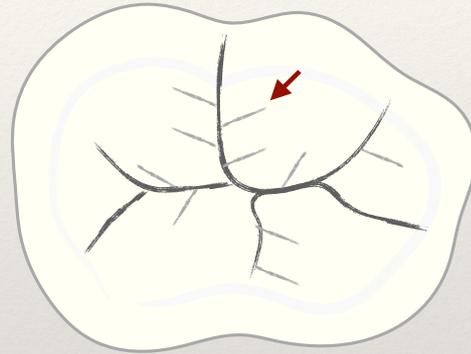
4. Crown elevations and depression of deciduous teeth are more developed.



5. Crown of deciduous teeth has more supplemental grooves.



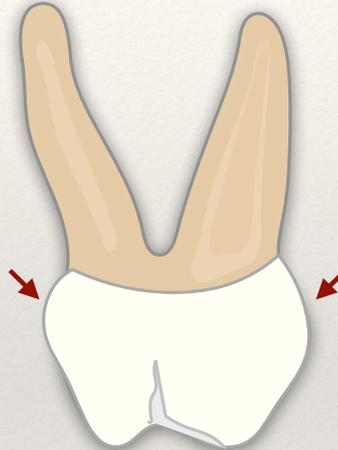
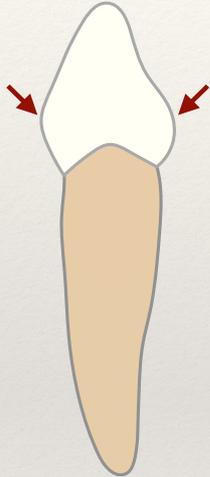
**Maxillary deciduous
first molar**



**Mandibular deciduous
second molar**

6. All maximum contour of labial, buccal, and lingual are located at cervical 3rd.

1st



Mesial Anter Aspect → cervical 3rd

Max & Man Post teeth decid
buccal > lingual
cervical 3rd

Permanent → middle 3rd

Differences Between Deciduous and Permanent Teeth

III. Histological Differences

Deciduous teeth is differ from permanent by:

1. Enamel:

The enamel of deciduous teeth is thinner and less calcified.

2. Dentin:

The dentin of deciduous teeth is thinner and less calcified.

3. Cementum:

The cementum of deciduous teeth is thinner and less calcified.

4. Pulp:

- The pulp chamber of deciduous teeth is larger in relation to crown size.
- The pulp horns related to cusps are located at a higher position.
- The vascularity and cellularity of the pulp are more active.
- Potentiality for repair is at higher level.

لانه متوقعه الاطفال عالي
الجر نسبة لمجم السن

Chronology

Sequence of Eruption of
Deciduous and Permanent Teeth

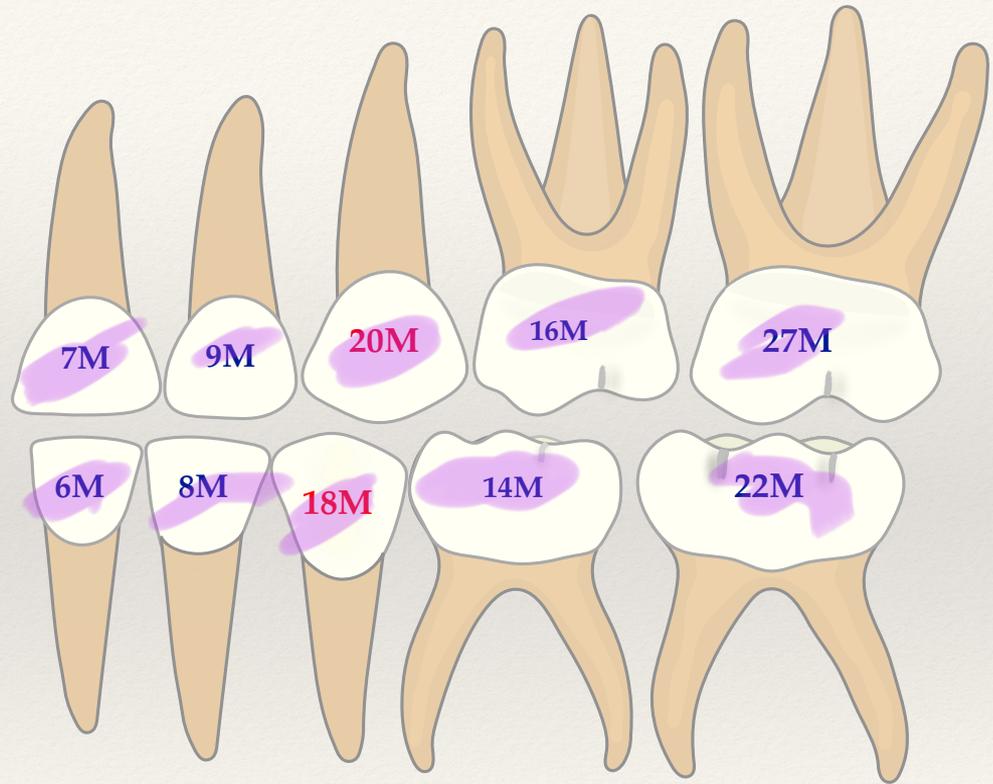
Sequence of eruption of deciduous teeth

1. Incisors

2. First Molars

3. Canine

4. Second Molars



Conclusions

في سنة يتطلع لفعل من الولادة يتكون enamel زيادة
و يشيخها التطور يكون مختلر
↓
* لأنه nervous system immature
الأقل من 6M

- Mandibular central incisor is the first deciduous tooth erupting in the oral cavity.
- First deciduous molar erupt before deciduous canine.
- Deciduous tooth begin to erupt after formation of a half of the root length. يكون نصف root
- Root complete its development after 1 : 1.5 years of tooth eruption.
- Root resorption of deciduous teeth begin 1 year before shedding.
- Mandibular teeth erupt earlier than the maxillary one.
- Girls teeth erupt earlier than the boys. البنات قبل الأولاد
والغالب قبل الفتيات
- Teeth in the left side of the oral cavity erupt earlier than the right side.

Question: 1

How old is this child ?



Two mandibular central deciduous incisors has been erupted in this child's mouth.

Therefore, this child is 6 months old.

Question: 2

How old is this child ?



This child is ? months old.

9/11

Question: 3

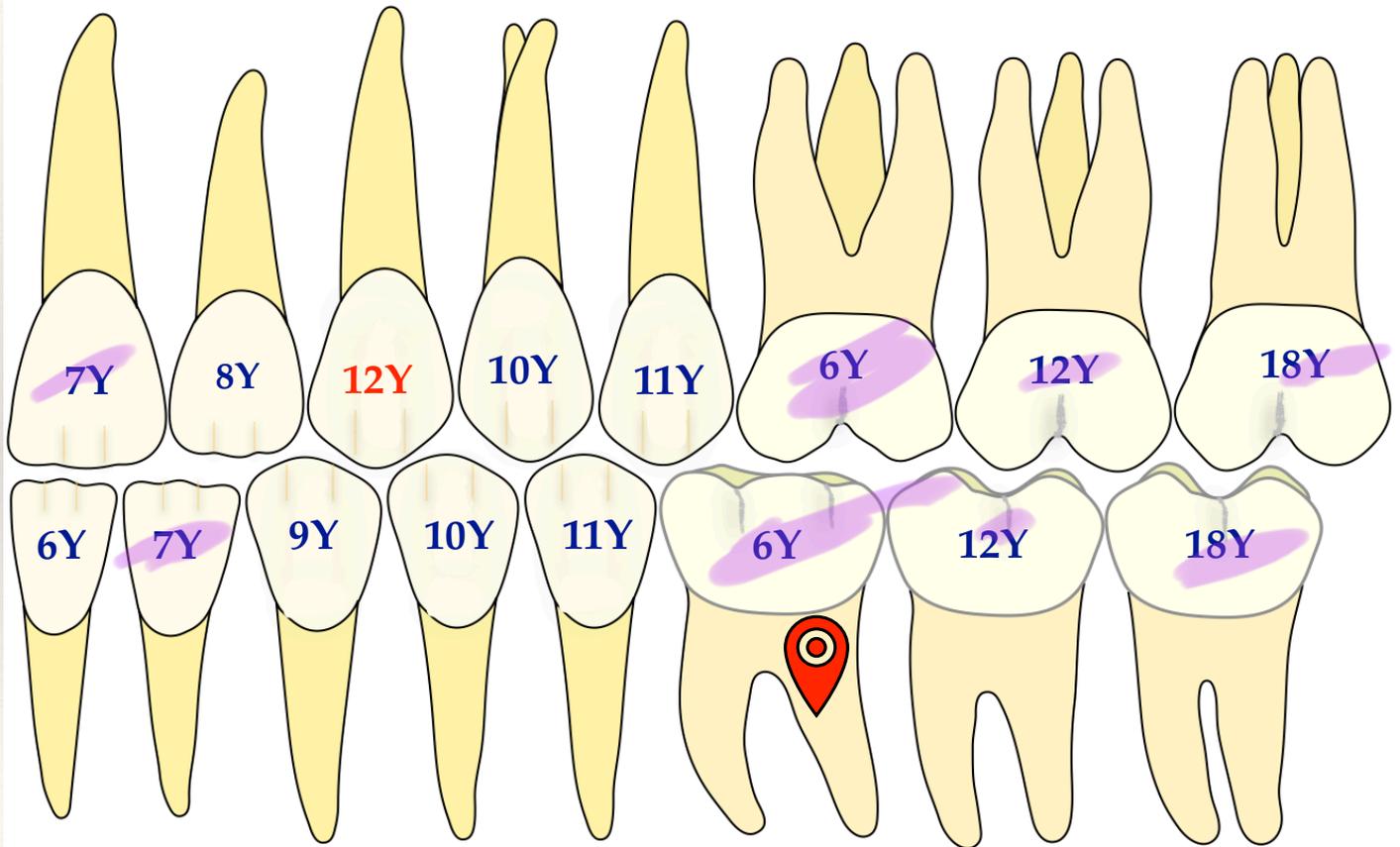
How old is this girl ?



ما بين 2 - 2.5
لانه لو اربع سنوات او 3 -
تمس الشيء كان

This child is ? months old.

Sequence of eruption of permanent Teeth



Conclusions

- First permanent molar is the first permanent tooth erupting in the oral cavity.
- First permanent molar erupt easily because it does not has deciduous predecessor.
- Permanent tooth begin to erupt after formation of a half of the root length.
- Root complete its development after 2.5:3 years of tooth eruption.



لو واحد عه ١٩ سنة كم عدد اسنانه ؟

$$20 + 8 = 28$$

لو

Question: 5

How many teeth are there in the mouth
of a 14-years old person?

28

?

Question: 6

How many and what types of teeth are in the mouth of a 10-years old person?

?

24 ست

18 Per
6 deciduous

Question: 7

What are the teeth that begin calcification during the fetus stage?

?

سؤال لتمر الجاي

Physiological Spaces in Deciduous Dentition

Leeway space

❖ **Definition:**

Leeway space is the space generated from the differences between the sum of mesiodistal width of deciduous molars in one quadrant and mesiodistal width of its successors.

❖ **Measurement:**

The sum of mesiodistal widths of the deciduous 1st and 2nd molars is greater than that of premolars, measure about 2.5 mm greater for mandibular quadrant and 1.5 mm greater for the maxillary one.

❖ **Function:**

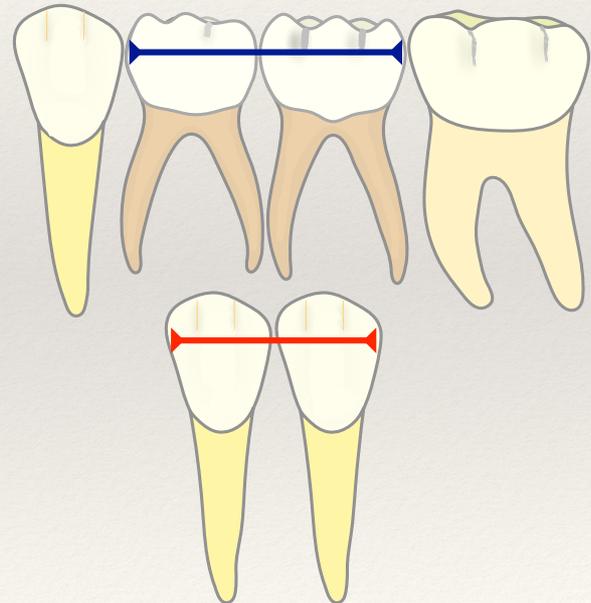
These spaces aid to relieve crowding in permanent anterior teeth during the development of normal occlusion.

❖ **When not needed:**

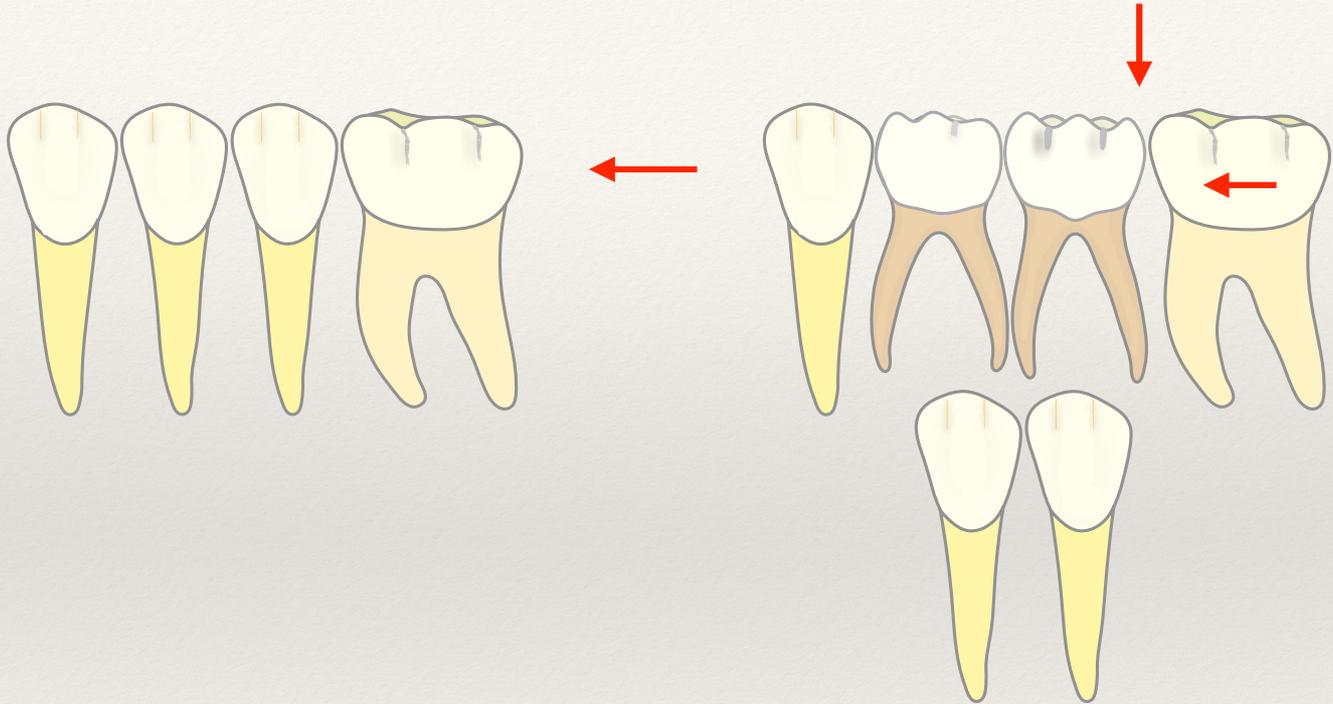
If normal occlusion does not need leeway space, the first permanent molar drift mesially to close this space.

Leeway space

2.5mm



Leeway space



Primate space

❖ Definition:

Primate space is the space resulted from jaw growth and generated between:

1. The maxillary deciduous lateral incisor and canine, and
2. The mandibular deciduous canine and first deciduous molar.

❖ Incidence:

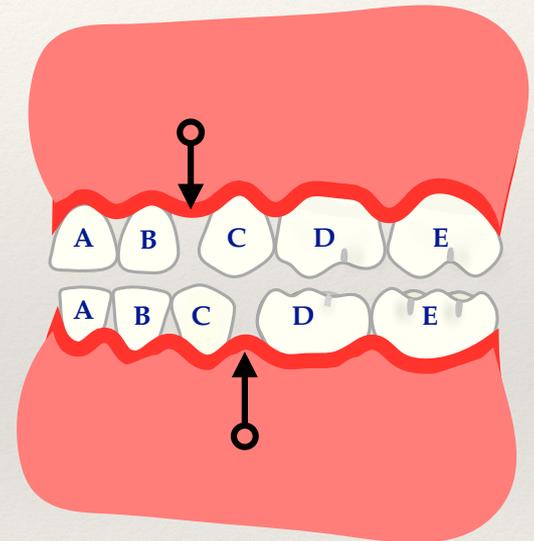
- It occur in about 70 % of the maxilla of the child.
- It occur in about 63 % of the mandible of the child.

❖ Functions:

1. Help in placement of permanent canine in normal class I occlusion.
2. Needed for development of offset relation between opposing teeth.

❖ It is termed primate space:

- primate space is similar to that spaces found in primate species with human similarity.



Primate Animal



Thank you my dear