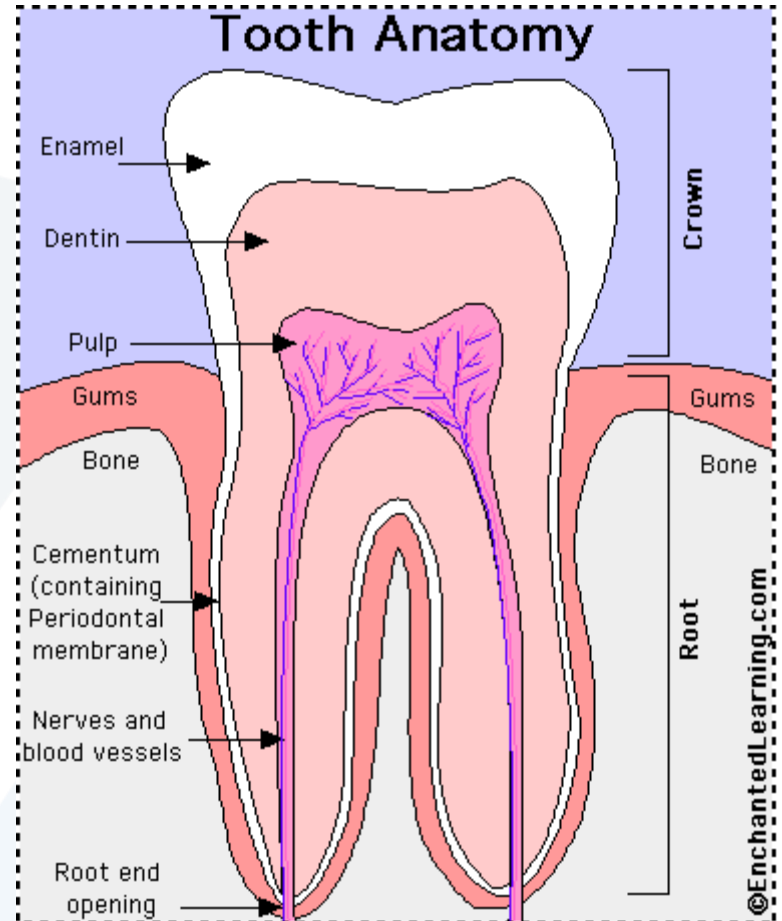
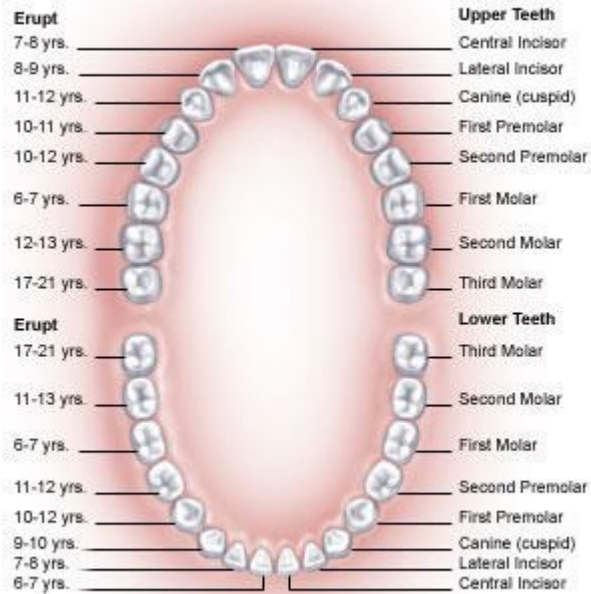















The Primary (Deciduous)Teeth

Tooth Development: Permanent Teeth



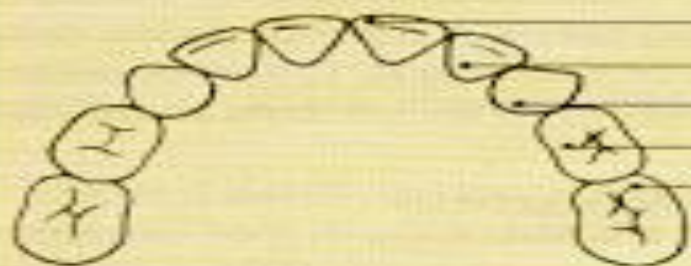
Tooth Arrival Chart

Use this chart to identify the number and location of teeth at a given age. Baby teeth are shaded in blue and permanent teeth are shown in white.

When?	How many?		Where?	
5-12 months	4 baby teeth	0 permanent teeth	 upper	 lower
8-13 months	6 baby teeth	0 permanent teeth	 upper	 lower
13-19 months	12 baby teeth	0 permanent teeth	 upper	 lower
16-23 months	16 baby teeth	0 permanent teeth	 upper	 lower
2-3 1/2 years	20 baby teeth	0 permanent teeth	 upper	 lower
6-7 years	20 baby teeth	4 permanent teeth	 upper	 lower
6-8 years	16 baby teeth	8 permanent teeth	 upper	 lower

about	Primary tooth	Permanent tooth
number	20 tooth	36 tooth
types	I 2/2 C1/1 M2/2	I2/2 C1/1 P2/2 M3/3
eruption	Start at 6 month	Start at 6 year
size	Smaller than permanent tooth	Bigger than primary
jaw	smaller	bigger
crown	it is wider	It is narrower

Primary Teeth



Upper Teeth

Central incisor

Lateral incisor

Canine (cuspid)

First molar

Second molar

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.



Lower Teeth

Second molar

First molar

Canine (cuspid)

Lateral incisor

Central incisor

Erupt

23-31 mos.

14-18 mos.

17-23 mos.

10-16 mos.

6-10 mos.

Shed

10-12 yrs.

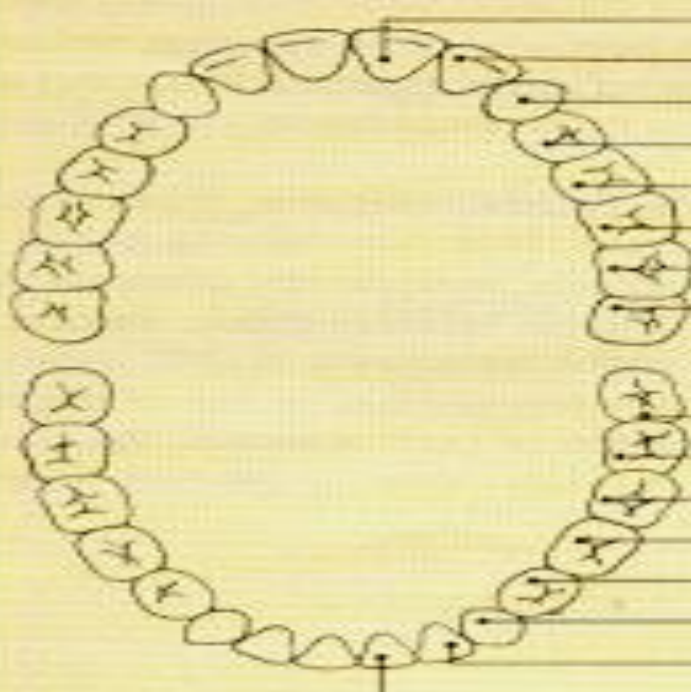
9-11 yrs.

9-12 yrs.

7-8 yrs.

6-7 yrs.

Permanent Teeth



Upper Teeth

Central incisor

Lateral incisor

Canine (cuspid)

First premolar (first bicuspid)

Second premolar (second bicuspid)

First molar

Second molar

Third molar (wisdom tooth)

Erupt

7-8 yrs.

8-9 yrs.

11-12 yrs.

10-11 yrs.

10-12 yrs.

6-7 yrs.

12-13 yrs.

17-21 yrs.

Lower Teeth

Third molar (wisdom tooth)

Second molar

First molar

Second premolar (second bicuspid)

First premolar (first bicuspid)

Canine (cuspid)

Lateral incisor

Erupt

17-21 yrs.

11-13 yrs.

6-7 yrs.

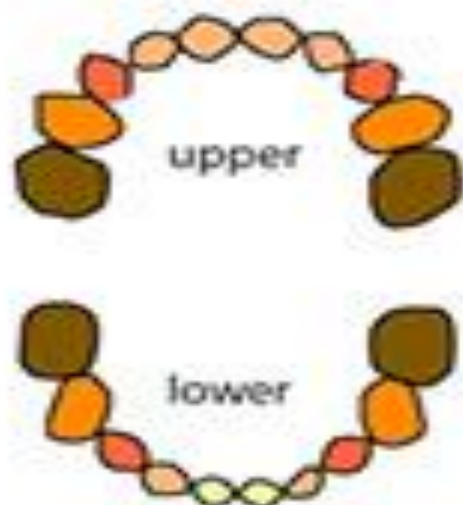
11-12 yrs.

10-12 yrs.

9-10 yrs.

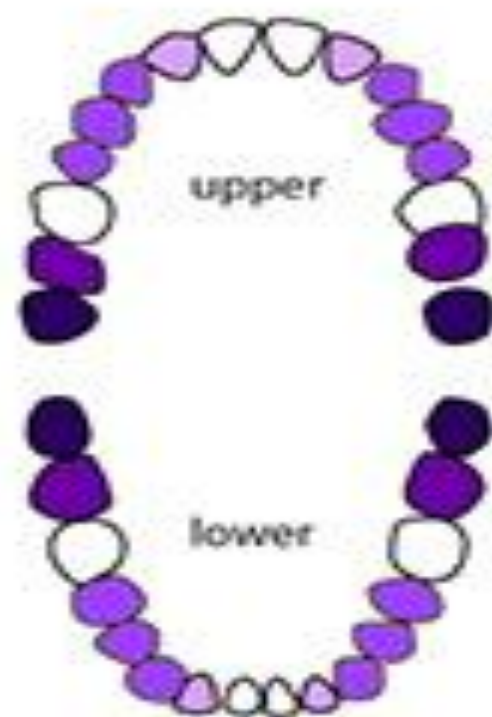
7-8 yrs.

Tooth Development Chart



6-10 months
8-13 months

10-12 months
12-16 months
23-33 months

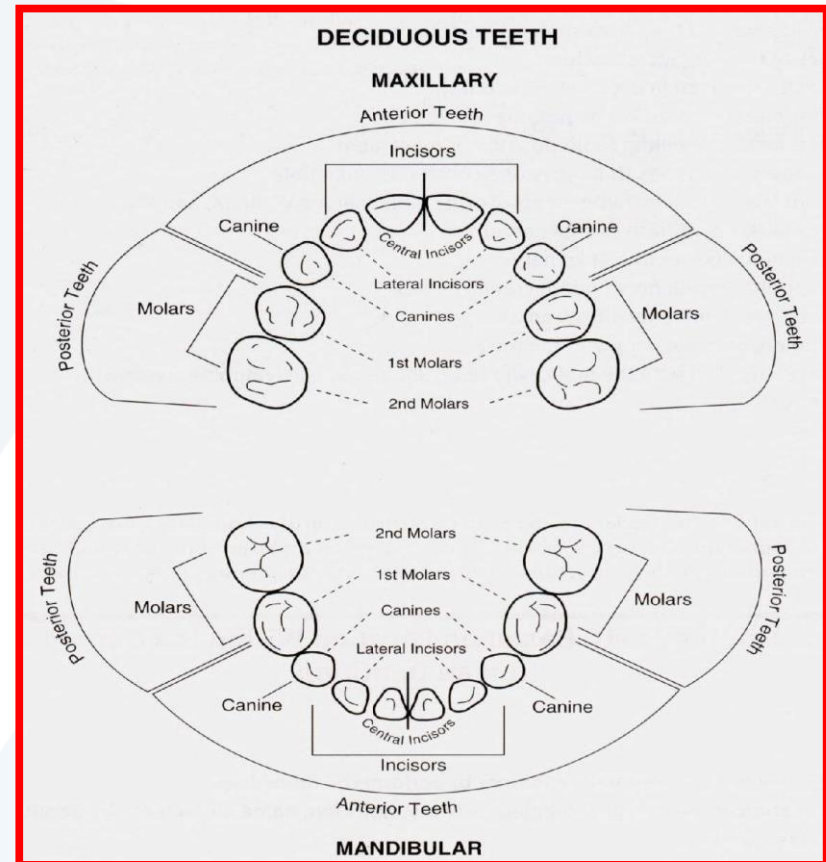


6-8 years
7-9 years

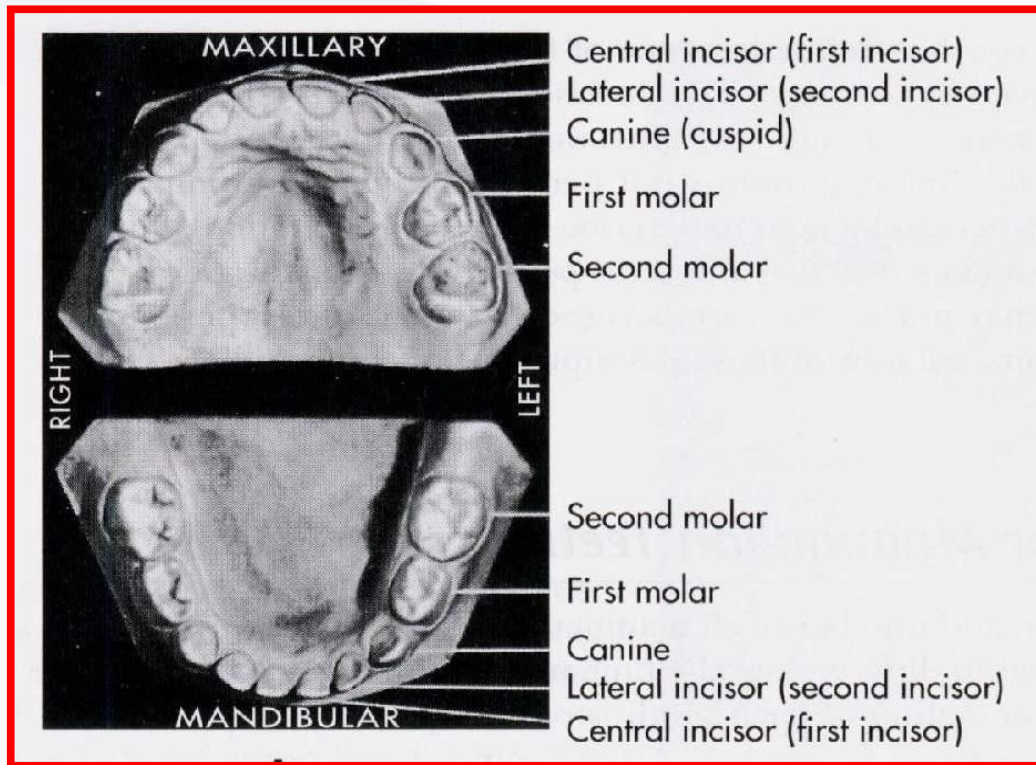
9-12 years
11-13 years
17-21 years

The Complete Primary Dentition

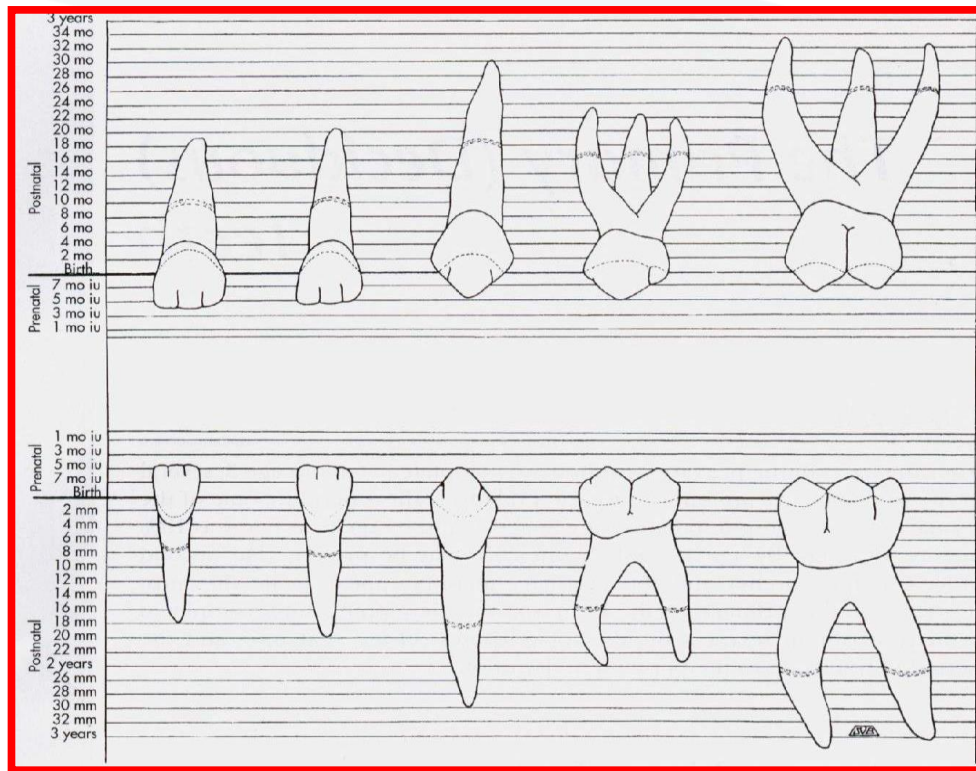
It is normally present in a child from the ages of about two to six years old . There are 20 teeth in the entire primary dentition(ten in the maxillary arch and ten in the mandibular arch) .



The Complete Primary Dentition



Diagrammatic representation of the chronology of the primary teeth .Eruption is completed at the approximate time indicated by the dotted area on the roots of the teeth



Major Contrasts between Primary and Permanent Teeth

- The Crown of primary anterior teeth are wider mesiodistally in comparison with their crown length than are the permanent teeth.**
- The roots in primary teeth are narrower and longer comparatively.**
- Deciduous teeth are smaller and fewer in number than permanent teeth .**
- The roots in primary molars are longer and more slender and flare more ,extending out beyond projected outlines of the crowns, allowing more room between the roots for the development of permanent tooth crown.**

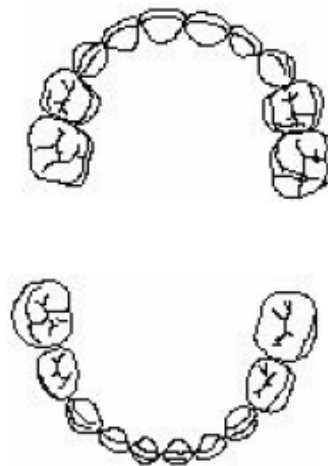
Major Contrasts between Primary and Permanent Teeth

- The cervical ridges of enamel of the anterior teeth are more prominent.**
- The crowns and roots of primary molars at their cervical portions are more slender mesiodistally.**
- The cervical ridges buccally on the primary molars are much more pronounced .**
- The primary teeth are usually less pigmented and are whiter in appearance than permanent teeth**

Differences in Dentitions

Deciduous dentition

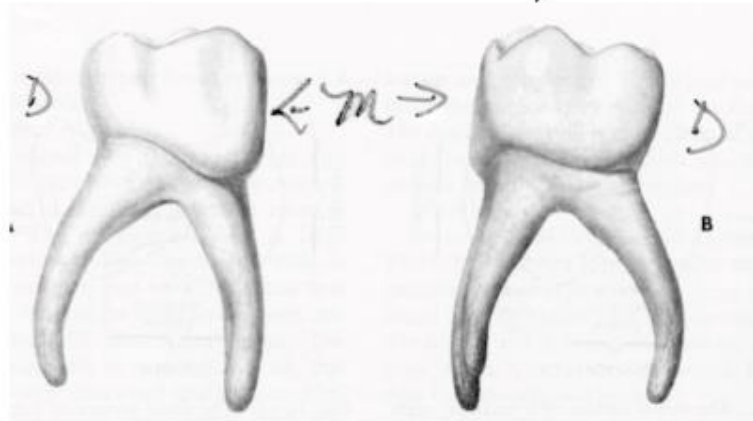
- Whiter in color
- Large pulp
- Dentin is thin
- Enamel is thin



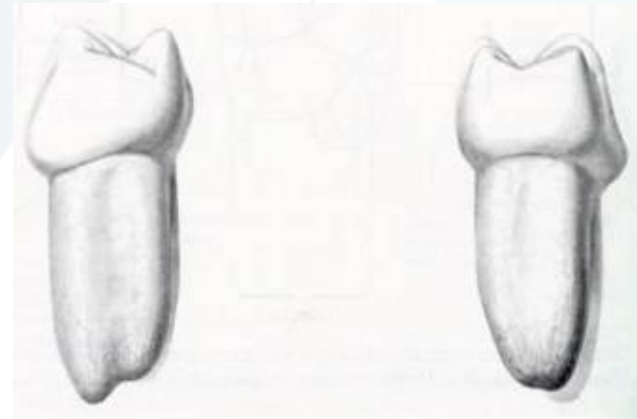
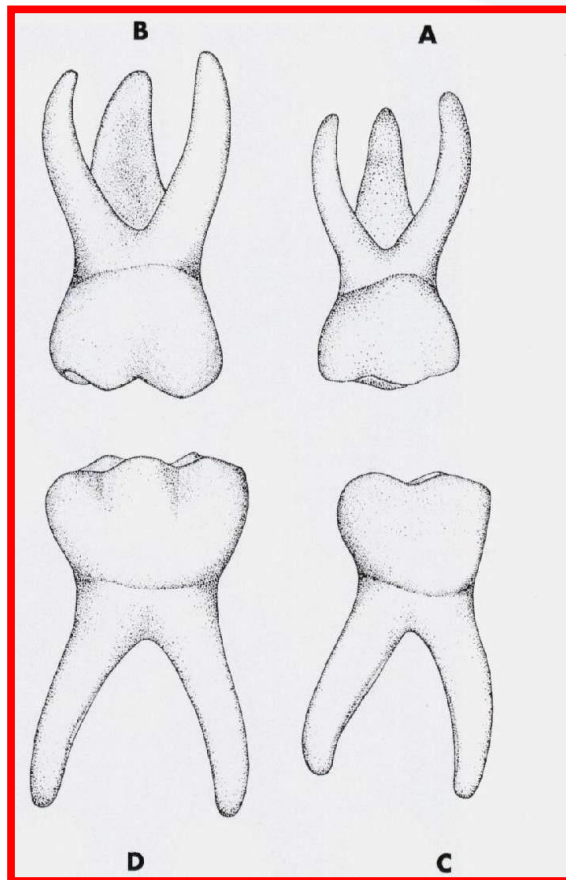
Importance of Deciduous teeth

-
- Cannot be stressed enough!
 - Proper development of the muscles of mastication
 - Speech
 - Formation of bones and jaw
 - Alignment of teeth

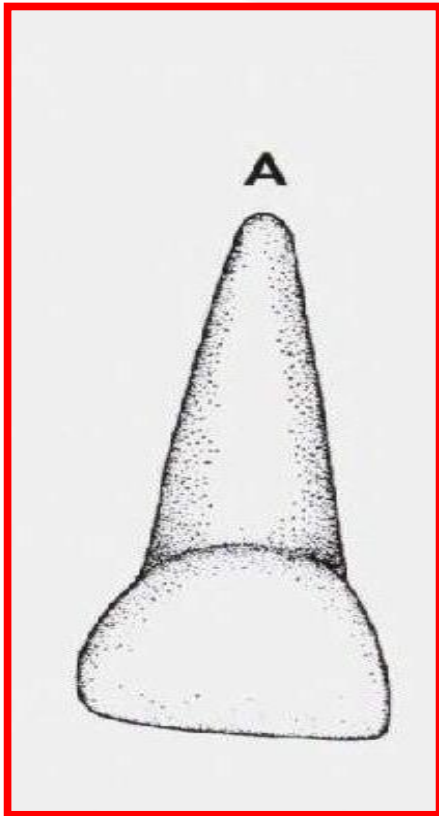
Mesiolingual
cusp



The roots in primary molars accordingly are longer and more slender and flare more ,extending out beyond projected outlines of the crowns, allowing more room between the roots for the development of permanent tooth crown.



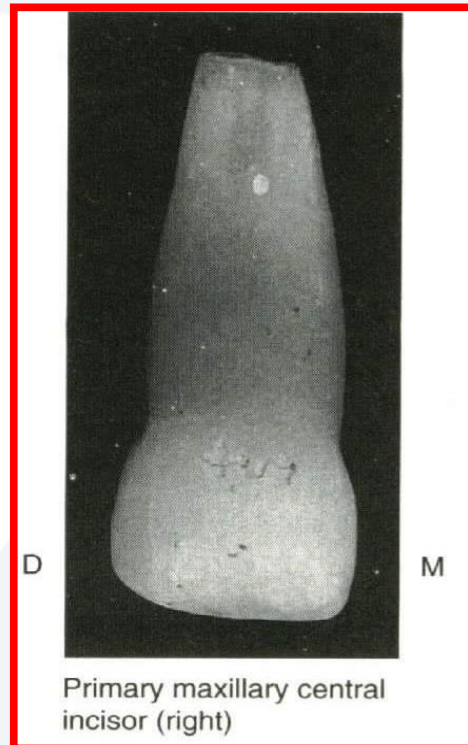
Primary Maxillary central Incisor



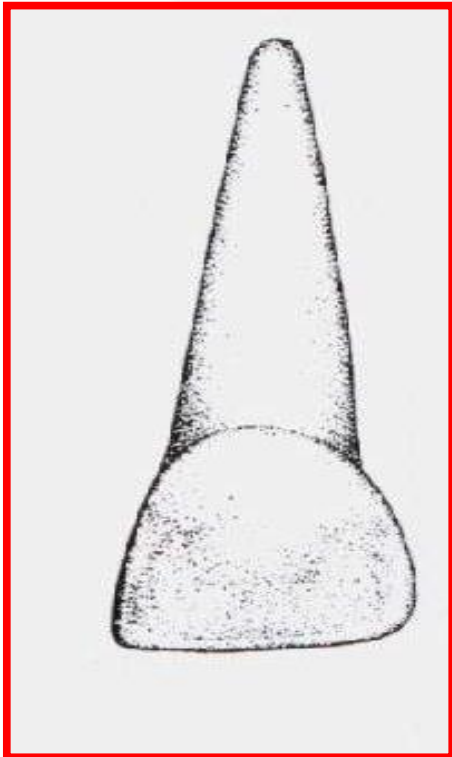
Labial Aspect : The mesiodistal diameter is greater than the cervicoincisal length, the labial surface is very smooth, and the incisal edge is nearly straight . the root is cone-shaped with even tapered sides .The root length is greater in comparison to crown length than that of permanent central incisor .

Primary Maxillary Central Incisor :

The crown is short and wide ,there has been some resorption of root tips ,but even so the roots are twice as long as the crowns.

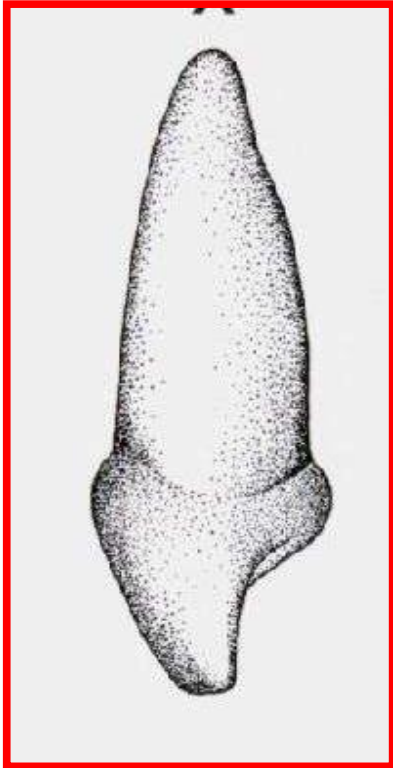


Primary Maxillary Central Incisor



Lingual Aspect of the crown shows well-developed marginal ridges and highly developed cingulum ,dividing the concavity on the lingual surface below the incisal edge into a mesial and distal fossa. The root narrows lingually and presents a ridge for its full length in comparison with a flatter surface labially .

Primary Maxillary Central Incisor



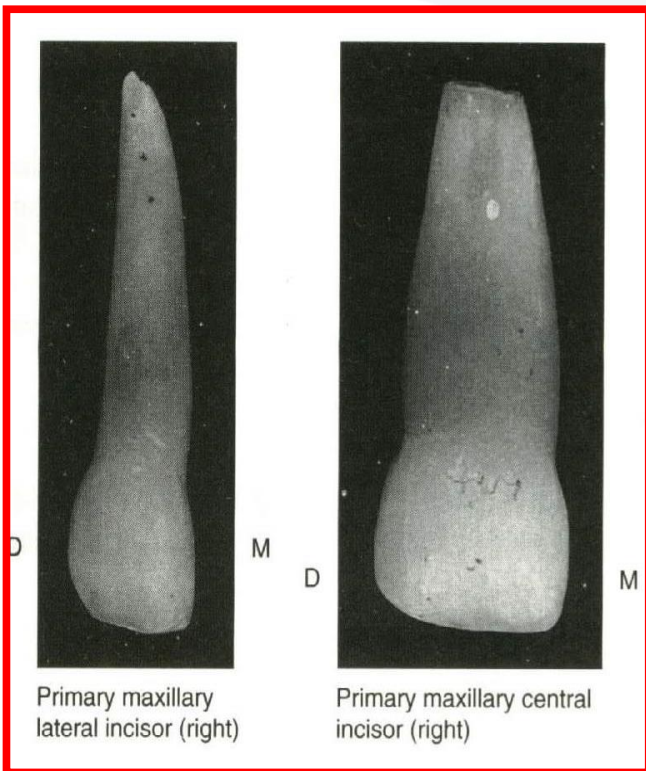
Mesial and distal aspect: these two aspects are similar. The crown at the cervical third is wide in relation to its total length. the crown appears thick at the middle third The cementoenamel junction is distinct curving to the incisal ridge. the root from this aspect looks more blunt .The mesial surface of the root have a developmental groove or concavity ,whereas distally ,the surface is generally convex .

Primary Maxillary Central Incisor



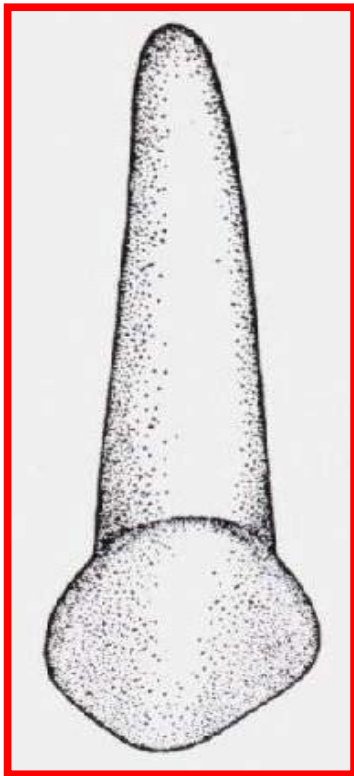
Incisal aspect :the incisal edge is centered over the main bulk of the crown and is relatively straight. looking down on the incisal edge ,the labial surface is much border and also smoother than the lingual surface. The lingual surface tapered toward the cingulum.

Primary Maxillary Lateral Incisor



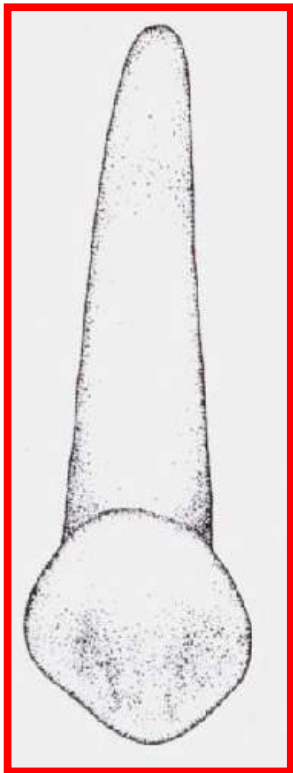
It is similar to the central incisor from all aspects ,but its dimensions differ. the crown is smaller in all directions, the cervicoincisal of the lateral crown is greater than its mesiodistal width ,the distoincisoral angles of the crown are more rounded than those of the central incisor. The root has a similar shape, but it is longer in proportion to its crown.

Primary Maxillary Canine



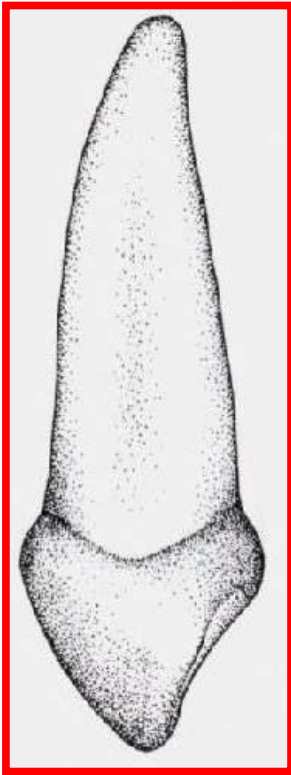
Labial aspect: the crown is constricted at the cervix in relation to its mesiodistal width, and the mesial and the distal surfaces are more convex. instead of an incisal edge that is relatively straight ,it has a long ,well developed sharp cusp . this cusp is much longer and sharper compared with that of permanent canine .the root is long ,slender ,and tapering and more than twice the crown length.

Primary Maxillary Canine



Lingual aspect: It shows a pronounced enamel ridges that merge with each other ,they are the cingulum , mesial and distal marginal ridges, and incisal cusp ridges . The lingual ridge divides the lingual surface into shallow mesiolingual and distolingual fossae .the root tapers lingually .it is usually inclined distally also above the middle third .

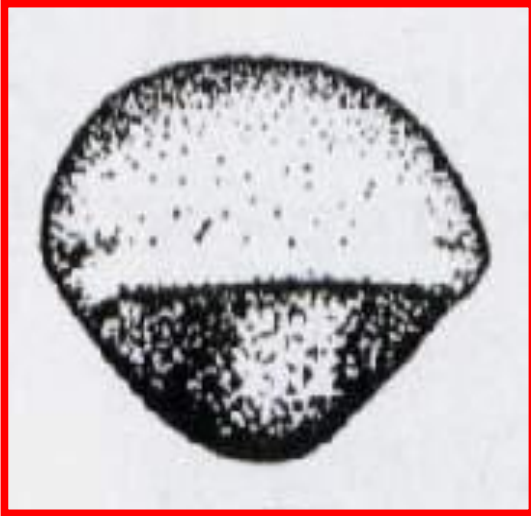
Primary Maxillary Canine



Mesial aspect :the mesial outline is similar to that of lateral and central incisors , but the measurement labiolingually at the cervical third is much greater

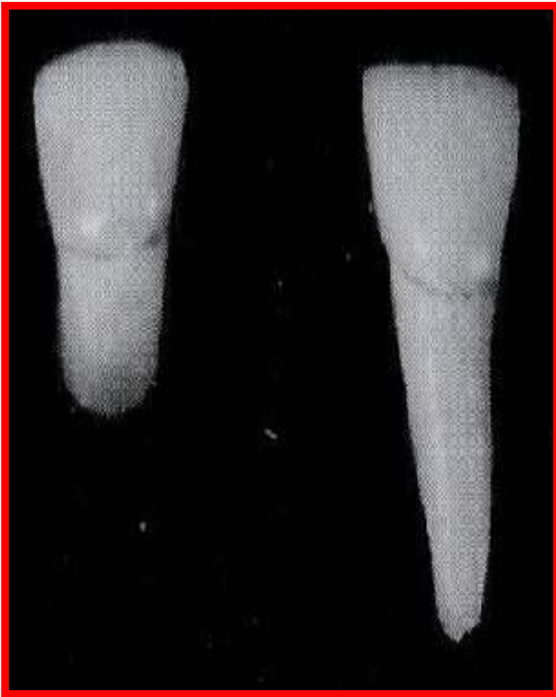
distal aspect :the distal outline is the reverse of the mesial aspect. No outstanding differences may be noted except that the curvature of the cervical line toward the cusp ridge is less than the mesial surface .

Primary Maxillary Canine



**Incisal aspect :we observe that the crown is essentially diamond-shaped .
The tip of the cusp is distal to the center of the crown , and the mesial cusp slope is longer than the distal cusp slope .**

Primary Mandibular Central Incisor

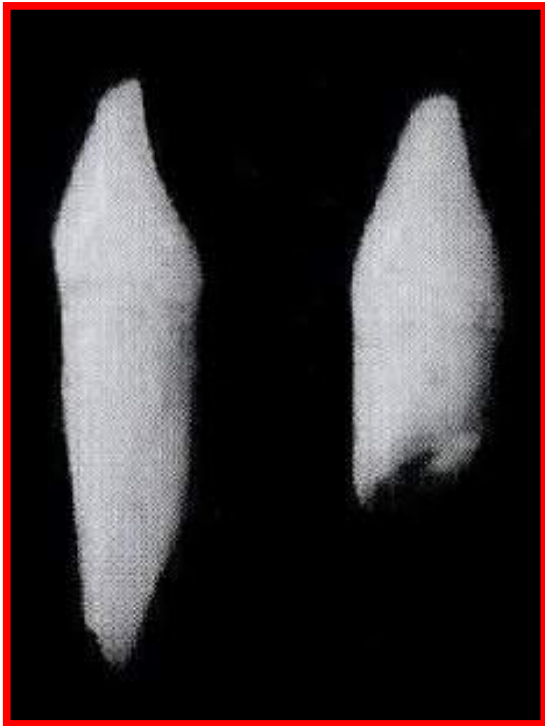


labial aspect :It has a flat face with no developmental grooves .the mesial and distal sides tapered evenly from the contact areas . the crown is wide in proportion to its length in comparison of its permanent successor . The heavy look at the root trunk makes this small tooth resemble the permanent maxillary lateral incisor. the root is twice the length of the crown.

Primary Mandibular Central Incisor

Lingual aspect :the lingual surface of the crown at the middle third and incisal third may have a flattened surface level with marginal ridges , or may present a slight concavity ,called lingual fossa.

Primary Mandibular Central Incisor



The mesial aspect :It shows the typical outline of an incisor tooth even though the measurements are small.

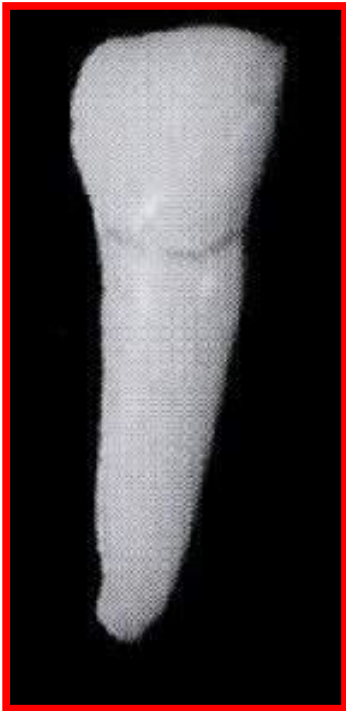
Distal aspect: the outline from this aspect is the reverse of that found from the mesial aspect.

Primary Mandibular Central Incisor



The incisal aspect :the incisal ridge is straight . A definite taper is evident toward the cingulum on the lingual side. the labial surface from this view presents a flat surface slightly convex, whereas the lingual surface presents a flattened surface slightly concave.

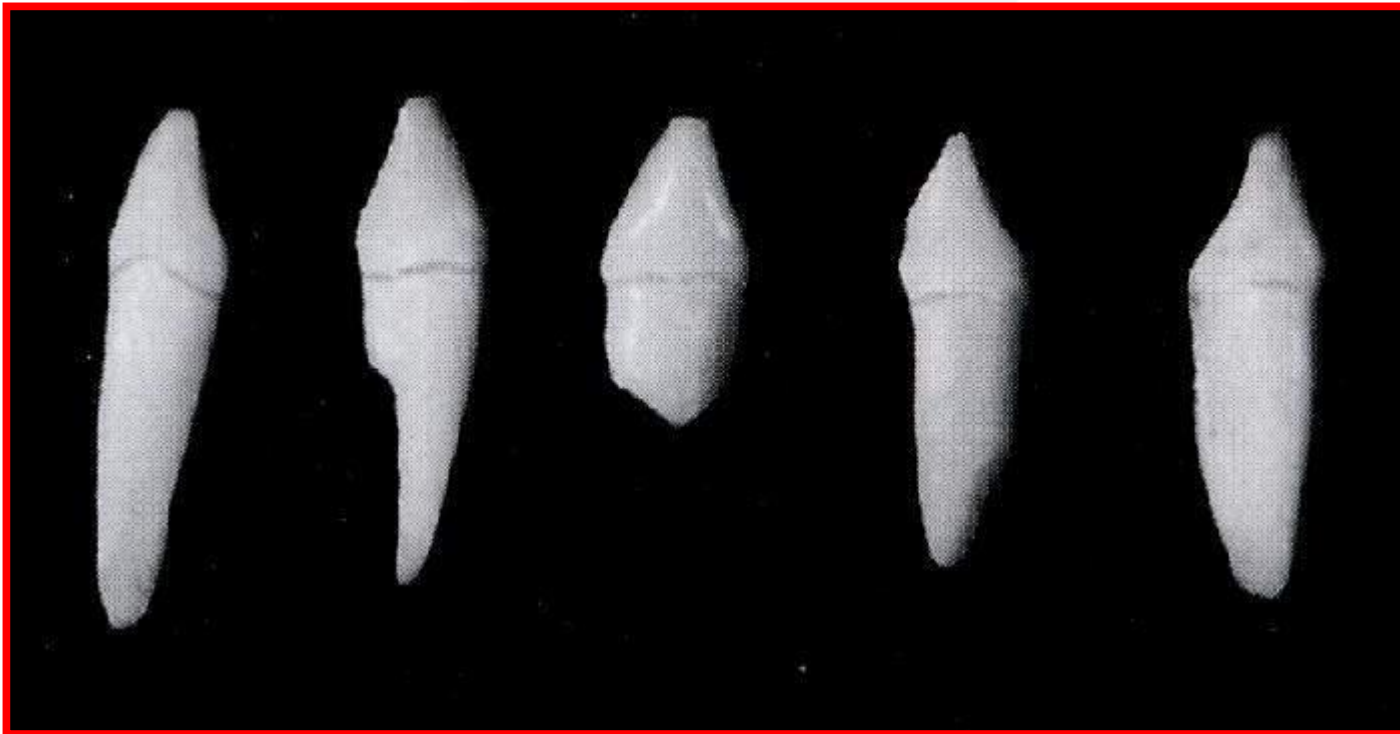
Primary Mandibular Lateral Incisor:



Labial aspect

The fundamental outlines of the this tooth are similar to those of the primary central incisor .These two teeth support each other in function. The lateral incisor is somewhat larger in all measurements except labiolingually, where the two teeth are identical.

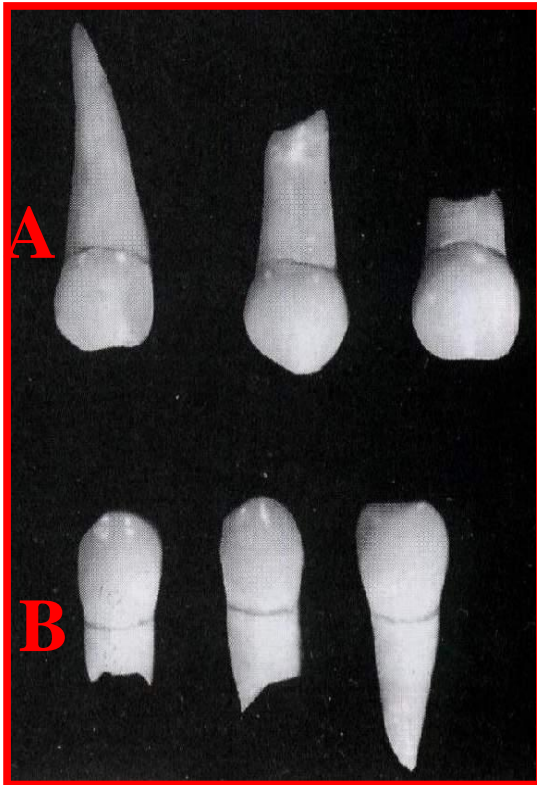
Primary Mandibular Lateral Incisor: mesial aspect



Primary Mandibular Lateral Incisor: Incisal aspect



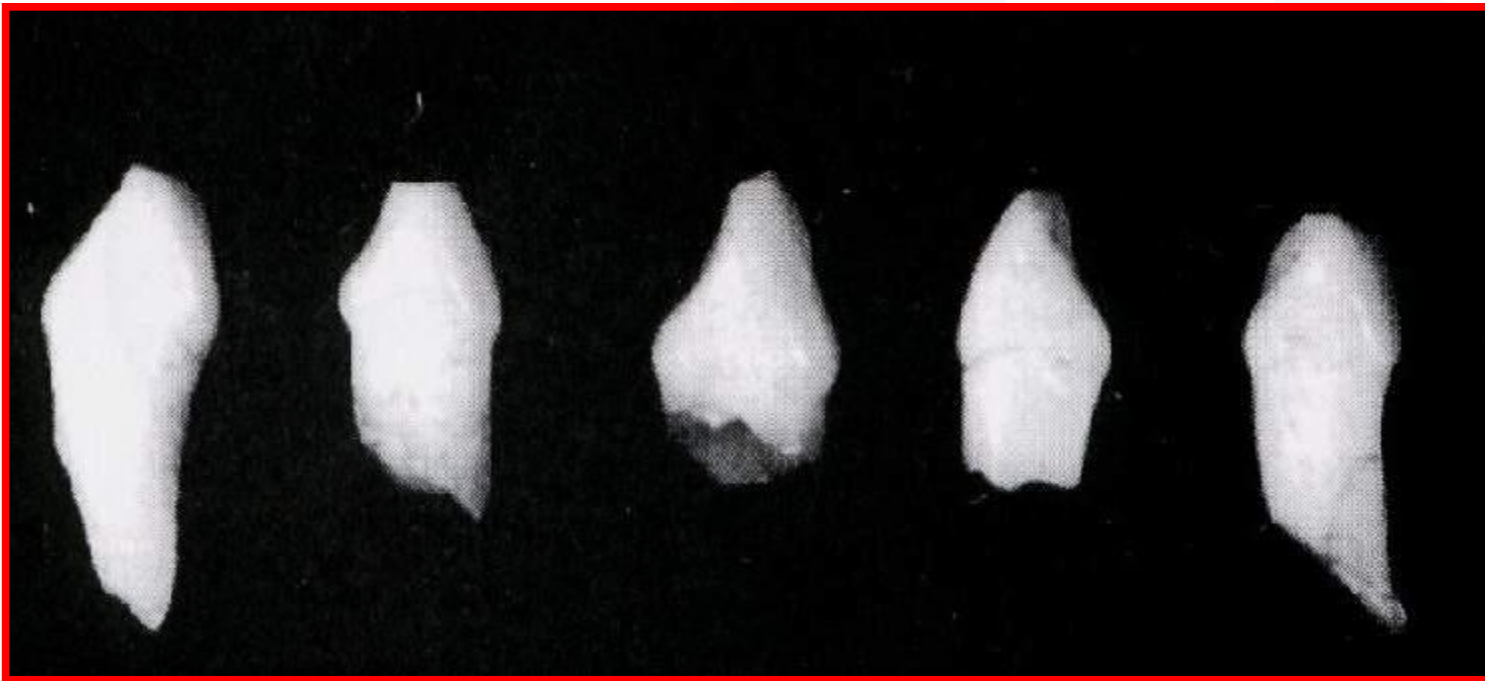
Primary Mandibular Canine: Labial aspect



The difference between the maxillary (A) and mandibular canine (B) is mainly in dimensions the crown is perhaps 0.5 mm shorter, and the root is at least 2mm shorter .the deciduous maxillary canine is much larger labiolingually .The distal cusp slope is longer than the mesial slope. The opposite arrangement is true for the maxillary canine.

Primary Mandibular Canine

Mesial aspect:



Primary Mandibular Canine Incisal aspect:



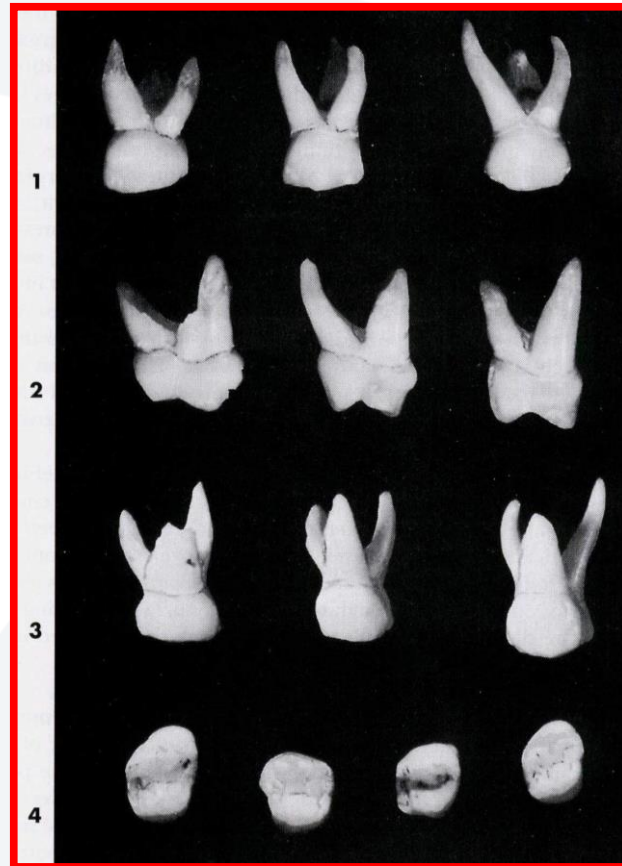
Primary Maxillary First Molar :

Buccal aspect

Mesial aspect

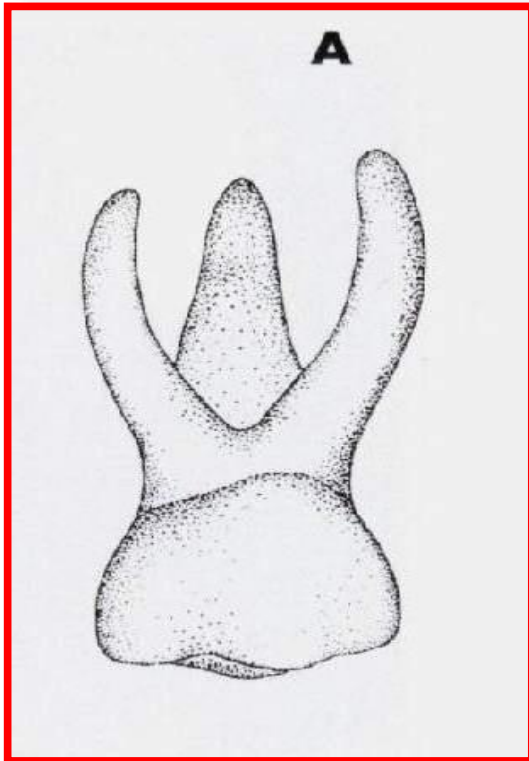
Lingual aspect

Occlusal aspect



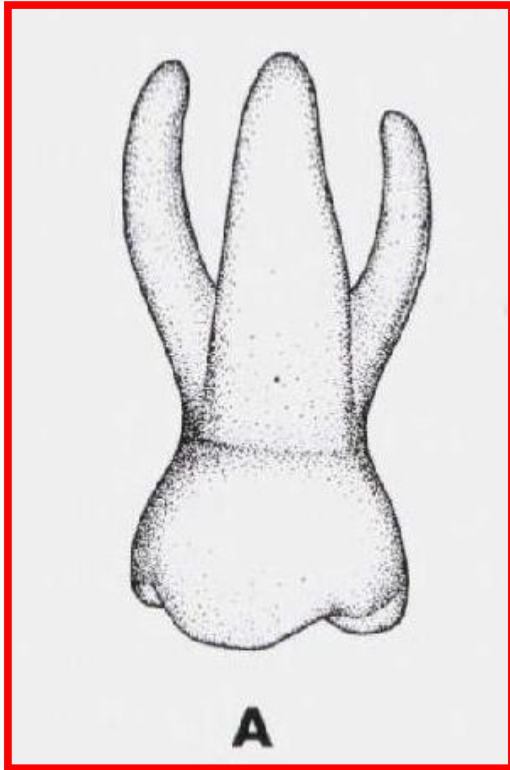
Primary Maxillary First Molar :

Buccal Aspect



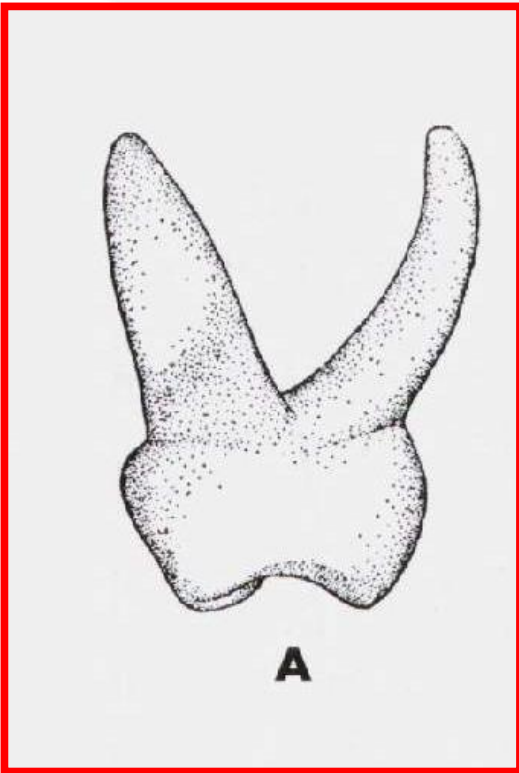
The widest measurement of the crown is at the contact areas mesially and distally ,from these points the crown converges toward the cervix .the buccal surface is smooth , and little evidence shows developmental grooves .It is much smaller than the second molar .the roots are slender and long , and they spread widely.

Primary Maxillary First Molar : Lingual Aspect



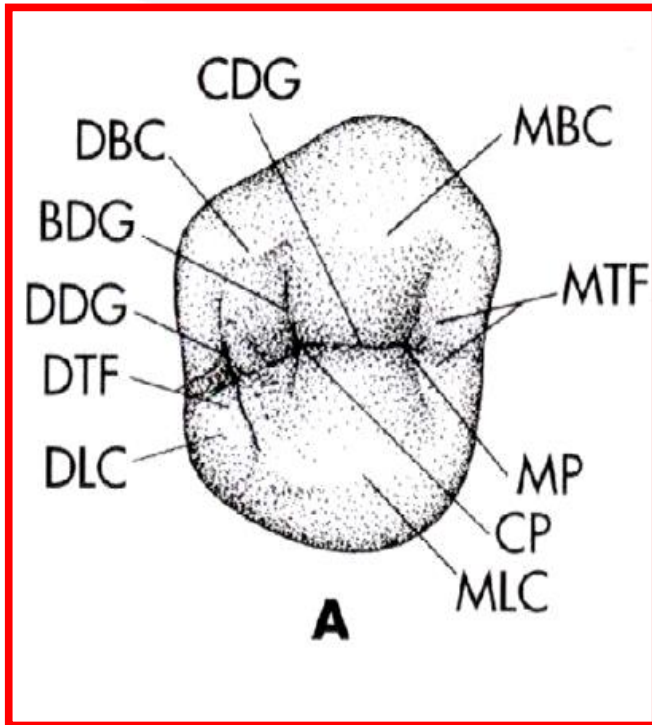
The mesiolingual cusp is the prominent cusp on this tooth ,It is the longest and the sharpest cusp ,the distolingual cusp is poorly defined ,it is small and rounded when it exists at all .from this aspect the distobuccal cusp may be seen since it is longer the distolingual cusp. The lingual root is larger than the two other roots.

Primary Maxillary First Molar : Mesial Aspect



Mesial aspect: The mesiolingual cusp is the longer and sharper than the mesiobuccal cusp. A pronounced convexity is evident on buccal outline on the cervical third. The mesiobuccal and lingual roots are visible only when looking at the mesial side. The lingual root looks long and slender and extends lingually.

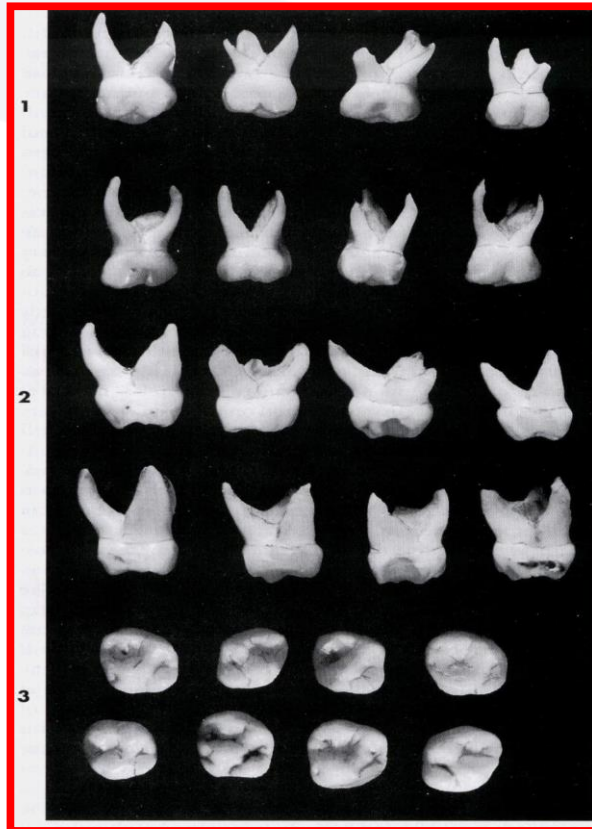
Primary Maxillary First Molar : Occlusal Aspect



MTF: Mesial triangular fossa, MP: mesial pit, CP: Central pit, MLC: mesiolingual cusp ;DLC: distolingual cusp; DTF: Distal triangular fossa, DDG: distal development groove ;BDG: buccal development groove ;DBC: distobuccal cusp; CDG: central development groove .

Primary maxillary second molar .

Buccal aspect

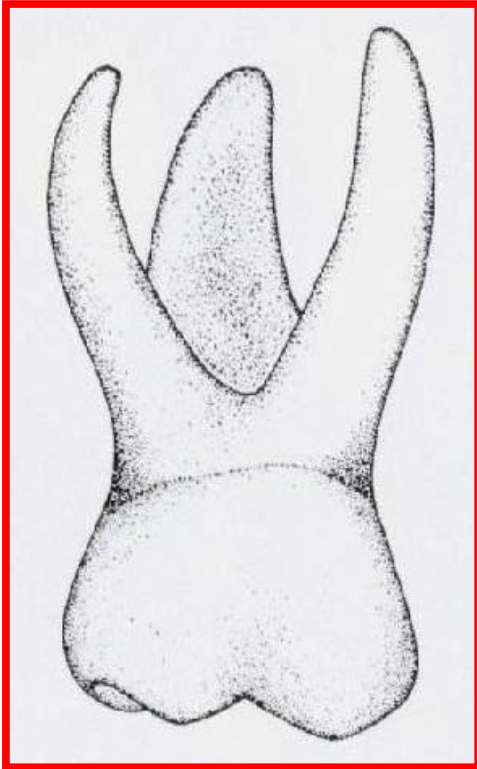


Mesial aspect

Occlusal aspect

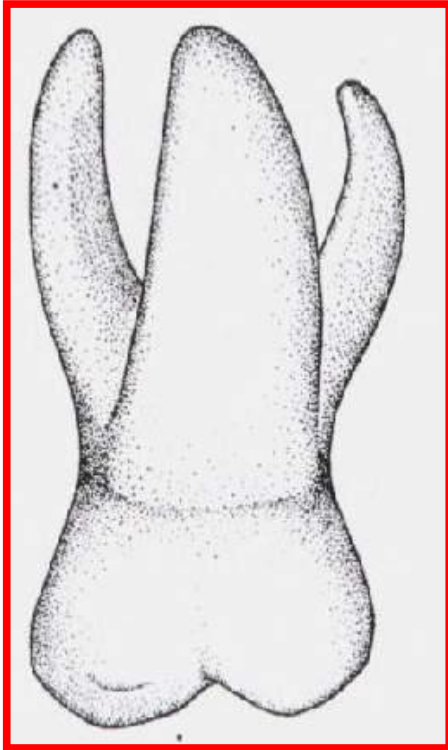
The Primary maxillary second molar has characteristics resembling the permanent maxillary first molar

Primary Maxillary Second Molar : Buccal Aspect



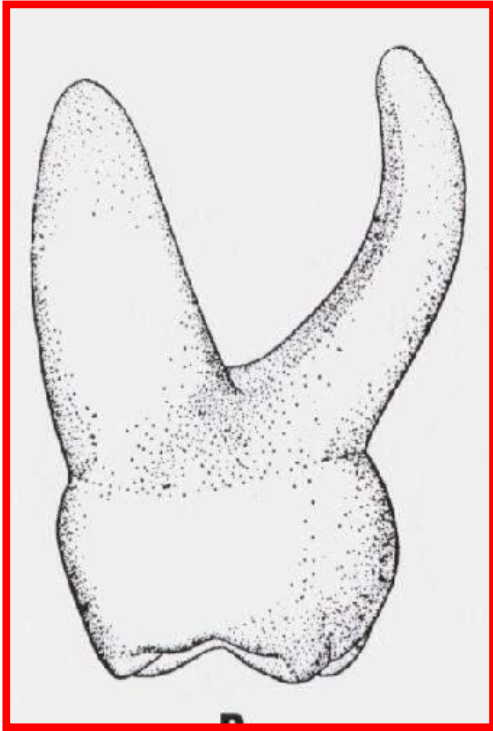
It has characteristics resembling the permanent maxillary first molar ,but it is smaller. the buccal view shows two well-defined buccal cusps with a buccal development groove between them .the crown is much larger than that of the first primary molar. The roots appear slender ,and they much longer than those of maxillary first molar.

Primary Maxillary Second Molar : Lingual Aspect



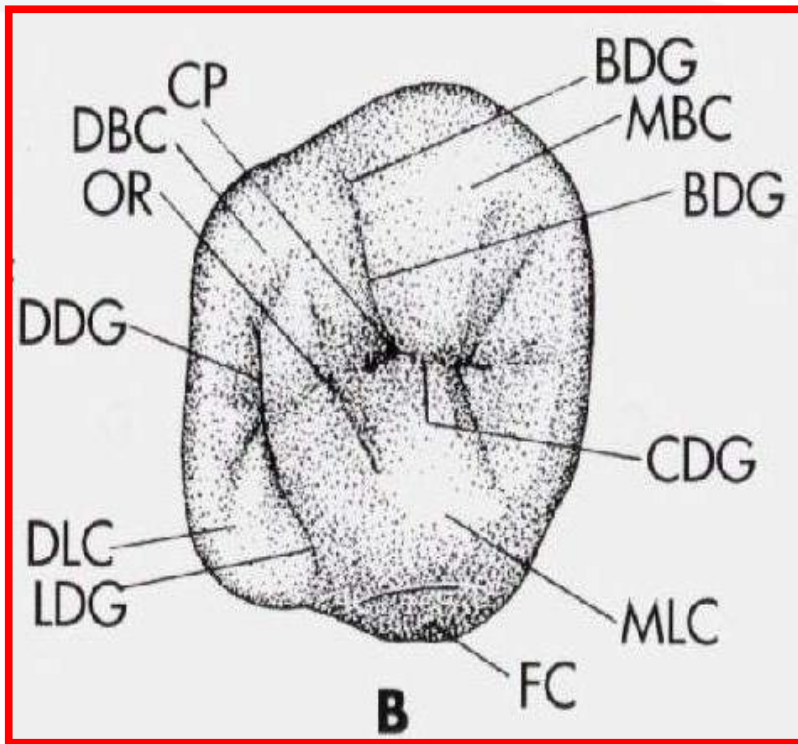
The crown shows the following three cusps:
-The mesiolingual cusp which is large and well-developed
2-The distolingual cusp
3-A third supplemental cusp, and sometimes called the tubercle of Carabelli, or the fifth cusp.
A well-defined developmental groove separates the mesiolingual cusp from the distolingual cusp.
All three roots are visible from this aspect.

Primary Maxillary Second Molar : Mesial Aspect



The crown appears short because of its width buccolingually . The mesiobuccal cusp with its supplementary fifth cusp appears large in comparison with the mesiolingual cusp. The mesiobuccal root looks board and flat. The lingual root has somewhat the same curvature as the lingual root of the maxillary first deciduous molar.

Primary Maxillary Second Molar : Occlusal Aspect



BDG: Distobuccal cusp.

MBC: Mesiobuccal cusp.

BDG: Buccal development groove.

CDG: Central development groove.

MLC: Mesiolingual cusp. FC: Fifth

cusp. LDG: Lingual development

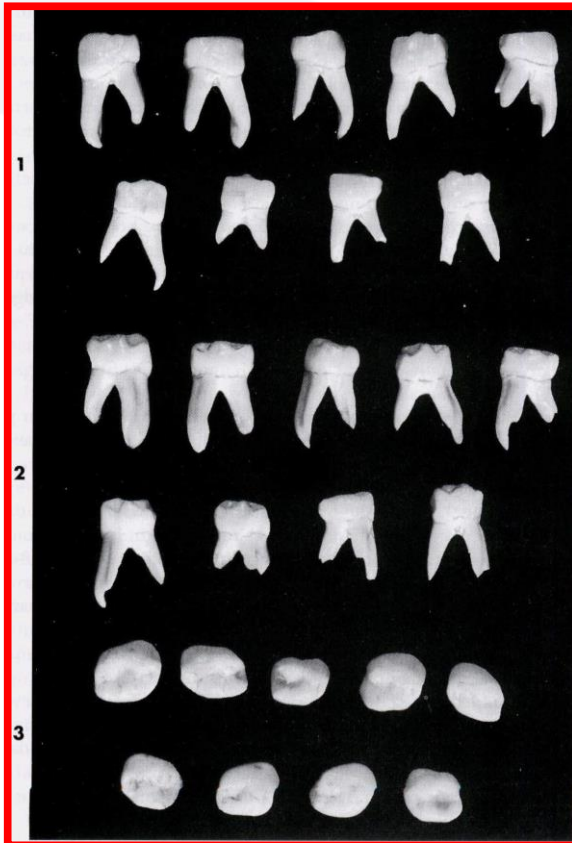
groove. DLC: distolingual cusp. DDG

:Distal development groove .OR:

Oblique ridge. CP: Central pit

Primary Mandibular First Molar :

Buccal aspect



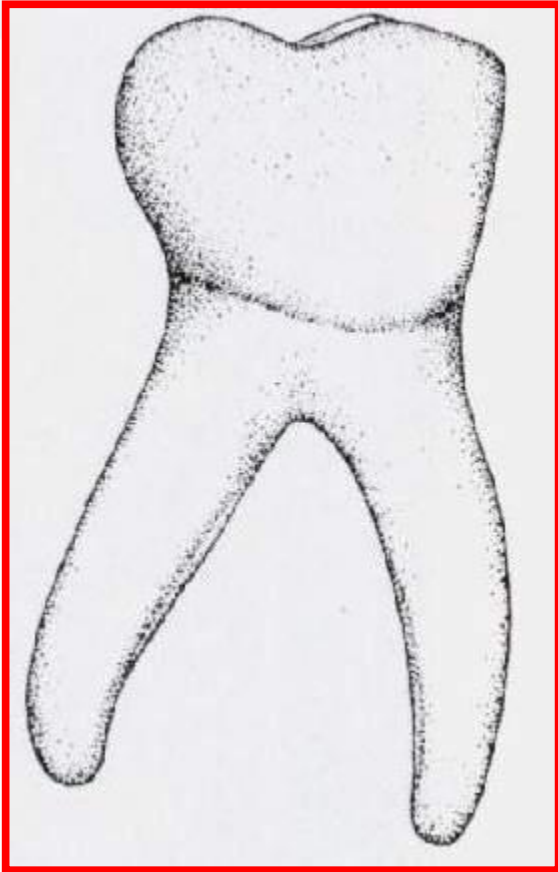
Lingual aspect

This tooth has characteristics unlikely to any other tooth in the mouth

Occlusal aspect

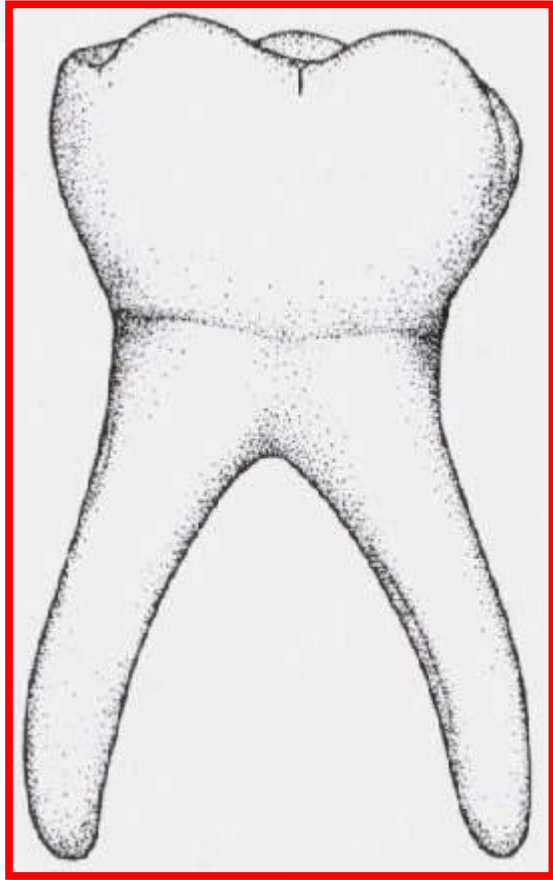
Primary Mandibular First Molar :

Buccal Aspect



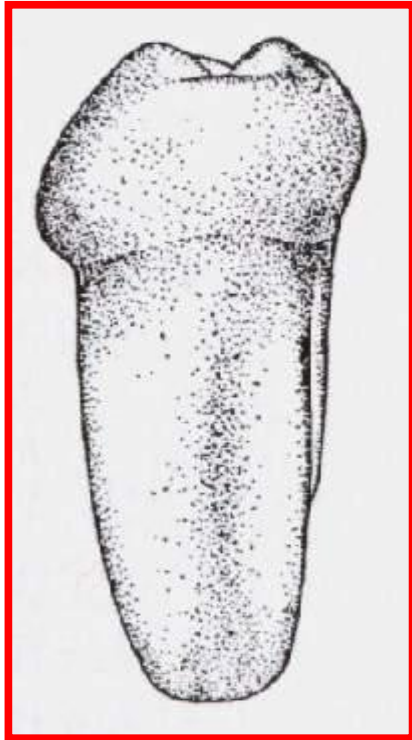
From this aspect the mesial outline is almost straight, the distal outline converges toward the cervix, and the distal portion of the crown is shorter than the mesial portion. The two buccal cusps are distinct, although no development groove is evident between them. The root are long and slender ,and they spread greatly at the apical third .

Primary Mandibular First Molar : **Lingual Aspect**



The distobuccal cusp is rounded .the mesiobuccal cusp is long and sharp at the tip .the mesial marginal ridge is so well-developed that it might almost be considered an other small cusp lingually. The cervical line is straighter than that of the mesial aspect.

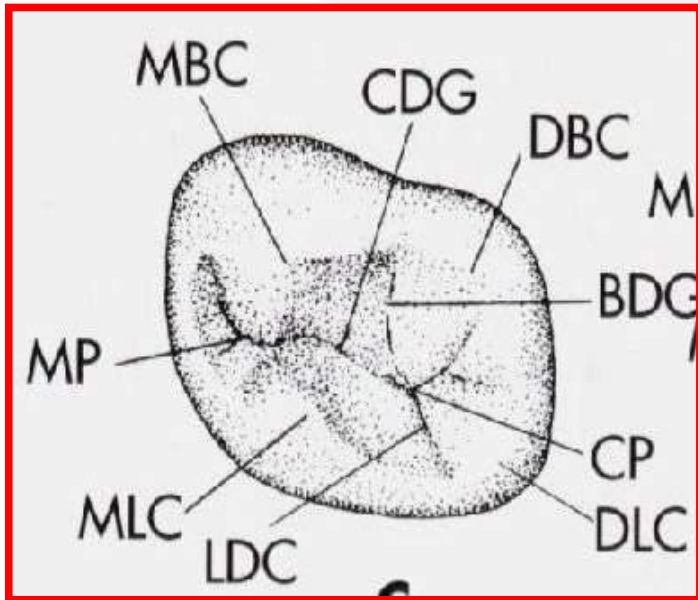
Primary Mandibular First Molar : Mesial Aspect



The dimension at the cervical third is greater than the dimension at the occlusal third.

The distobuccal root is hidden behind the mesiobuccal root .The mesiobuccal root looks long and slender.

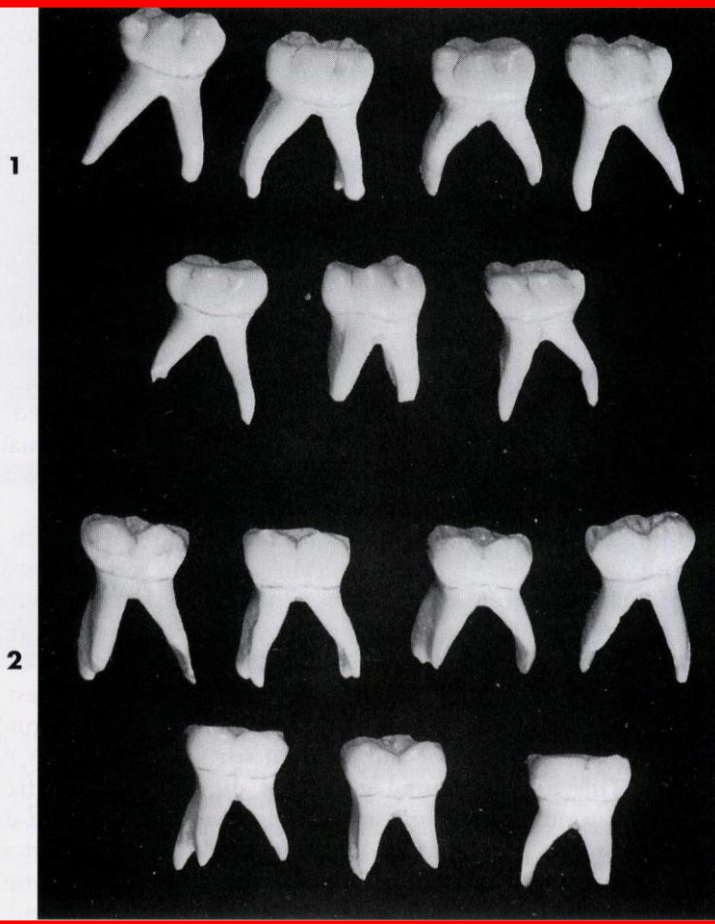
Primary Mandibular First Molar : Occlusal Aspect



The general outline from the occlusal aspect is rhomboidal .We can see:
CDG :Central development groove.
DBC:Distobuccal cusp. **BDG** :Buccal development groove .**CP** :central pit.
DLC: Distolingual cusp .**LDC**:Lingodistal cusp. **MLC**: Mesiolingual cusp.
MP: Mesial pit. **MBC**:Mesiobuccal cusp

Primary Mandibular Second Molar

Buccal aspect



It has characteristics that resemble those of the permanent mandibular first molar ,although its dimensions differ

Lingual aspect

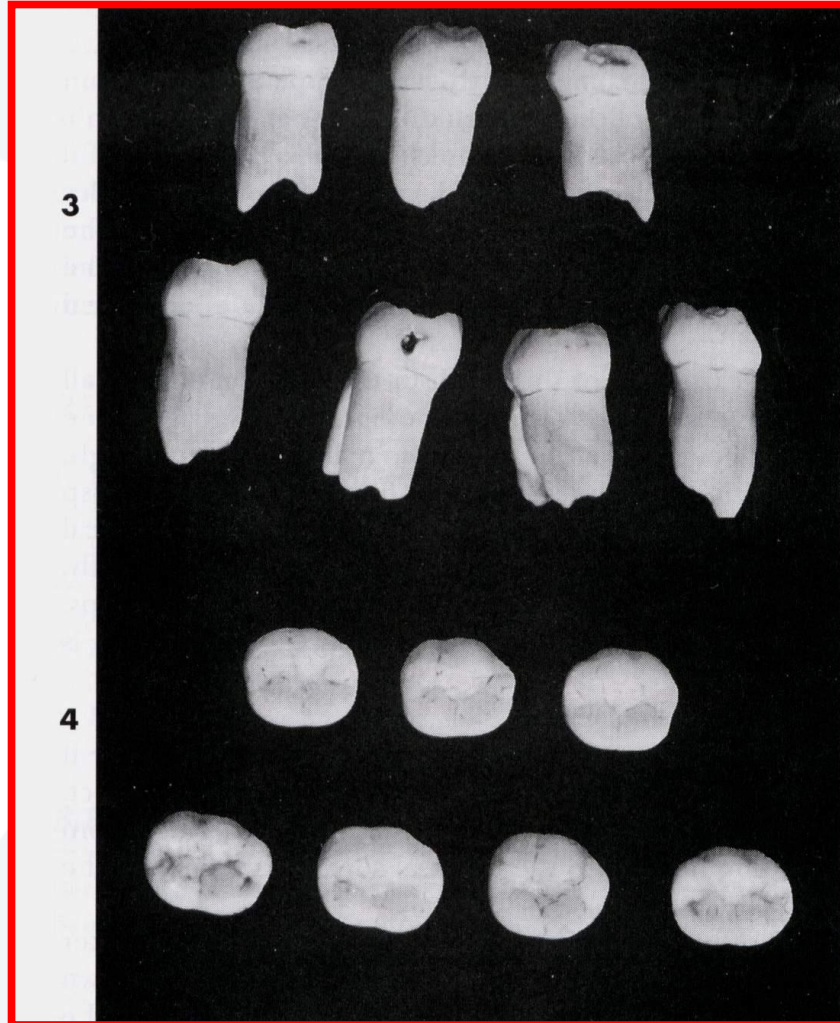
Primary Mandibular Second Molar

Mesial aspect

3

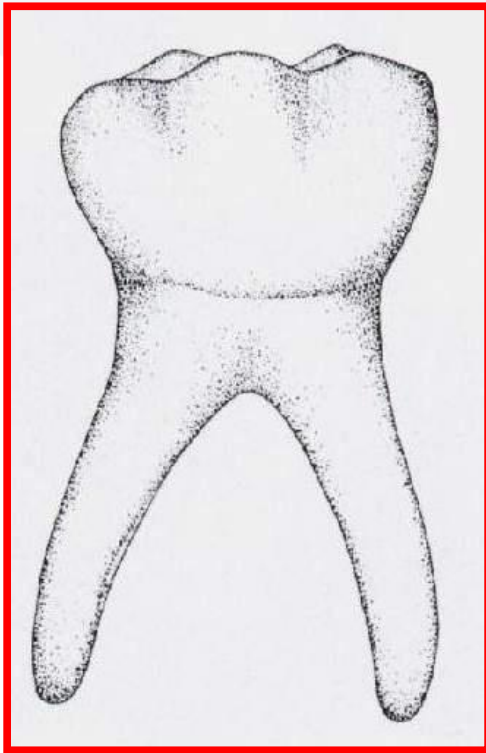
Occlusal aspect

4



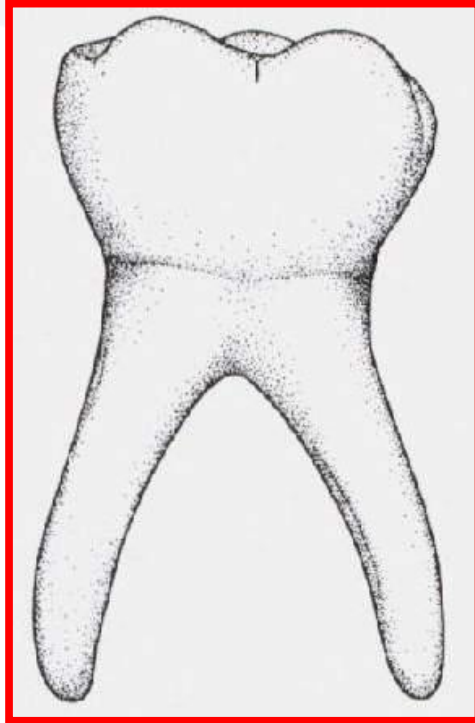
Primary Mandibular Second Molar :

Buccal Aspect



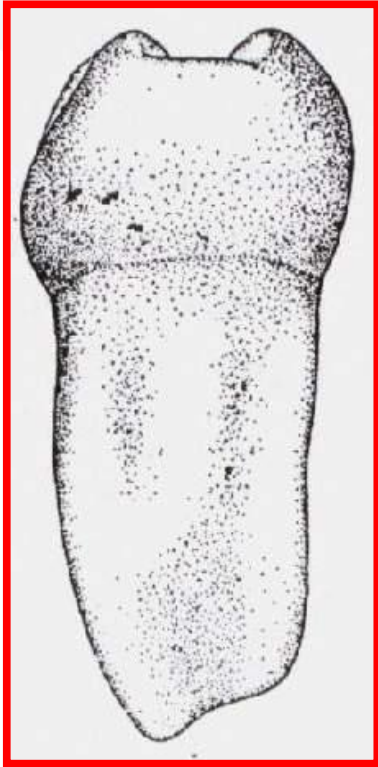
The Mesio-buccal and Disto-buccal grooves divided the buccal surface of the crown occlusally into three cuspal portions almost equal in size .It differs from the first permanent molar which has an uneven distribution buccally ,presenting two buccal cusps ,and one distal cusp. The roots are slender and long .The point of bifurcation of the roots starts immediately below the CEJ of the crown and root.

Primary Mandibular Second Molar : Lingual Aspect



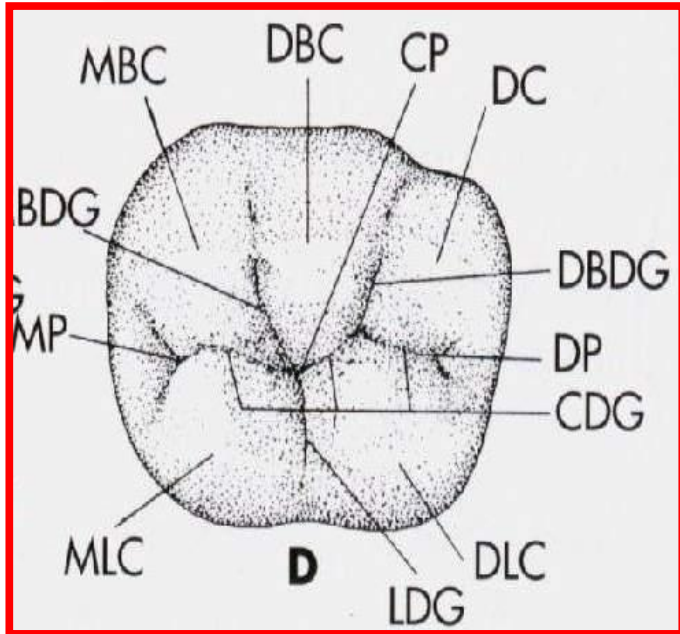
We can see two cusps of almost equal dimensions. A short ,lingual groove between them. the cervical line is relatively straight. the mesial portion of the crown seems to be a little higher than the distal portion from this aspect. A portion of each of the three buccal cusps may be seen from this aspect. The roots have the same appearance as the buccal aspect

Primary Mandibular Second Molar : Mesial Aspect



From this aspect ,the outline of the crown resembles the permanent mandibular first molar .The buccal cusp is over the root and the lingual outline of the crown extending out beyond the root line .The marginal ridge is high that makes the mesiobuccal cusp and the mesiolingual cusp appears rather short. The lingual cusp is longer , higher than the buccal cusp. The mesial root is unusually broad and flat with blunt apex that is sometimes serrated.

Primary Mandibular Second Molar : Occlusal Aspect



DBC: Distobuccal cusp, CP: Central pit.
DC :Distal cusp . DBDG :Distobuccal developmental groove .DP :Distal pit.
CDG: Central developmental groove.
DLC :Distolingual cusp. LDG :Lingual developmental groove .MLC: Mesiolingual cusp. MP: Mesial pit. MBDG :Mesiobuccal development groove .MBC: Mesiobuccal cusp.