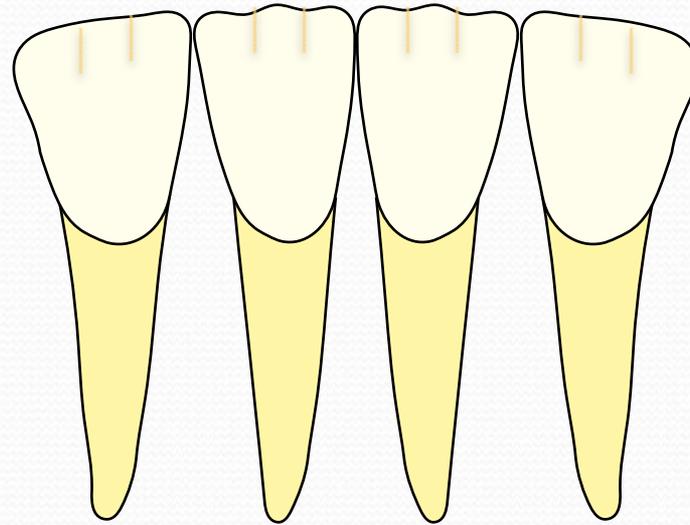


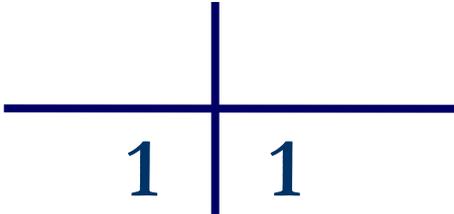
Lecture of Mandibular Permanent Incisors



Dr Sherif Hassan
2023

Mandibular Permanent Central Incisor

□ Identification:

1. A diagram of a mandibular permanent central incisor. It consists of a vertical line with a horizontal line crossing it at the middle. The number '1' is written below each of the two vertical segments.
2. **41** and **31**
3. **25 #** and **24 #**

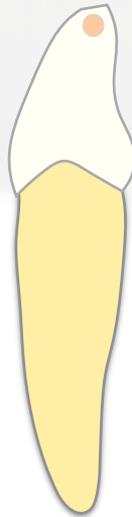
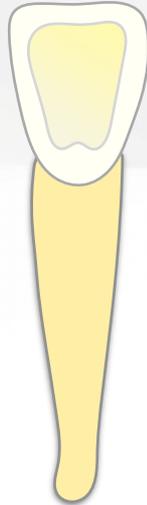


Mandibular Permanent Central Incisor

The *** smallest *** Among all permanent teeth.



Mandibular permanent central incisor



Labial

Lingual

Mesial

Distal

Incisal

Labial Aspect

Geometrical outline of the crown:

Trapezoid

- The Short Side Located Cervically.
- The Long Side Located Incisally.

Mesial, Distal and incisal Outlines are straight:

- Mesial and Distal Contact Area is at Incisal Third .
- Mesioincisal and Distoincisal angles are Sharp.
- Incisal ridge make right angle to tooth Long axis.

Cervical line:

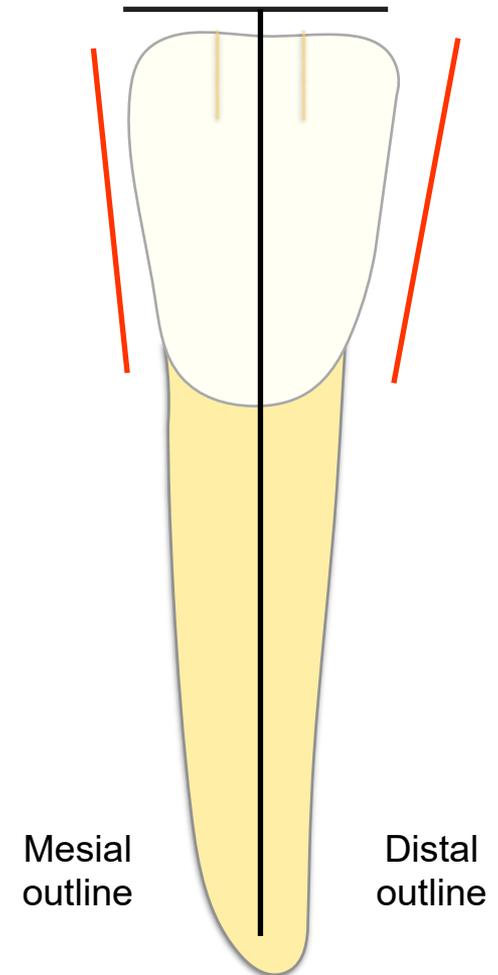
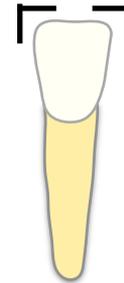
- Convex toward the root.

Labial Surface Anatomy:

- Flat then Slightly convex at Cervical third.

Root:

- Very narrow, Tapered and curved with a pointed apex.



Lingual Aspect

□ Lingual Outlines :

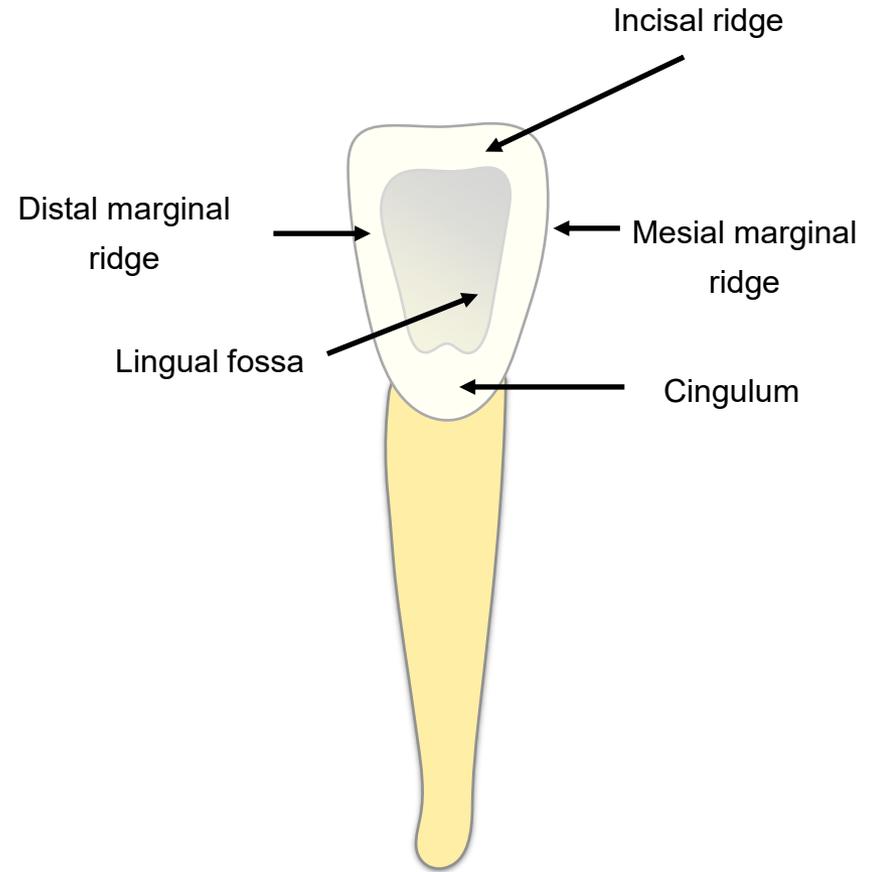
- Similar to labial aspect.

□ Crown Elevations:

- All crown elevations are poorly developed.
- 1- Cingulum (cervical 1/3).
- 2- Mesial marginal ridges.
- 4- Distal marginal ridges.
- 3- Incisal ridge.

□ Crown depression:

- Lingual fossa.



Mesial Aspect

Geometrical outline of the crown: **# Triangular in shape #**

- The incisal ridge is lingual to line that bisects the center of the root.

Labial outline:

- Convex at cervical 1/3 (cervical ridge).
- Then, become flat to the incisal ridge.

Lingual outline:

- Convex at cervical 1/3 (cingulum).
- Then, concave at the lingual fossa.
- Then, slightly convex at incisal ridge.

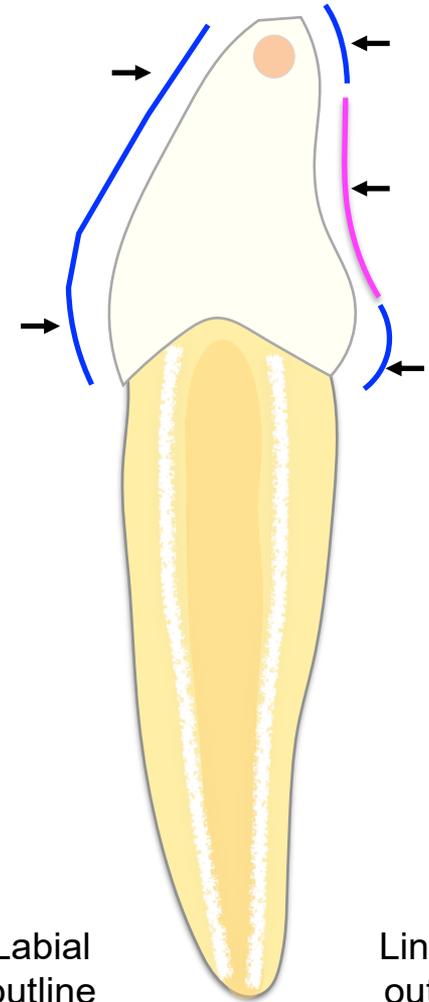
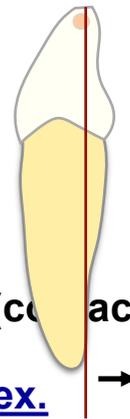
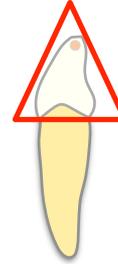
Cervical line Convex incisally.

Mesial surface:

- Convex with the maximum convexity at the incisal 1/3 (contact area).

root: Broad and tapered with blunt or rounded apex.

- The root has developmental depression.



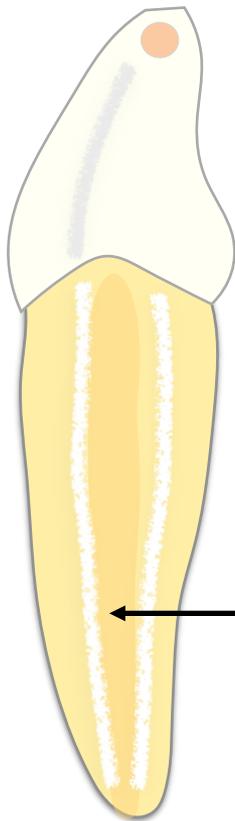
Labial outline

Lingual outline

Distal Aspect

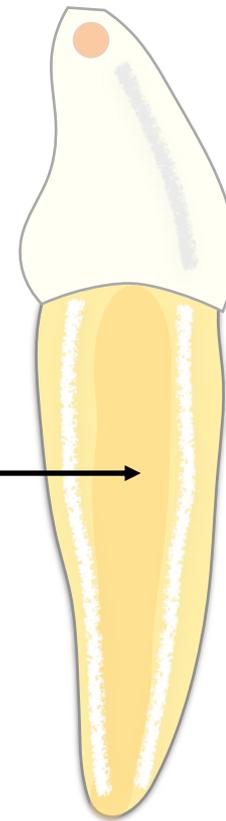
*Similar to the mesial aspect but differ in:

- The cervical line curvature is less than mesial (by 1 mm).
- Distal developmental depression on the root is **deeper** than mesial developmental depression.



Mesial aspect

- Distal developmental depression →
- Mesial developmental depression ←



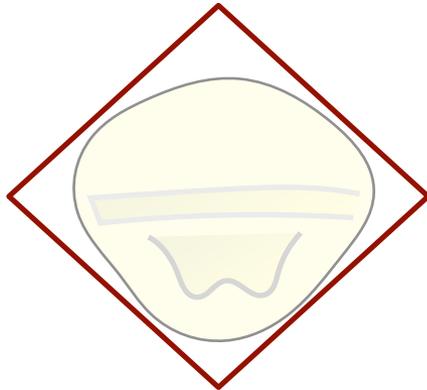
Distal aspect

Incisal Aspect

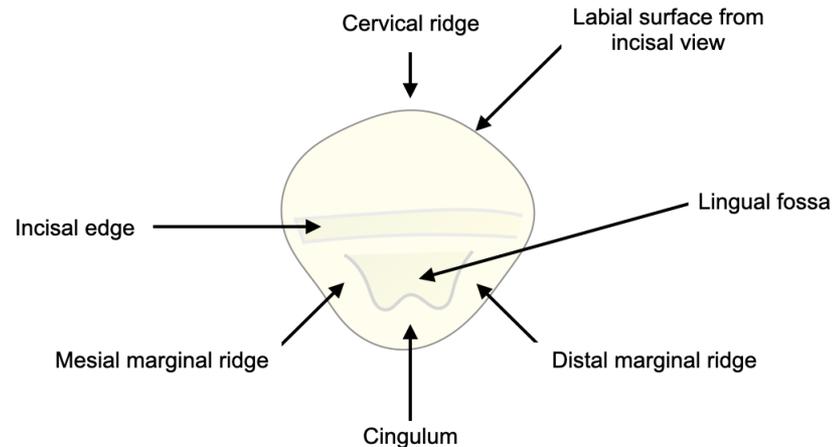
□ Geometrical outline of the crown:

Diamod

- The incisal edge is straight and inclined lingually.
- The mesial and distal halves are identical.
- The incisal edge is perpendicular to a line bisecting the crown labiolingually.



Labial outline

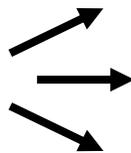


Lingual outline

Mandibular Permanent Lateral Incisor



□ Identification:



2		2
42		32
26 #		23 #

Labial Aspect

Geometrical Outline: *Trapezoid*

- Both crown and root are larger than mandibular permanent incisor.

Mesial Outline and Distal Outline:

- Similar to mandibular permanent incisor.
- Mesial outline is clearly longer than the distal outline.

Incisal outline:

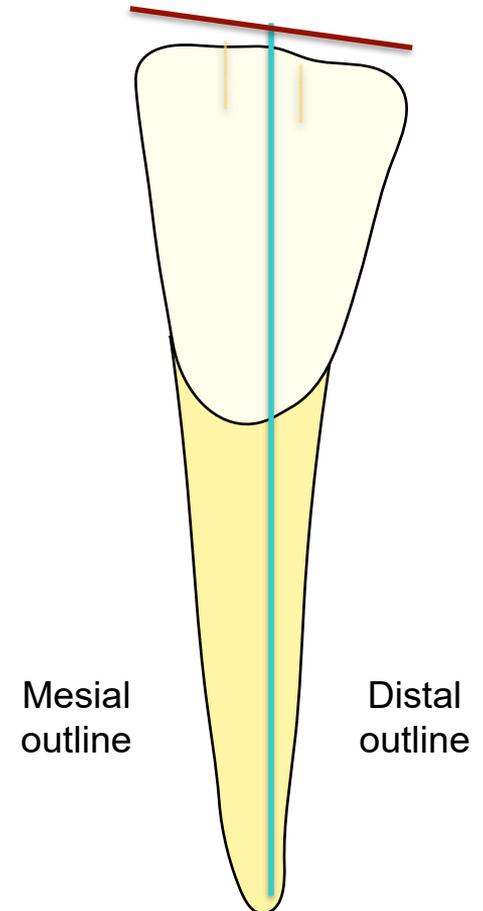
- The incisal edge is straight and *sloped downward toward the distal surface which make acute angle with tooth long axis.*
- The mesio-incisal angle is acute
- The disto-incisal angle is rounded.

Root:

- Single tapered root with pointed apex.
- Curved distally at the apical third.

Cervical line:

Convex toward the root.



Lingual Aspect

All elevations and depression are poorly developed than in the upper incisors.

I- Outlines :

Similar to labial aspect.

II- Crown Elevations:

1- Cingulum is inclined toward distal surface.

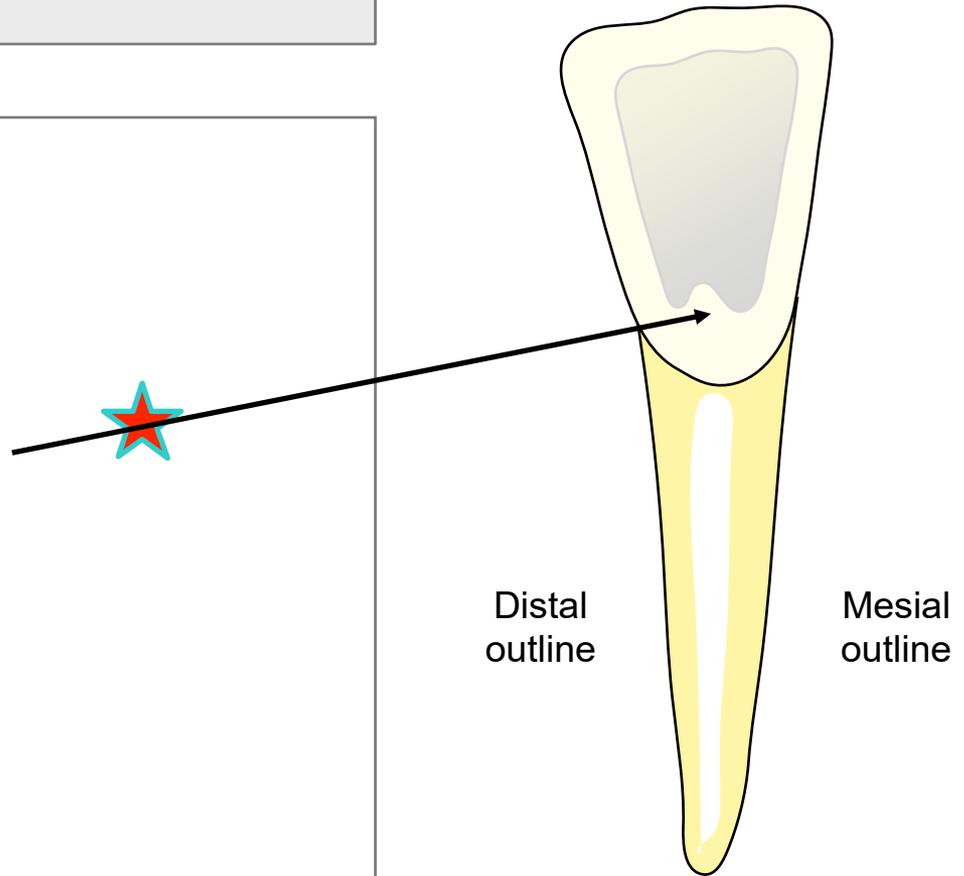
2- Mesial Marginal Ridges.

4- Distal Marginal Ridges.

3- Incisal Ridge.

III- Crown Depression:

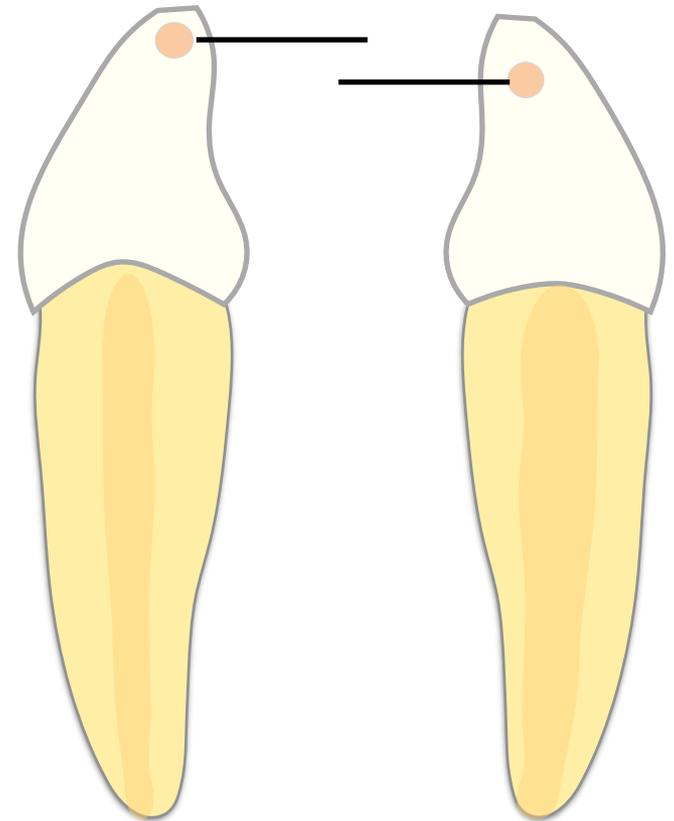
1- Lingual Fossa is less developed.



Mesial and distal aspect

Similar to mandibular central incisor except:

- Mesial aspect is longer than the distal aspect.
- Mesial contact area is more incisal than distal.
- Cervical lines are less curved than central incisor.
- Cervical line is less curved in distal than mesial.
- Root developmental depressions are more developed.



Mesial aspect

Distal aspect

Incisal Aspect

- I- **Geometric outline** : **Diamond**
- The incisal ridge is straight and inclined lingually.
- The mesial and distal halves are not identical.
- The incisal ridge make angle to a line bisecting the crown labiolingually.
- Cingulum is inclined distally.

