

### Permanent mandibular Incisors

Mandibular incisors are four in number; two central incisors (right & left) and 2 lateral incisors (right & left). The mandibular incisors have smaller mesiodistal dimensions than any of the other teeth. The central incisor is somewhat smaller than the lateral incisor, which is the reverse of the situation in the maxilla.



#### Characteristic features of Permanent mandibular incisors

1. The mandibular incisors have smaller mesio-distal dimensions than any of the other teeth.
2. The contact areas are near the incisal ridges mesially and distally.
3. The lingual surface is relatively smooth and featureless with the marginal ridges and the cingulum being not well developed.
4. The labial surface inclined lingually so that the incisal ridge is lingual to a line bisecting the root.

### Permanent Mandibular Central Incisor

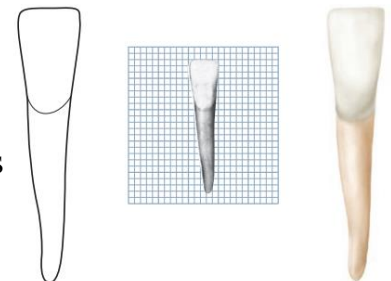
#### Principal identifying features

1. It is the smallest tooth in the permanent dentition.
2. The incisal ridge is lingually inclined.
3. Well-defined distal longitudinal groove is seen on the root.



#### Labial Aspect

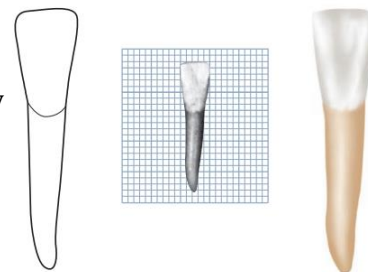
1. The incisal ridge is straight and nearly at a right angle to the long axis of the tooth.
2. The disto-incisal angle is more rounded than the mesio-incisal angle.
3. The contact areas are incisal to the junction between incisal and middle thirds of the crown.
4. The mesial and distal root outlines are straight; with a distally curved apex.



5. The labial surface of the crown is smooth; being flat at the incisal third and becoming more convex as it goes cervically.

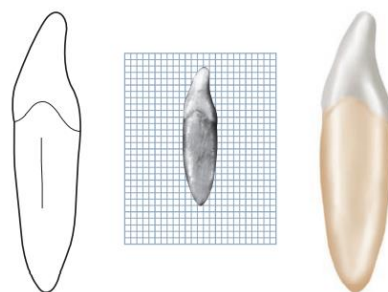
### Lingual Aspect

1. The lingual surface of the crown is smooth with very slight concavity at the incisal third.
2. No developmental grooves are found near the cingulum.



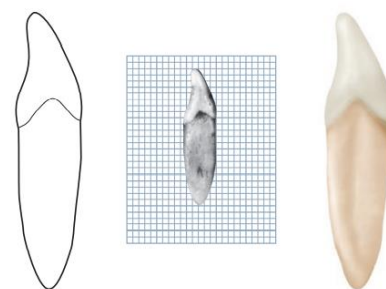
### Mesial Aspect

1. The labial outline above the cervical curvature is straight.
2. The lingual outline shows a shallow concavity ending to the blunt incisal ridge which is lingual to a line bisecting the root.
3. The curvature of the cervical line goes incisally about one-third the length of the crown.
4. The mesial surface of the root showed a broad development depression for most of the root and this become deeper at the junction of the middle and apical third.



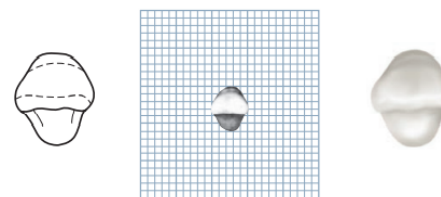
### Distal Aspect

1. The cervical lines curvature is less than that mesially.
2. The developmental depression in the root is more marked than that on the mesial side with a deeper and more well-defined developmental groove in its center.

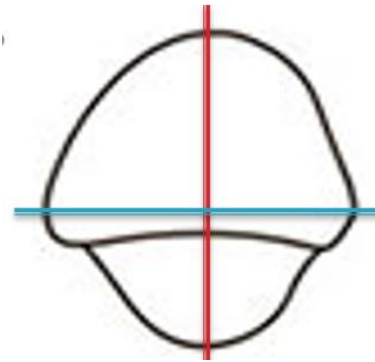


### Incisal Aspect

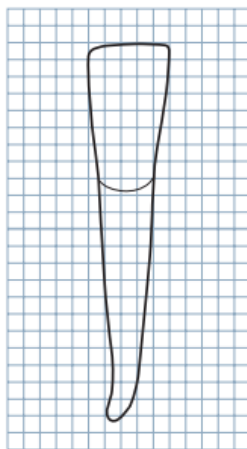
1. The mesial half of the crown is almost identical to the distal half (bilateral symmetry).
2. The incisal edge is at a right angle to a line bisecting the crown labio-lingually. (Mark of identification).



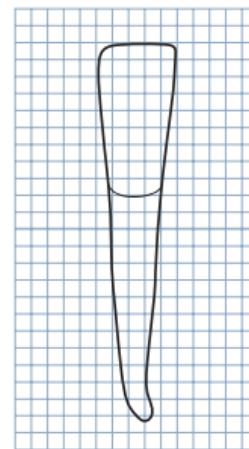
3. At the incisal third, the labial surface of the crown is broad and slightly convex, and the lingual surface is slightly concave.
4. More of the labial surface may be seen than of the lingual surface from this aspect.
5. Labio-lingual diameter is greater than mesio-distal one.



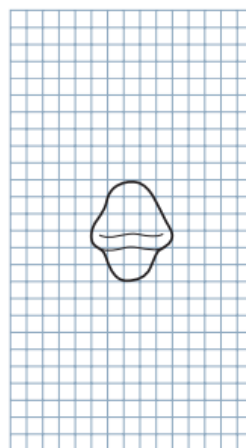
MEASUREMENT TABLE								
	CERVICOINCISAL LENGTH OF CROWN	LENGTH OF ROOT	MESIODISTAL DIAMETER OF CROWN	MESIODISTAL DIAMETER OF CROWN AT CERVIX	LABIO- OR BUCCOLINGUAL DIAMETER OF CROWN	LABIO- OR BUCCOLINGUAL DIAMETER OF CROWN AT CERVIX	CURVATURE OF CERVICAL LINE—MESIAL	CURVATURE OF CERVICAL LINE—DISTAL
Dimensions* suggested for carving technique	9.5	12.5	5.0	3.5	6.0	5.3	3.0	2.0
*In millimeters.								



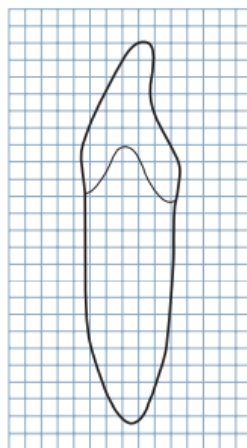
Labial



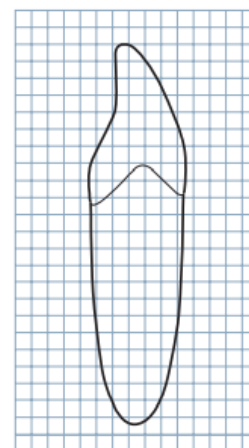
Lingual



Incisal



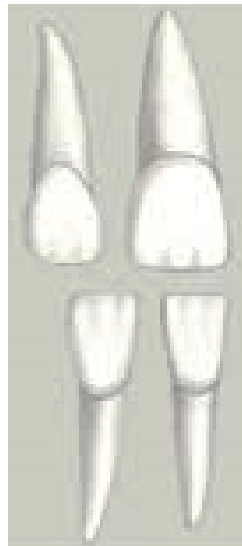
Mesial



Distal

## Common differences between maxillary and mandibular central incisors

Features	Maxillary central incisor	Mandibular central incisor
<i>Incisal ridge location</i>	Centered over the root.	More lingually positioned.
<i>Labial outline (from mesial aspect)</i>	Convex cervically, slightly convex to the incisal ridge.	Slightly convex cervically, straight to the incisal ridge.
<i>Lingual aspect</i>	Feature-full.	Featureless
<i>Contact areas</i>	More cervically.	More incisally.
<i>Size</i>	Larger.	Smaller.

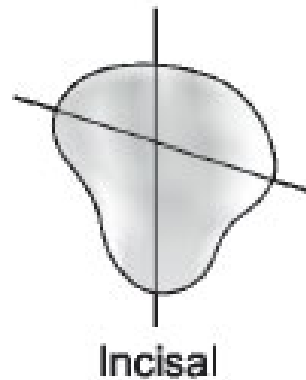
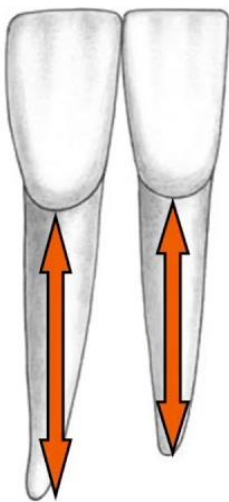


**Maxillary and mandibular central and lateral incisors.**

## Permanent Mandibular Lateral Incisor

### Principal identifying features

1. Slightly larger than the mandibular central incisors with fan shaped crown.
2. The crown is slightly longer, but the root is considerably longer than the mandibular central incisors.
3. The mesial side of the crown is longer than the distal side, causing the incisal ridge to slope downward in a distal direction.
4. The distal contact area is more towards the cervical area than mesial contact area.
5. Faint marginal ridges but more prominent than in mandibular central incisors.
6. The incisal edge is twisted distally in a lingual direction to follow the curvature of the lower arch.
7. There are mesial and distal developmental depressions on the root.

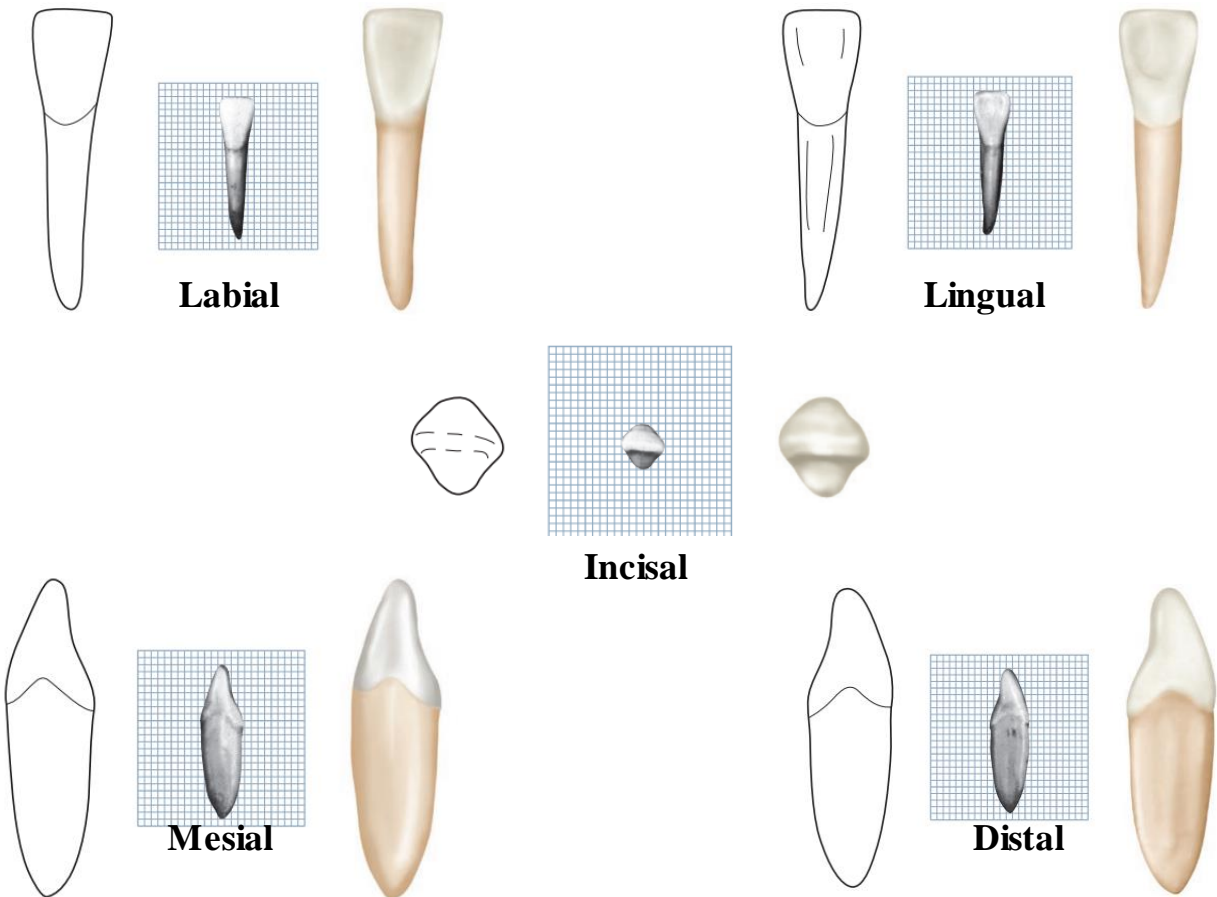


Faint marginal ridges

MEASUREMENT TABLE

	CERVICOINCISAL LENGTH OF CROWN	LENGTH OF ROOT	MESIODISTAL DIAMETER OF CROWN	MESIODISTAL DIAMETER OF CROWN AT CERVIX	LABIO- OR BUCCOLINGUAL DIAMETER OF CROWN	LABIO- OR BUCCOLINGUAL DIAMETER OF CROWN AT CERVIX	CURVATURE OF CERVICAL LINE—MESIAL	CURVATURE OF CERVICAL LINE—DISTAL
Dimensions* suggested for carving technique	9.5	14.0	5.5	4.0	6.5	5.8	3.0	2.0

\*In millimeters.

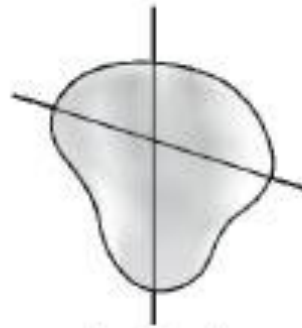




**Labial**



**Lingual**



**Incisal**



**Mesial**



**Distal**