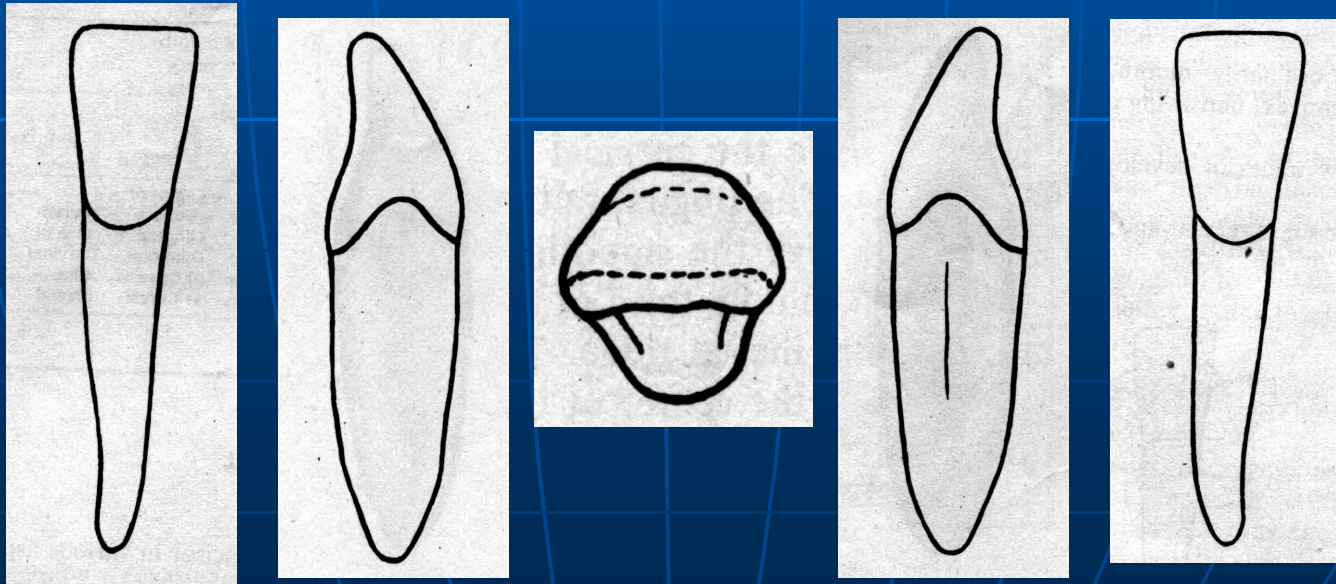


# MANDIBULAR CENTRAL INCISOR



# INTRODUCTION

- The mandibular Central Incisor is a smallest tooth in the dental arches. The crown has little more than half the mesiodistal diameter of the maxillary Central Incisor; however the Labiolingual diameter is only about 1mm less. The lines of greatest masticatory stress are brought to bear on the mandibular incisors in a Labiolingual direction making this reinforcement necessary.

- The single root is very narrow mesiodistally corresponds to the narrowness of the crown , although the root and crown are wide Labiolingually. The length of the root is as great, if not greater, than that of maxillary Central Incisor

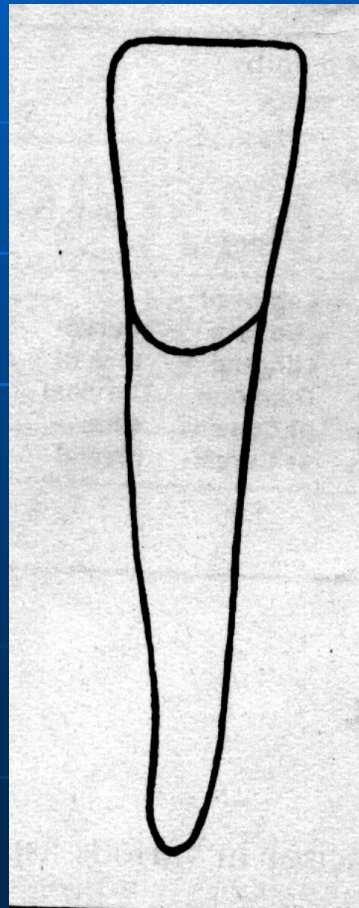
- First evidence of calcification 3 to 4 months
- Enamel completed 4 to 5 years
- Eruption 6 to 7 years
- Root completed 9 years

# MEASUREMENT TABLE

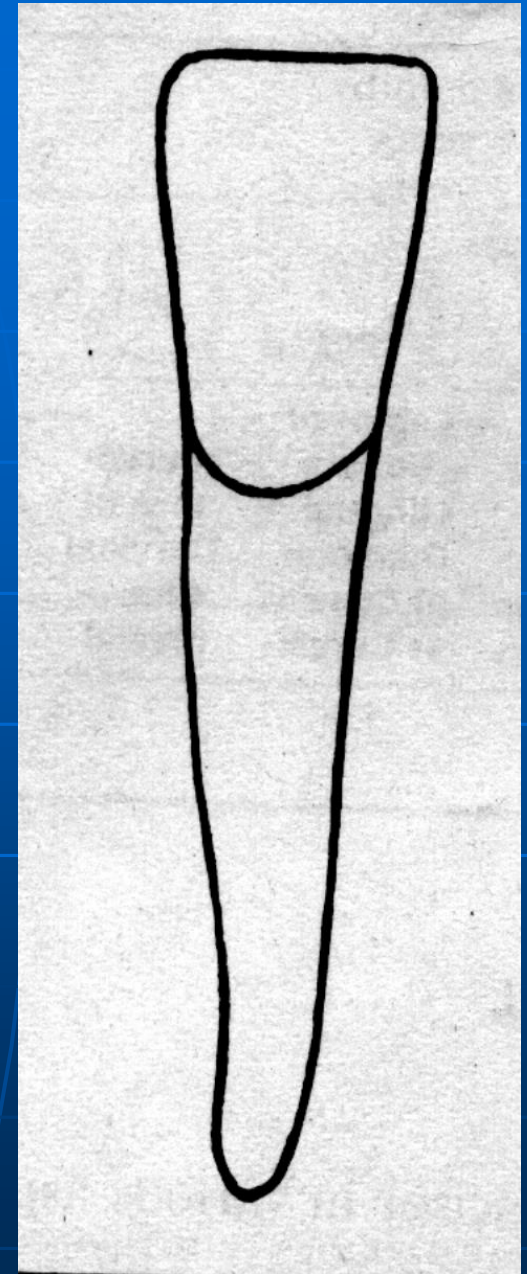
■ Cervico incisal length of crown	09.0
■ Cervico incisal length Of root	12.5
■ Mesiodistal diameter of crown	05.0
■ Mesiodistal diameter of crown At cervix	03.5
■ Labiolingual diameter of crown	06.0
■ Labiolingual diameter of crown At cervix	05.3
■ Curvature of cervical line mesial	03.0
■ Curvature of cervical line distal	02.0

**DETAILED  
DESCRIPTION OF  
MANDIBULAR CENTRAL  
INCISOR**

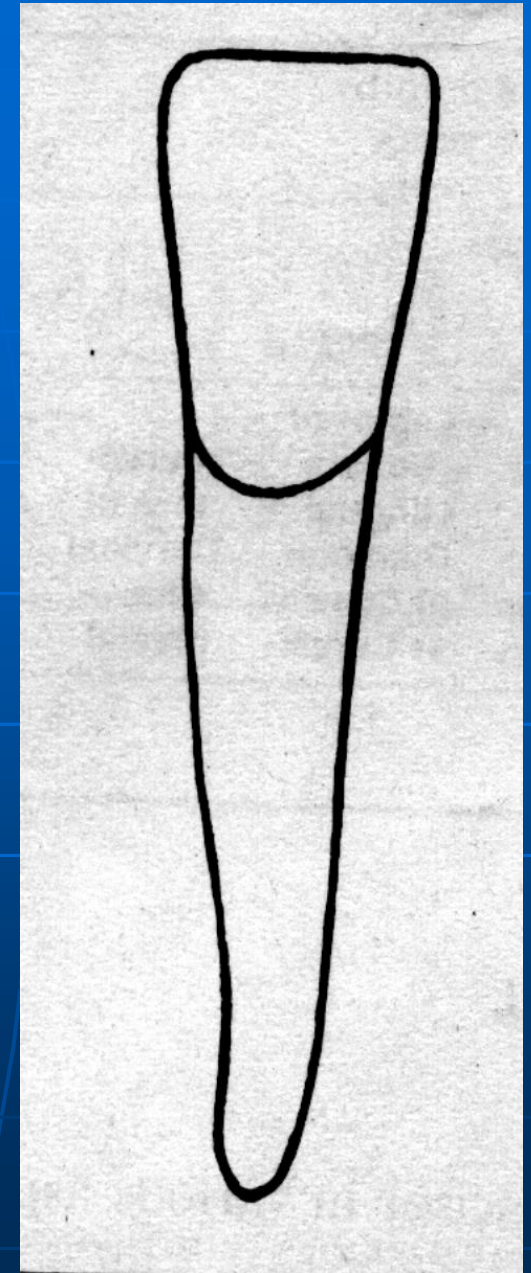
# LABIAL ASPECT



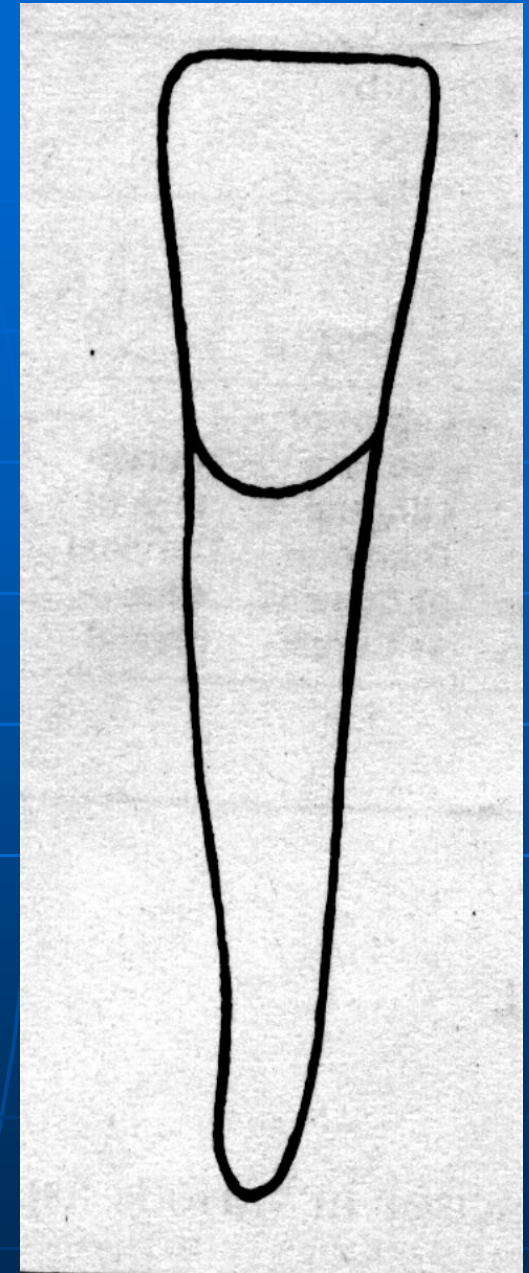
- Labial aspect is regular , tapering evenly from the relatively sharp mesial and distal incisal angles to the apical portion of the root. The incisal ridge of the crown is straight and is at approximately right angle to the long axis of the tooth. Usually, the mesial and distal outline of the crown make a straight drop downwards from the incisal angles to the contact areas, which are incisal to the junction of the incisal and middle thirds of crown.



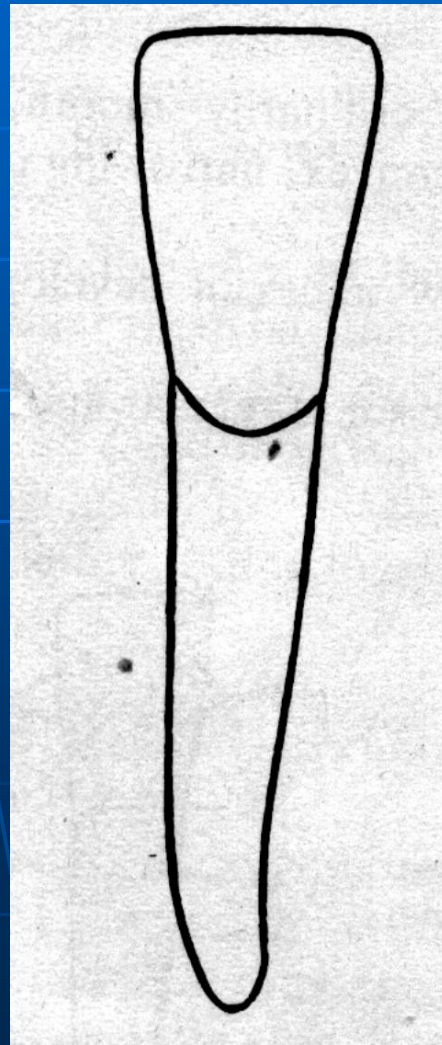
- The mesial and distal sides of the crown taper evenly from the contact areas to the narrow cervix.
- The mesial and distal root outlines are straight. The apical third of the root terminates in a small pointed taper, in most cases curving distally.

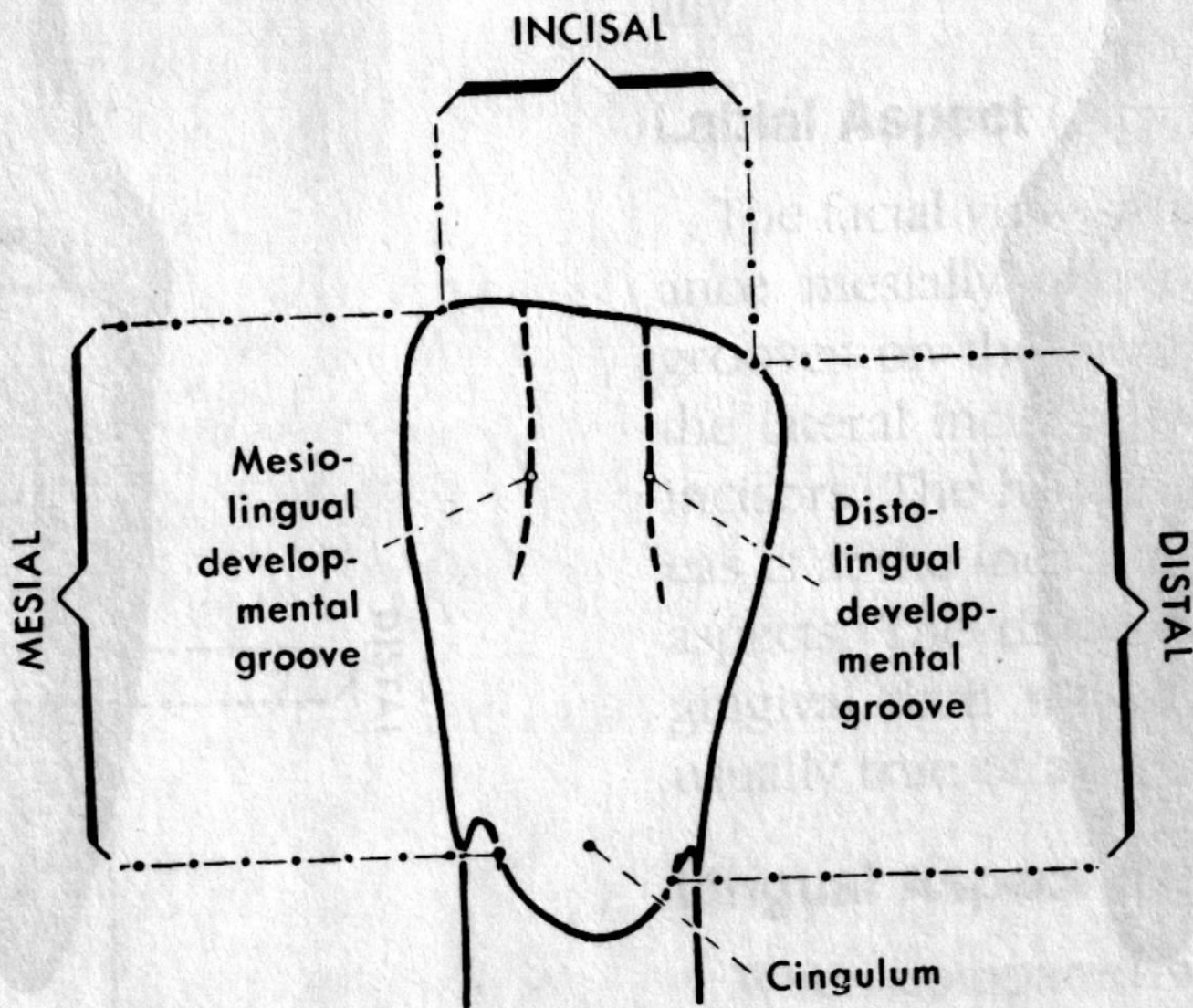


- The labial face of the mandibular Central Incisor crown is smooth, with a flattened surface at the Incisal third; the middle third is more convex, narrowing down to the convexity of the root at the cervical portion. Except in newly erupted teeth Central Incisors show few traces of developmental lines.
- The labial of the root is regular and convex



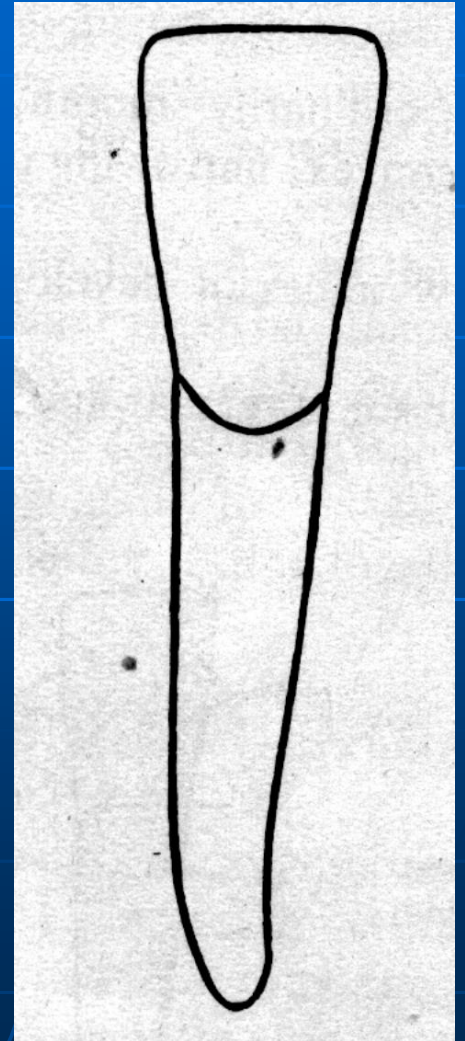
# LINGUAL ASPECT



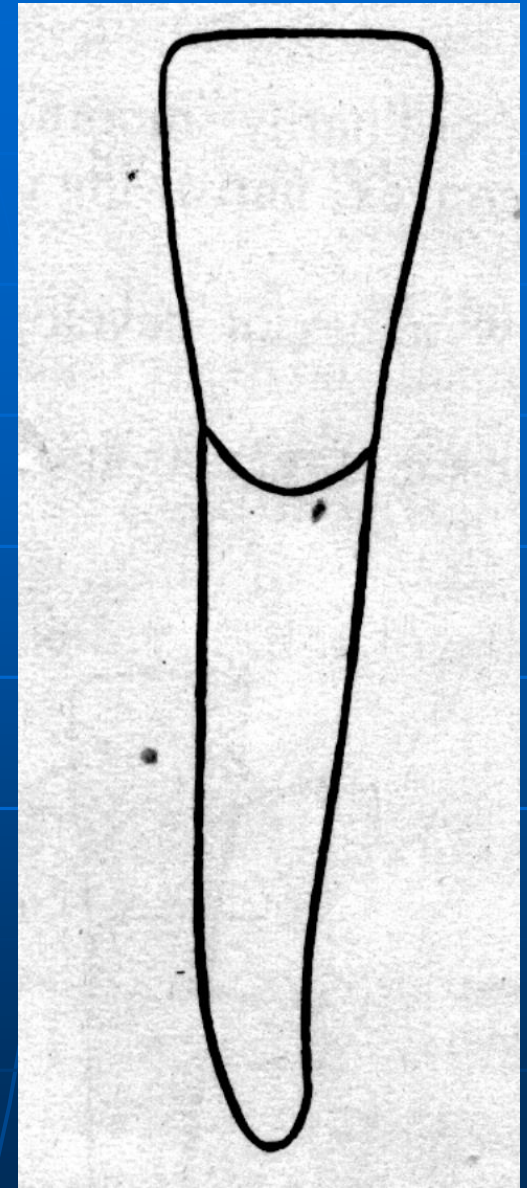


**Fig. 30-22** Lingual surface of mandibular right lateral incisor. (Zeisz and Nuckolls.)

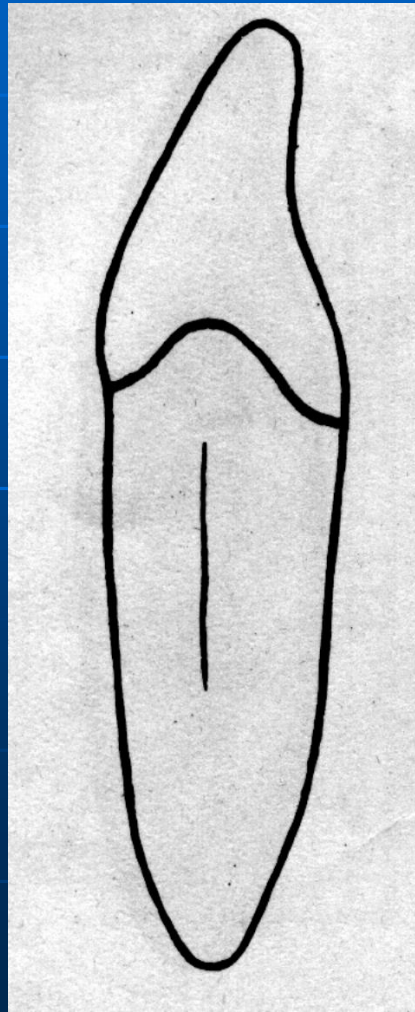
- The Lingual surface of the crown is smooth, with very slight concavity at the incisal third between the inconspicuous marginal ridges.



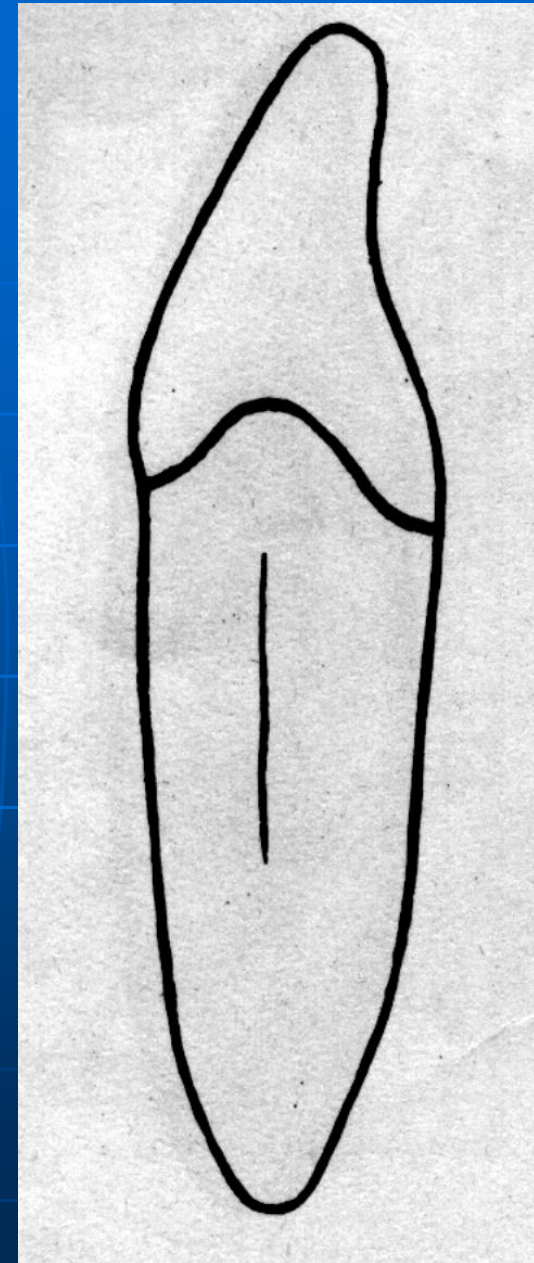
- The lingual surface becomes flat and then convex as progression is made from the Incisal third to the cervical third.
- No developmental lines mark the cingulum development on this tooth. The outline and the surfaces of the mandibular Incisors are regular and symmetrical



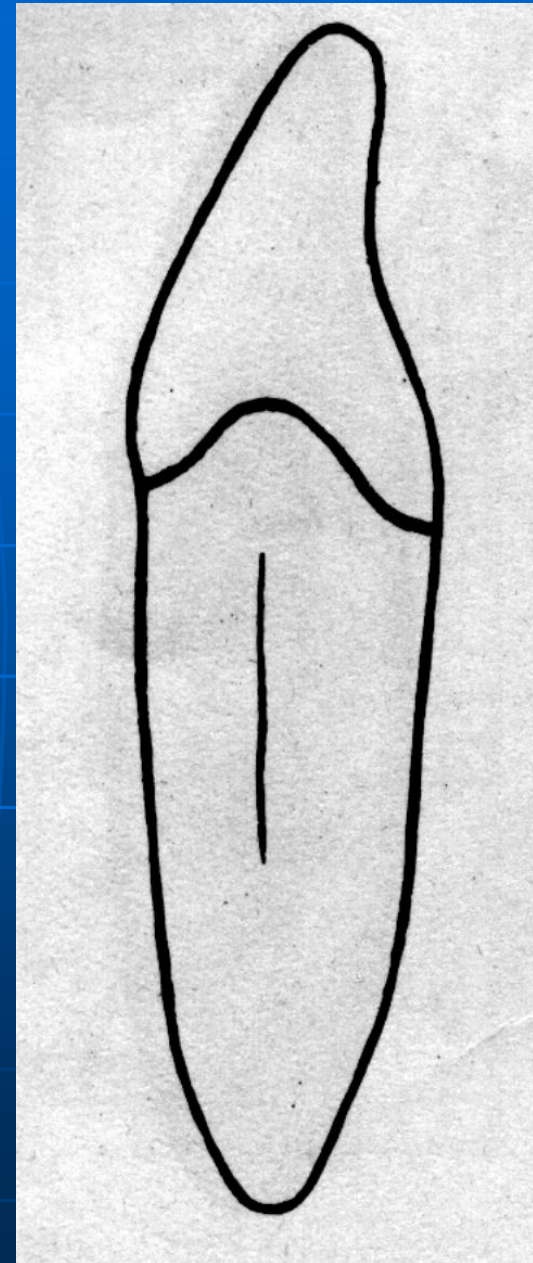
# MESIAL ASPECT



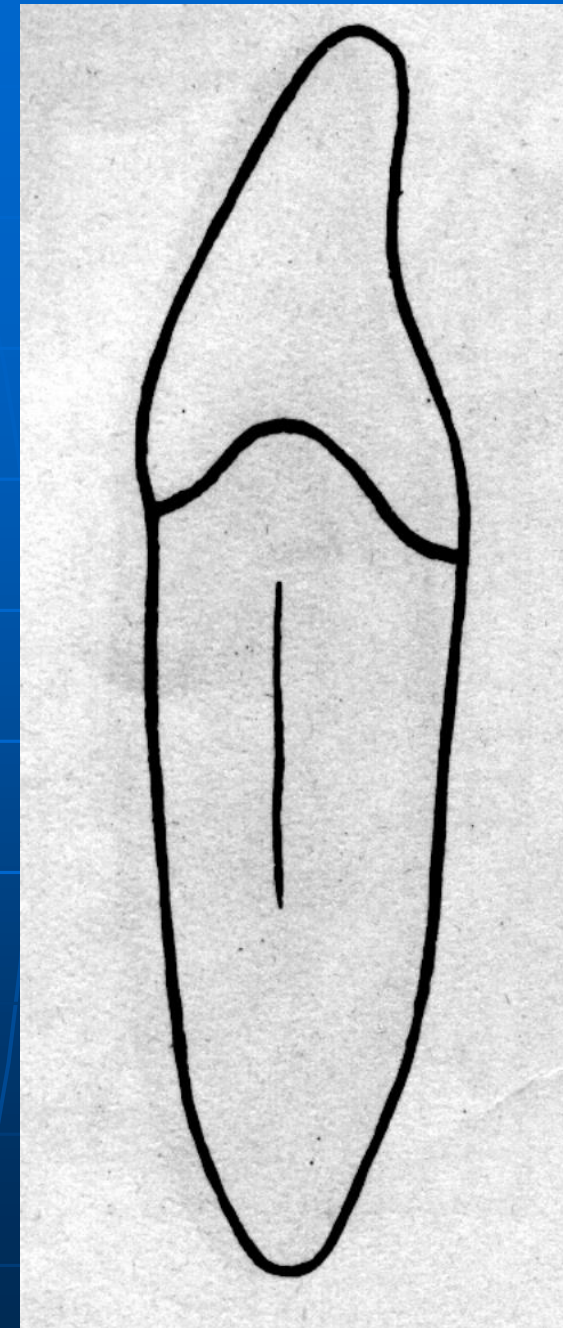
- The outline of the labial face of the crown is straight above the cervical curvature, sloping rapidly from the crest of curvature to the incisal ridge. The Lingual outline of the crown is a straight line inclined labially for a short distance above the smooth convexity of the cingulum; the straight outline joins a concave line at the middle third of the crown, which extends upwards to join the rounded outline of narrow incisal ridge



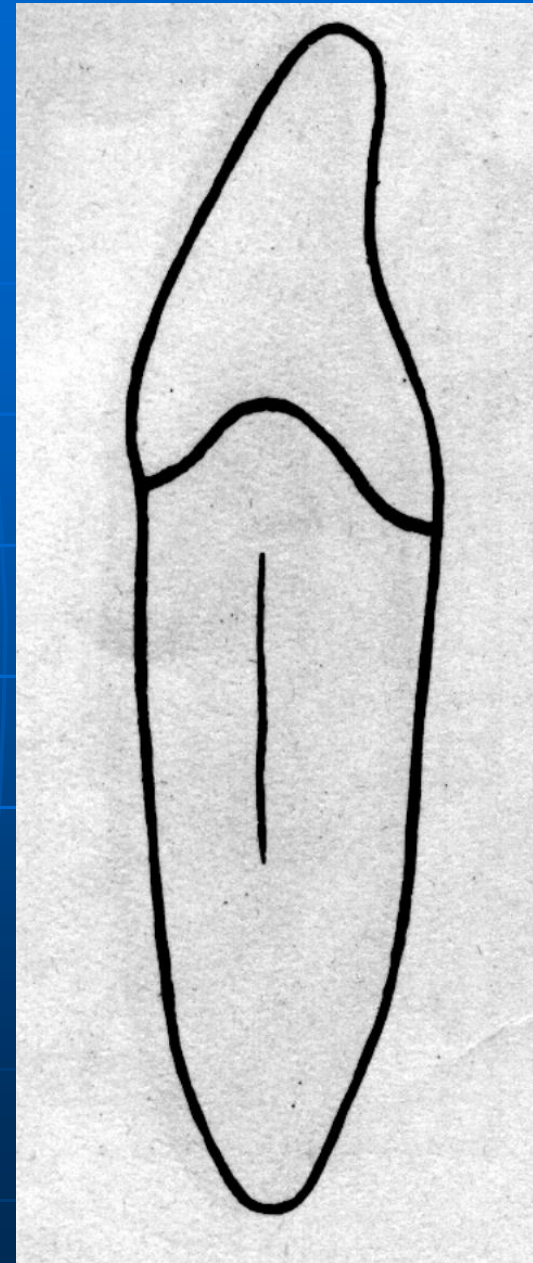
- The incisal ridge is rounded or worn flat, and its center is usually lingual to the center of the root.
- The curvature of cervical line representing the cemento enamel junction on the mesial surface is marked, curving incisally approximately one third the length of the crown.



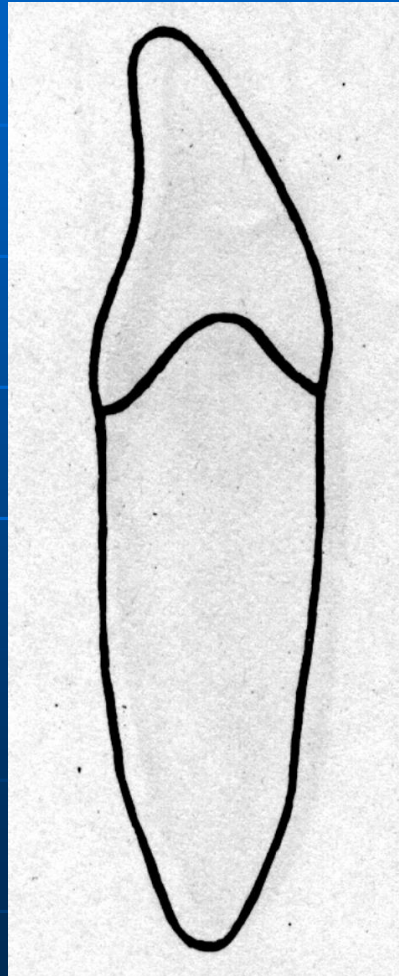
- The root outlines from the mesial aspect are straight with the crown outline from the cervical line, keeping the root diameter uniform through the cervical third and part of middle third; the outline of the root begins to taper in the middle third area, tapering rapidly in the apical third to either a bluntly rounded or a pointed root end.



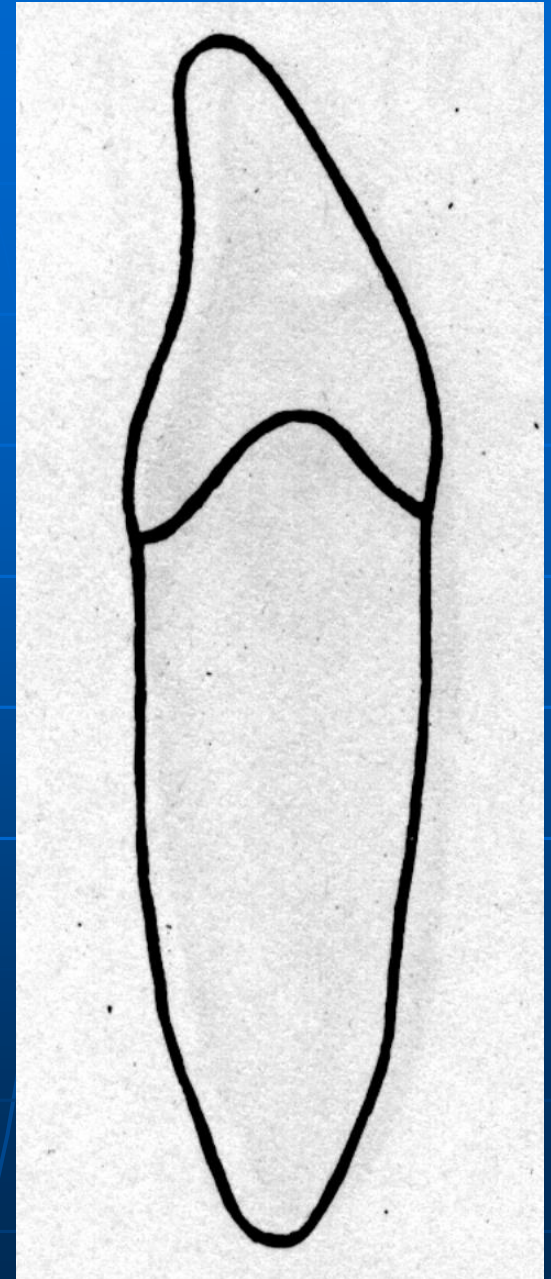
- The mesial surface of the crown is convex and smooth at the incisal third and becomes broader and flatter at the middle third cervical to the contact area; then becomes quite flat.
- The mesial surface of the root is flat just below the cervical line. most of this roots have a broad developmental depression for most of the root length.



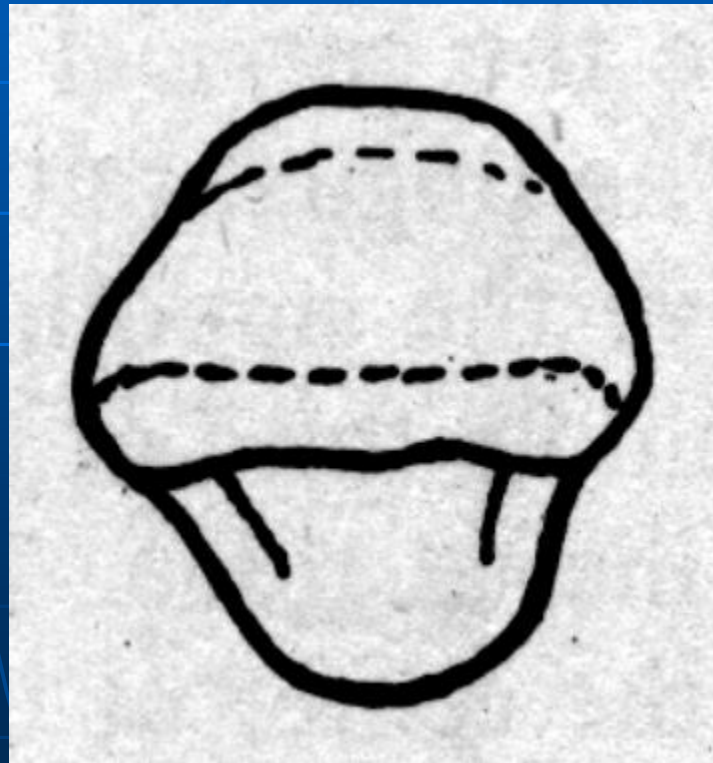
# *DISTAL ASPECT*



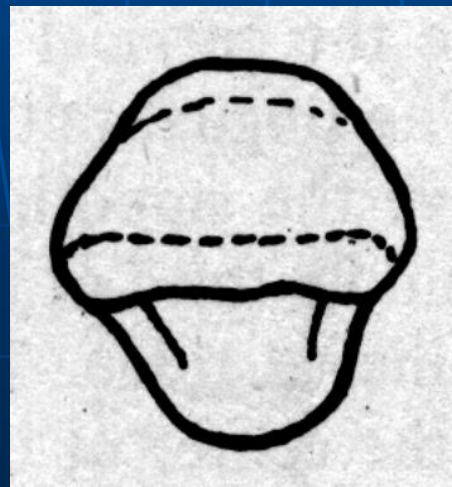
- The cervical line curves incisally about 1mm less than on the mesial.
- The distal surface of the crown and root of the mandibular Central Incisor is similar to that of the mesial surface. The developmental depression on the distal surface of the root may be more marked, with a deeper and more well defined developmental groove at its center.



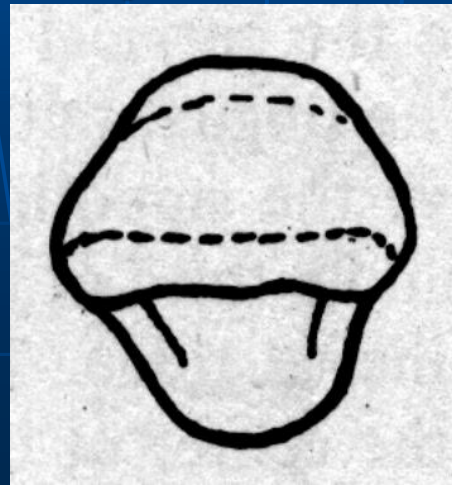
# INCSAL ASPECT



- This aspect illustrates the bilateral symmetry of the mandibular Central Incisor. The mesial half of the crown is almost identical with the distal half.
- The Incisal edge is almost at right angles to a line bisecting the crown labio lingually. This feature is characteristic of the tooth and serves as a mark of identification In differentiation between mandibular Central Incisor and Lateral Incisor.



- The diameter of the crown Labiolingually is always greater than their diameter mesiodistally.
- The labial surface of the crown is wider mesiodistally than the lingual surface. The crown is usually wider labially than lingually at the cervical third, which latter area is represented by smooth cingulum.



- The labial surface of the crown at incisal third, although rather broad and flat in comparison with the cervical third, has a tendency towards convexity, whereas the lingual surface of the crown at the Incisal third has an inclination towards concavity.
- When this tooth is posed from the Incisal aspect so that the line of vision is on a line with long axis of tooth, more of labial surface is seen than of lingual surface

