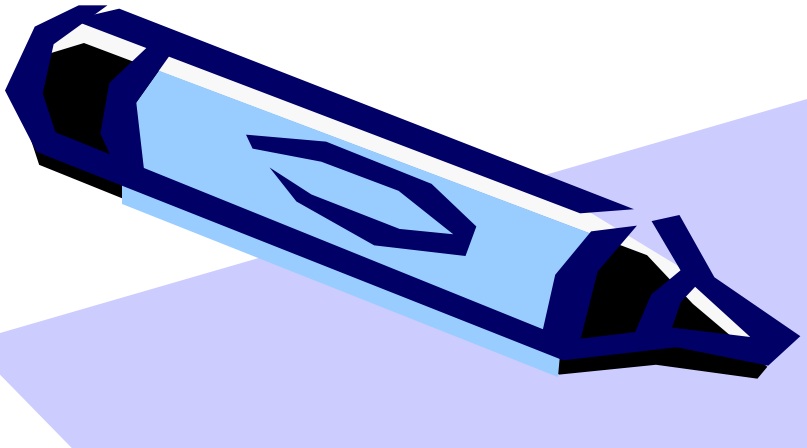


Maxillary Central Incisor

Lecture by:

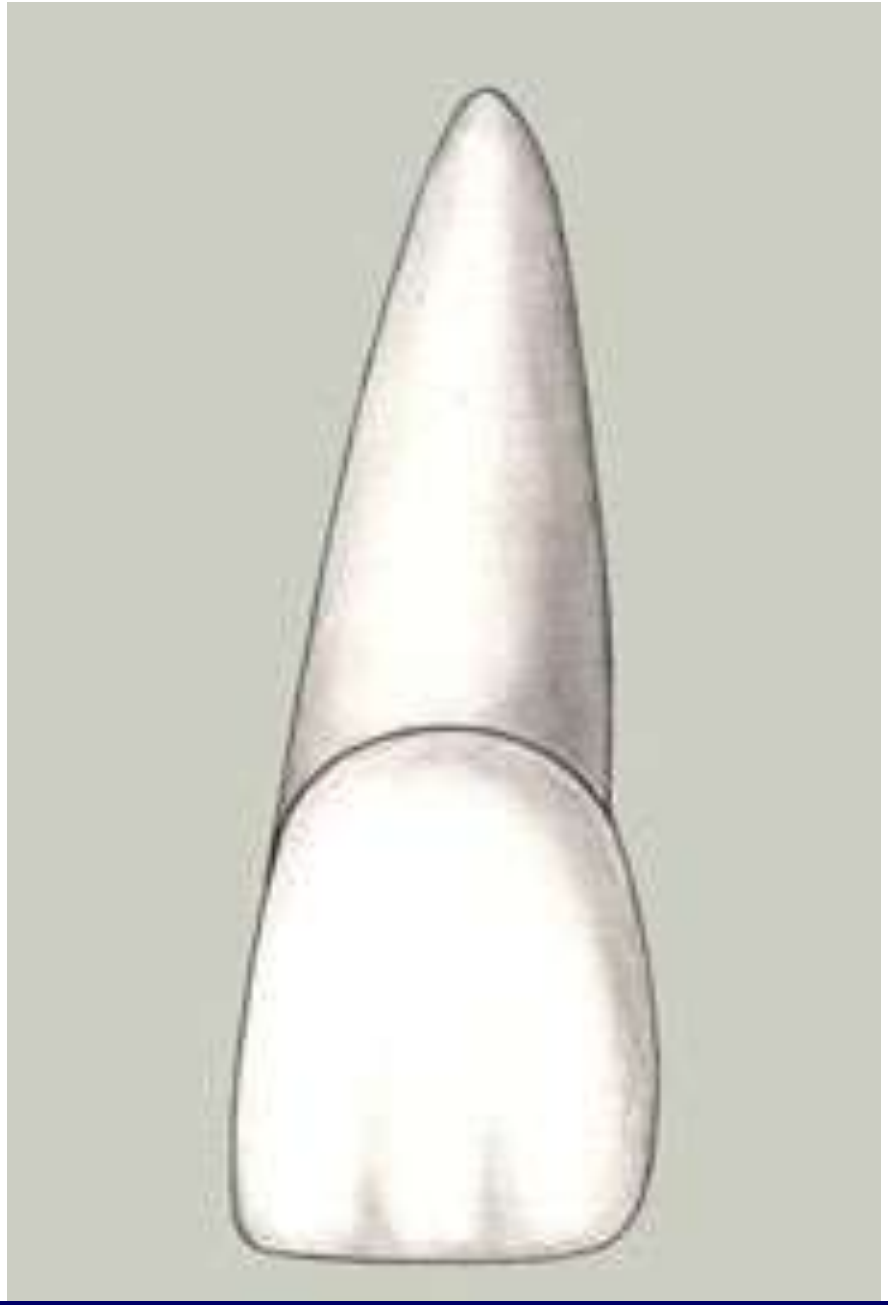
Dr. Suhasini G P

Lecturer

Dept. of Oral Pathology & Microbiology

- First evidence of calcification-3 to 4 months
- Enamel completed – 4 to 5 yr
- Eruption 7 to 8 yrs
- Root completed 10 yrs

- Cervico incisal length of crown — 10.5 mm
- Length of the root — 13 mm
- Mesiodistal diameter of crown — 8.5mm
- Mesiodistal diameter of crown at cervix — 7mm
- Curvature of cervical line, mesial — 3.5mm
- Curvature of cervical line, distal — 2.5mm



Maxillary central incisors are mainly shearing and cutting teeth.

Incisal ridge is that portion of the crown which makes up the complete incisal portion.

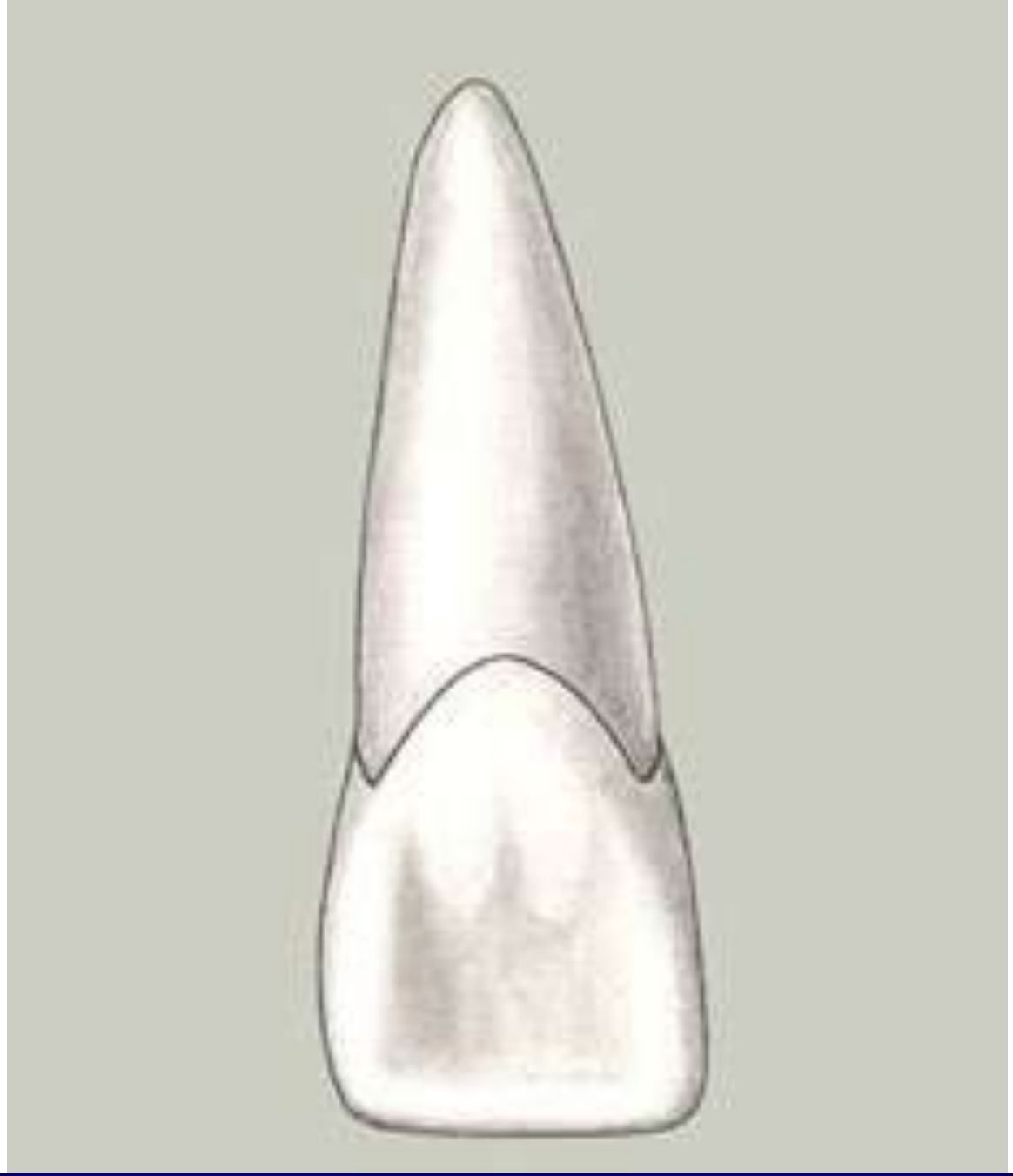
The incisal ridge is transformed into incisal edge by attrition. The incisal edge is formed by the junction of linguoincisal surface and the labial surface.

The labial surface is less convex than maxillary lateral and canine which gives it a square or rectangular appearance.

From this side the crown always looks symmetrical and regularly formed, having straight incisal edge, cervical line with even curvature towards the root, mesial side with straight outline and distal side slightly curved.

The mesioincisal angle is sharp whereas distoincisal is rounded.

Labial surface is convex although some may be flat at middle and incisal third regions.



Lingually, the largest part of the middle and incisal portion is concave, called lingula fossa.

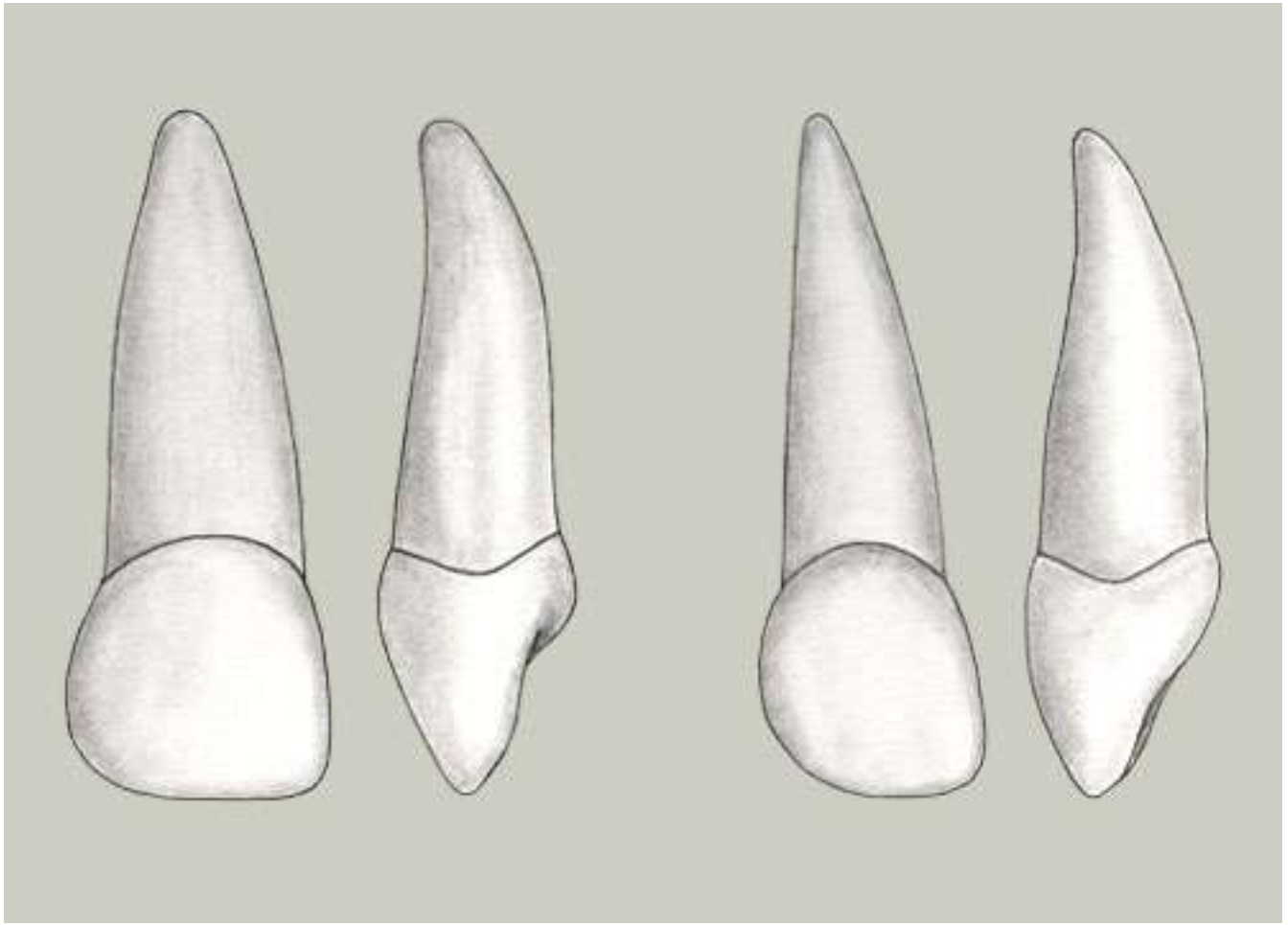
Mesial and Distal marginal ridges border the concavity, lingual portion of incisal ridge and convexity apical to cingulum.

The crown and root taper lingually.

Root is generally triangular with rounded angles.

Mesially the incisor is wedge shaped.

Incisal ridge lies in line with the apex.



Labiallly and lingually, coronal to cervical line are the crest of curvatures. These crests give maximum labiolingual dimension.

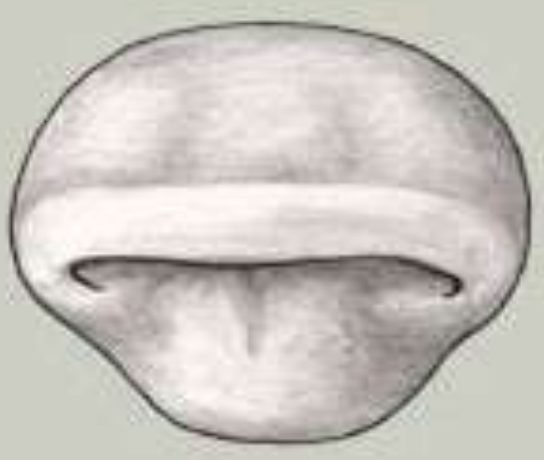
Labial outline of crown is slightly convex.

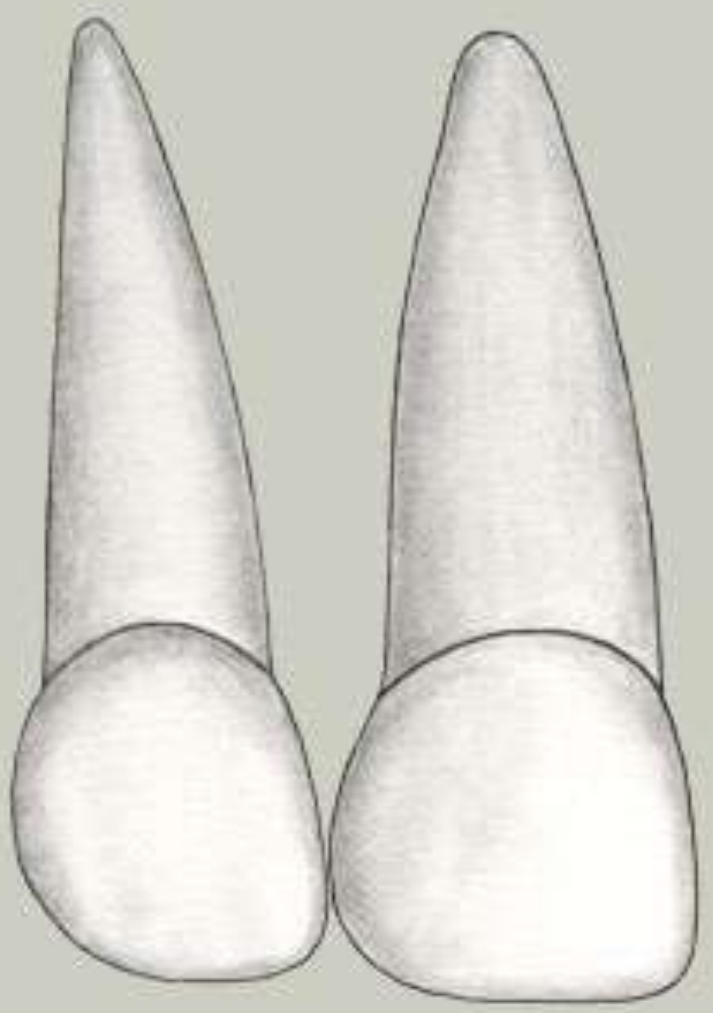
The root is cone shaped and apex is rounded.

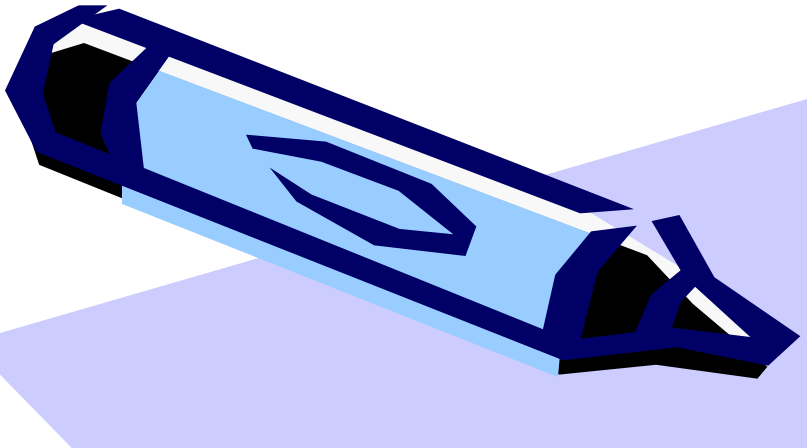
Distally, the crown appears to be thicker towards incisal third because of the slope of labial surface distolingually.

Incisally, the crown superimposes over the root completely.

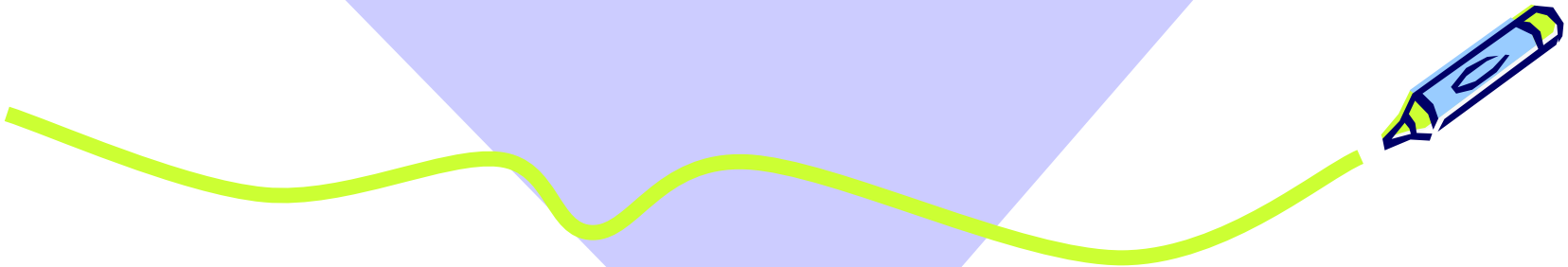
Labial surface appears to be broad and flat whereas lingual portion tapers lingually towards the cingulum.







Permanent Maxillary Lateral Incisors



Dr. Suhasini GP, Subharti Dental College, SVSU

- First evidence of calcification-10 to 12 months
- Enamel completed – 4 to 5 yr
- Eruption 8 to 9 yrs
- Root completed 11 yrs

- Cervico incisal length of crown – 9mm
- Length of the root 13 mm
- Mesiodistal diameter of crown 6.5mm
- Mesiodistal diameter of crown cervix 5mm
- Curvature of cervical line-mesial 3.0mm
- Curvature of cervical line –distal 2.0mm

The maxillary lateral incisor is smaller than central incisor in all dimensions except the root length.

The maxillary lateral incisor differs in form more than any tooth in the mouth except third molar.

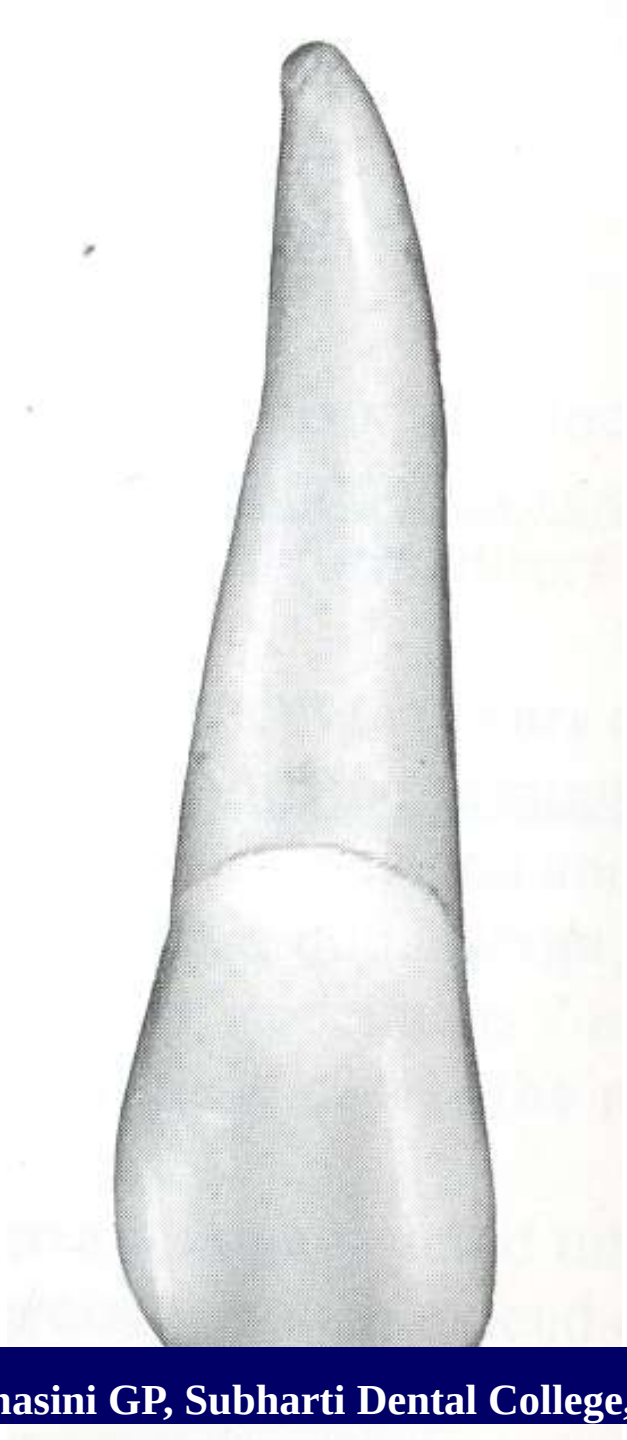
Peg-shaped, missing, large tubercle lingually.

Labial Aspect

Similar to central incisor with more curvature, rounded incisal ridge and rounded incisal angles mesially and distally.

Has more rounded mesioincisal angle. The crest of contour is usually at the junction of middle and incisal thirds.

Distal outline is more rounded and the crest more cervical usually in the center of middle third.



The labial surface is more convex than central incisor.

Narrow mesiodistally, usually 2mm narrower than central incisor.

The crown is 2-3mm shorter cervicoincisally than that of central incisor, but the root is as long as that of central.

The root is 1.5 times the length of the crown.

The root tapers evenly from cervical line to a point 2/3 of its length apically.

Normally the curvature of the root is distally but may fall mesially in some cases.

Lingual Aspect

Mesial and Distal marginal ridges are marked and the cingulum is prominent with a tendency towards deep development grooves within the lingual fossa.

The linguo-incisal ridge is well developed.

The lingual fossa is more concave and circumscribed.

The tooth tapers towards lingual resembling central incisor.

Lingual Aspect

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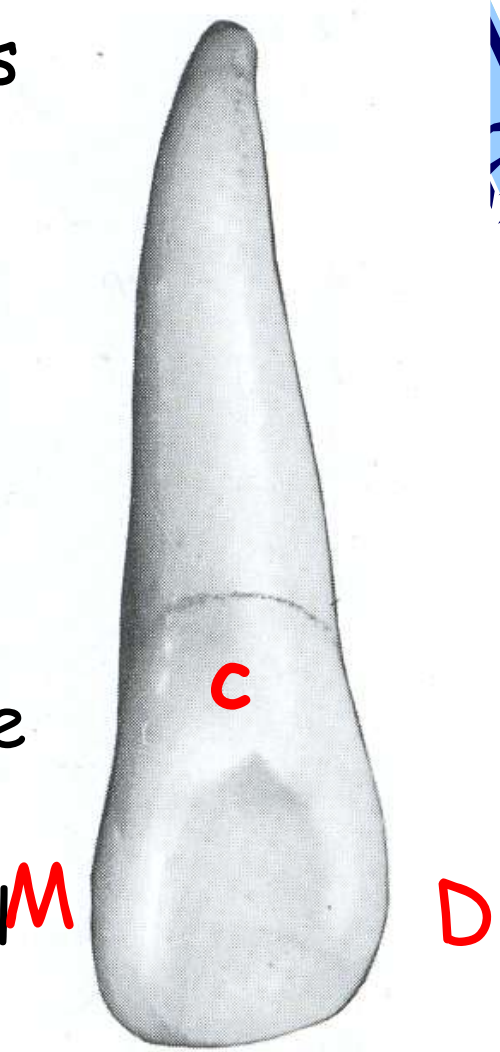
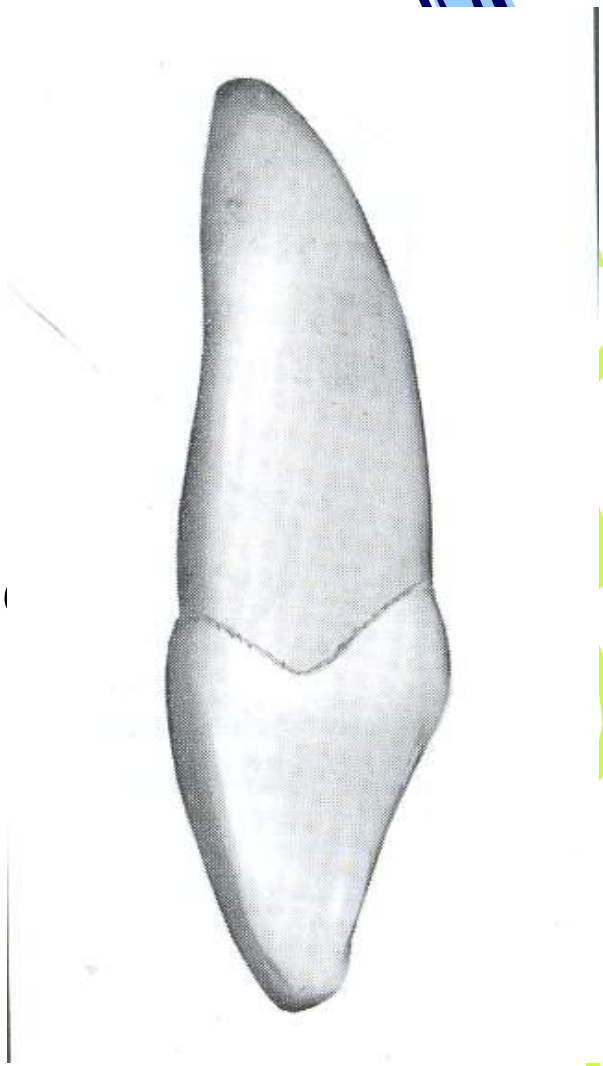


Mesial Aspect

- Is similar to central except that the root appears longer.
- The crown is shorter, root relatively longer, and the labiolingual measurement slightly lesser than central.
- The curvature is marked in th direction of incisal ridge.
- The heavy development of incisal ridge makes the incisal portion appear somewhat thicker than central.



The root appears as a tapered cone with a bluntly rounded, apical end.

As in central, a line drawn through the center of the root tends to bisect the incisal ridge of the crown.

Distal Aspect

The width of the crown distally appears thicker.

The curvature of cervical line is slightly less in depth than on mesial side.

Development groove may be commonly seen.

Incisal Aspect

The incisal aspect resembles that of central incisor but sometimes resembles canine.

The cingulum and the incisal ridge are large.

The labiolingual dimension may be greater than usual in comparison with the mesiodistal dimension.

Exhibit more convexity labially and lingually than central incisor.

REFERENCES

- Wheeler's. Text book of Dental Anatomy, Physiology and occlusion. Ninth Edition.