

## Maxillary central incisor

The maxillary central incisor or first incisor is the first tooth in the maxilla to the right or left of the median line.

The crown length of maxillary central incisor is as great as, or greater than, any of the anterior teeth, excepting the mandibular canine, & its mesiodistal width at the cervix & contact areas is greater than in any other anterior tooth. Therefore, the area of the labial aspect of the crown of this tooth is greater than any of the other anterior teeth.



The labial face of this tooth is less convex than the maxillary lateral incisor or canine, which gives the central incisors a squared or rectangular appearance.

The maxillary central incisor usually develops normally. One anomaly that sometimes occurs is a short root. Another variation is an unusually long crown.

The maxillary central incisors are the most prominent teeth in the mouth & therefore the most noticeable in the dental arches.

There are two basic forms: the first is relatively wide at the cervix when viewed from the labial aspect, in comparison with the mesiodistal width at the contact areas. The second form is relatively narrow at the cervix, in comparison with the mesiodistal width at the contact areas.

## Functions of incisor teeth:

The mandibular incisors function with maxillary incisors in: -

1. Cutting food (masticatory function).
2. Enabling correct pronunciation of speech (phonetic function).
3. Helping to support lips & maintain a good appearance (esthetic).
4. To help guide the mandible posteriorly during the final phase of closing just before the posterior teeth contact (occlusal function).

TABLE 6-1 Maxillary Central Incisor

First evidence of calcification	3-4 mo
Enamel completed	4-5 yr
Eruption	7-8 yr
Root completed	10 yr

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	10.5	13.0	8.5	7.0	7.0	6.0	3.5	2.5

\*In millimeters.

## Labial aspect:

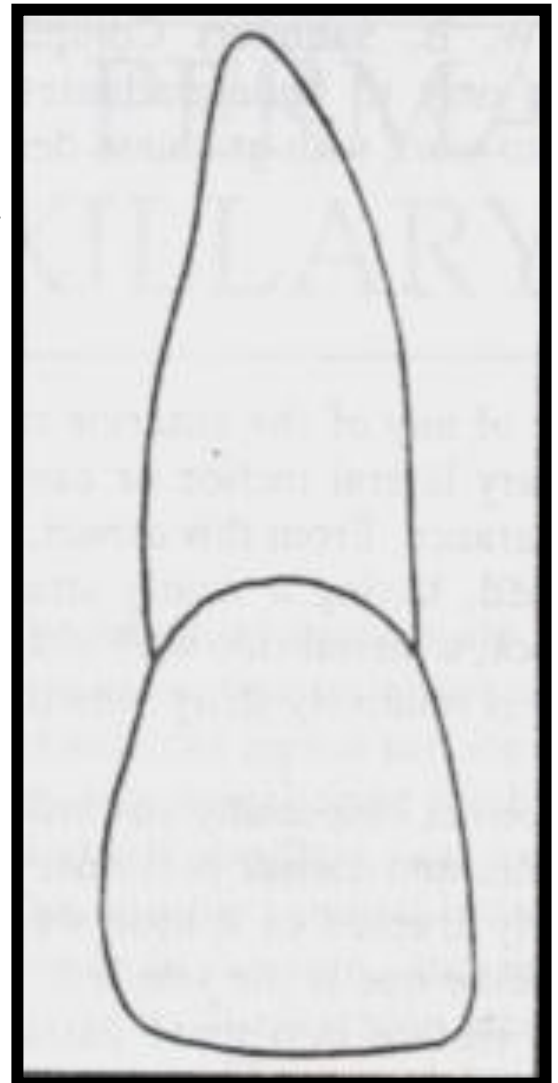
\*The mesial outline of the crown is only slightly convex, with the crest of curvature approaching near the mesioincisal angle.

\*The distal outline of the crown is more convex than the mesial outline, the crest of curvature being higher toward the cervical line near the junction of the incisal & the middle thirds.

\*The crests of curvature mesially & distally on the crown represent the contact areas of the central incisor.

\*The incisal outline is usually regular & straight in a mesiodistal direction after the tooth has been in function long enough to obliterate the mamelons.

\*Slightly rounded mesioincisal angle nearly forms a right angle. The distoincisal angle is more rounded & it is somewhat obtuse. The incisal edge slopes cervically toward the distal.



\*The cervical outline of the crown follows a semicircular direction with the curvature rootwise.

\*The root from the labial aspect is cone-shaped, in most instances with a relatively blunt apex, the outline mesially & distally being regular.

\*A line drawn through the center of the root & crown of maxillary central incisor tends to parallel the mesial outline of the crown & root.

## Lingual aspect:

The outline of the lingual aspect of maxillary central incisor is the reverse of that found on the labial aspect. However, differences are found in the surface of lingual aspect when compared with that of a labial aspect:

\*The lingual aspect has convexities & a concavity compared to the generally smooth labial surface.

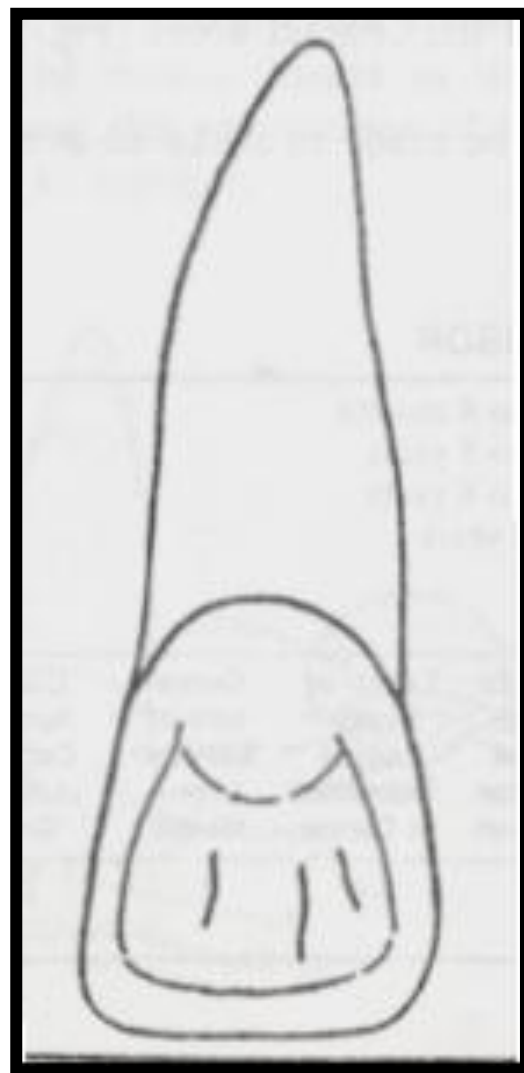
\*Immediately below the cervical line there is a smooth convexity that is called cingulum.

\*Mesially & distally confluent with the cingulum are the marginal ridges.

\*Between the marginal ridges, below the cingulum, a shallow concavity is present called the lingual fossa.

\*The linguoincisor edge is raised somewhat being on a level with the marginal ridge mesially & distally & outlining the lingual fossa incisally.

\*The crown & root taper lingually, making the mesiodistal dimensions of them are less than that on the labial surface.



## Mesial aspect:

\*The crown is wedge-shaped, or triangular, with the base of the triangle at the cervix & the apex at the incisal ridge.

\*The line drawn through the crown & the root from the mesial aspect through the center of the tooth will bisect the apex of the root & the incisal ridge of the crown.

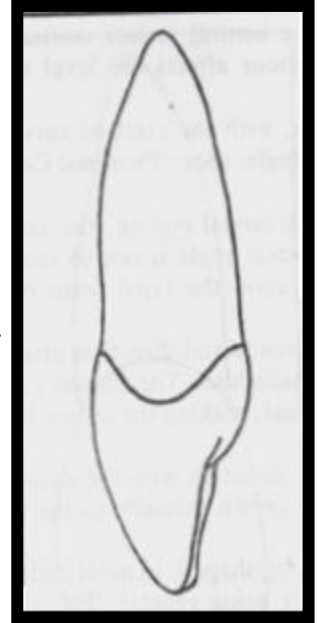
\*Labially & lingually, immediately coronal to the cervical line are the crests of curvature of these surfaces.

\*The labial outline of the crown from the crest of curvature to the incisal ridge is very slightly convex.

\*The lingual outline is convex at the point where it joins the crest of curvature at the cingulum, it then becomes concave at the mesial marginal ridge, & it becomes slightly convex again at the linguoincisor ridge & the incisal edge.

\*The cervical line curves incisally & the curvature is greater than on any surface of any other tooth in the mouth.

\*The root is cone-shaped and the apex is bluntly rounded.

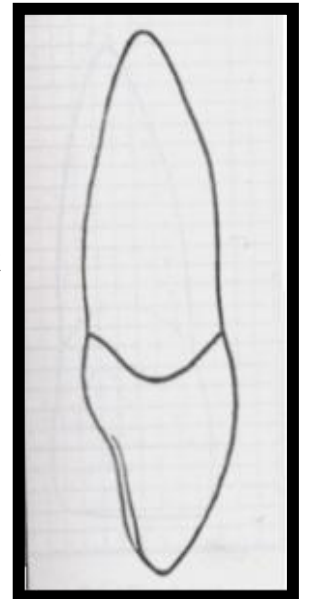


## Distal aspect:

There are little differences between the distal & mesial outlines of the maxillary central incisor.

When looking at this tooth from the distal aspect, we may note that the crown gives the impression of being somewhat thicker toward the incisal third .why? (P-123)

The curvature of the cervical line is less in extent on the distal than on the mesial surface. Most teeth show this characteristic.



## Incisal aspect:

How can we differentiate between the two terms, incisal ridge & incisal edge? (P-118)

When the specimen of this tooth is posed so that the incisal edge is centered over the root: -

\*A view of the crown from this aspect superposes it over the root entirely so that the latter is not visible.

\*From this aspect, the labial face of the crown is relatively broad & flat in comparison with the lingual surface, specially towards the incisal third. The cervical portion of the crown is convex.

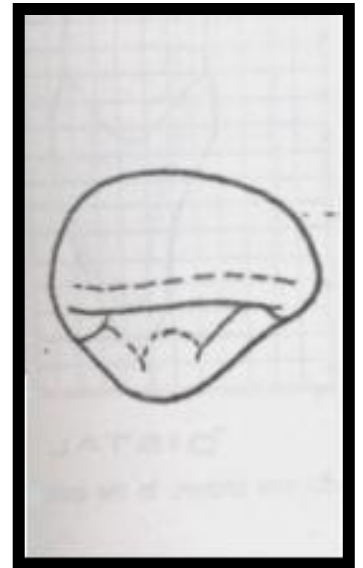
\*The incisal ridge may be seen clear & a differentiation between the incisal edge & ridge with its slop toward the lingual is easily distinguished.

\*The outline of the lingual portion tapers lingually toward the cingulum.

\*The mesiolabial & distolabial line angles are prominent from this aspect.

\*The mesiodistal dimension of the crown at the labial line angles is greater than the same dimension at the lingual line angles.

\*The crown conforms to a triangular outline reflected by the outline of the root cross section at the cervix.



**End**

