

## Lec. 6

## Dental Anatomy

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## Maxillary lateral incisor

The **maxillary lateral incisor**, or **second incisor**, is the second tooth from the median line. Since the maxillary lateral incisor supplements the maxillary central incisor in function, this tooth resembles the central incisor in functional form. It is smaller than the maxillary central incisor in all dimensions except the root length; the root is usually just as long, but not so thick.

Maxillary lateral incisor varies in form more than any other tooth in the mouth except the third molar. If the variation is too great, it is considered a developmental anomaly.

A not uncommon situation is to find maxillary lateral incisor pointed (tapered) form; such teeth are called **peg-shaped laterals**. In some individuals, the lateral incisors are missing entirely.

\*One type of malformed maxillary lateral incisor will have a **large pointed tubercle** as part of the cingulum, \*some will have **deep developmental grooves** which extend down on the root lingually with a deep fold in the cingulum, &\* some will show **twisted roots, distorted crowns, & so on.** (P-137)

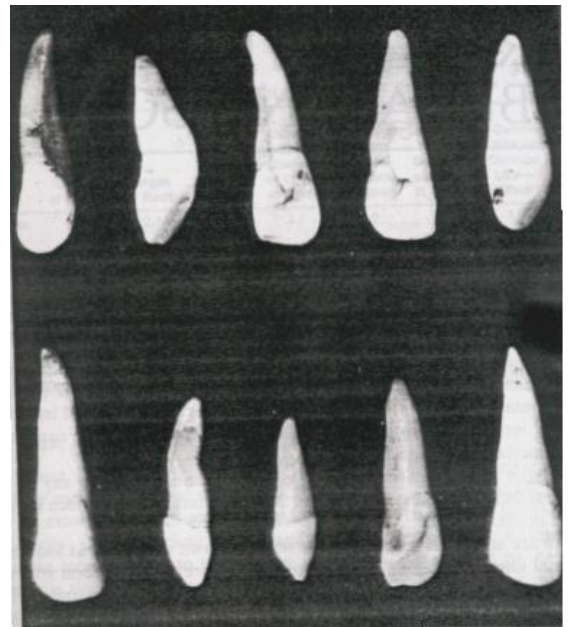


TABLE 6-2 Maxillary Lateral Incisor

|                                 |          |
|---------------------------------|----------|
| First evidence of calcification | 10-12 mo |
| Enamel completed                | 4-5 yr   |
| Eruption                        | 8-9 yr   |
| Root completed                  | 11 yr    |

MEASUREMENT TABLE

|   | CERVICOINCISAL<br>LENGTH OF<br>CROWN | LENGTH<br>OF ROOT | MESIODISTAL<br>DIAMETER<br>OF CROWN | MESIODISTAL<br>DIAMETER OF<br>CROWN AT<br>CERVIX | LABIO- OR<br>BUCCOLINGUAL<br>DIAMETER OF<br>CROWN | LABIO- OR<br>BUCCOLINGUAL<br>DIAMETER OF<br>CROWN AT<br>CERVIX | CURVATURE<br>OF CERVICAL<br>LINE—MESIAL | CURVATURE<br>OF CERVICAL<br>LINE—DISTAL |
|---|--------------------------------------|-------------------|-------------------------------------|--|---|--|---|---|
| Dimensions*<br>suggested for<br>carving technique | 9.0                                  | 13.0              | 6.5                                 | 5.0  | 6.0   | 5.0  | 3.0                                     | 2.0                                     |

\*In millimeters.

## **Labial aspect:**

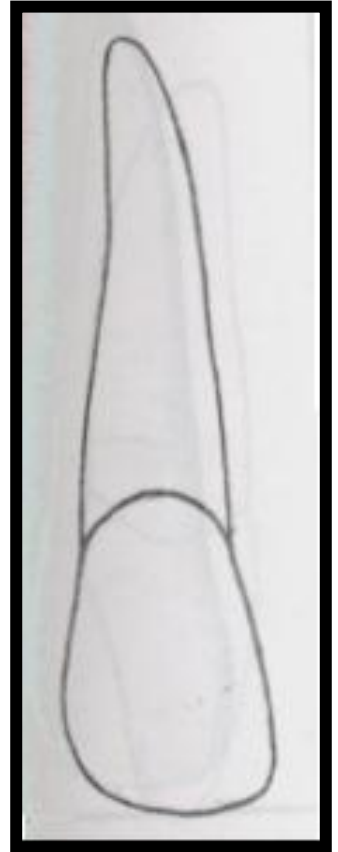
\*The crown of this tooth is relatively narrow mesiodistally, & shorter cervicoincisally than the maxillary central incisor.

\*The mesial outline of the crown resembles that of maxillary central incisor, with a more rounded mesioincisal angle. The crest of curvature mesially is usually at the junction of the middle & incisal thirds.

\*The distal outline of the crown is always more rounded than that of maxillary central incisor, & the crest of curvature is more cervical, usually at the centre of the middle third.

\*The labial surface of the crown is more convex than that of maxillary central incisor except in some square & flat-faced forms.

\*The root is usually as long if not somewhat longer than that of the maxillary central incisor.



As a rule, the root length is greater in proportion to its crown length than that of the maxillary central incisor, because of the shorter crown. That is why the root length appears longer than that of maxillary central incisor; the root is often about 1½ times the length of the crown.

\*The root tapers evenly from the cervical line to a point approximately two thirds of its length apically. In most cases it curves sharply from this point in a distal direction & ends in a pointed apex.

\*The root of maxillary lateral incisor is rather round on cross section but slender lengthwise when compared with the central incisor.

## *Lingual aspect:*

\*Mesial & distal marginal ridges are marked.

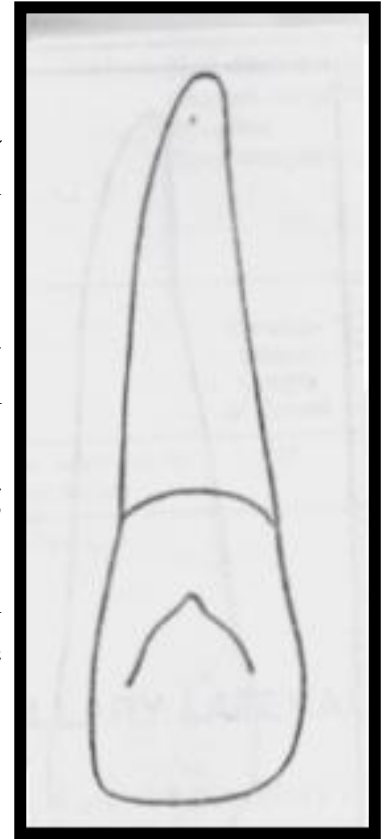
\*The cingulum is usually prominent with a tendency toward deep developmental grooves within the lingual fossa where it joins the cingulum.

\*The linguoincisor ridge is well developed.

\*The lingual fossa is more concave & circumscribed than that found on the maxillary central incisor.

\*The tooth tapers toward the lingual resembling a maxillary central incisor.

\*It is not uncommon to find deep developmental groove at the side of the cingulum, usually on the distal side which may extend up on the root.



## *Mesial aspect:*

\*The mesial aspect of the maxillary lateral incisor is similar to that of a small central incisor except that the root appears longer.

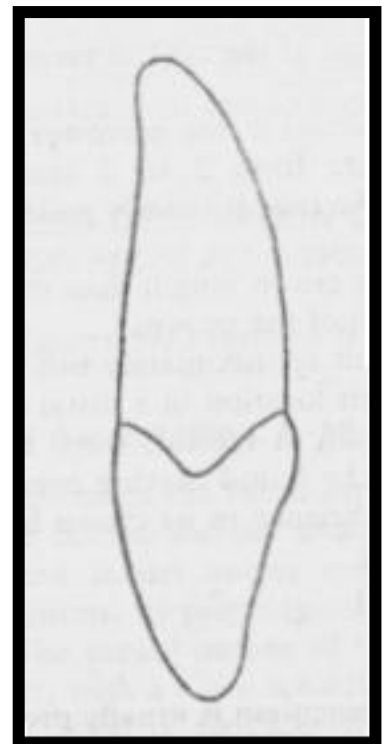
\*The labiolingual dimension of the crown & root is less than that of the maxillary central incisor of the same mouth.

\*The curvature of the cervical line is marked toward the incisal ridge, although the actual extent of curvature is less than that found on the maxillary central incisor.

\*The incisal portion appears somewhat thicker than that of the maxillary central incisor, because of the heavy development of the incisal ridge.

\*The root appears as a tapered cone from this aspect, with a bluntly rounded apical end.

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

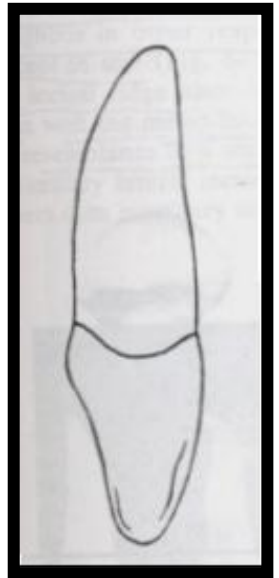


## *Distal aspect:*

-Because of the placement of the crown on the root, the width of the crown distally appears thicker than it does on the mesial aspect.

-The curvature of the cervical line is usually less in depth than on the mesial side.

-It is not uncommon to find a developmental groove distally on the crown extending on the root for a part or all of its length.



## *Incisal aspect:*

\*The incisal aspect of this tooth sometimes resembles that of the central incisor, or it may resemble that of a small canine.

\*When it resembles maxillary central incisor the difference will be in size only.

\*The cingulum & the incisal ridge may be large, & the labiolingual dimension may be greater than usual in comparison with the mesiodistal dimension. In this case the tooth resembles a small canine.

\*All maxillary lateral incisors exhibit more convexity labially & lingually from this aspect than maxillary central incisor.



End