

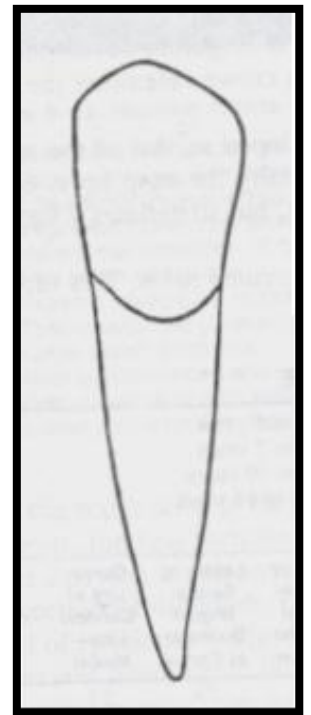
Dental Anatomy

Mandibular Canine

In describing the mandibular canine, direct comparisons will be made with the maxillary canine.

In general: -

- The crown of mandibular canine is narrower mesiodistally & labiolingually than that of maxillary canine, although it is just as long in most instances & in many instances is slightly longer.
- The root of mandibular canine may be as long as that of maxillary canine, but usually it is somewhat shorter.
- The lingual surface of the crown is smoother in the mandibular canine with less cingulum development & less bulk to the marginal ridges than the maxillary canine.
- The cusp of the mandibular canine is not so well developed as that of maxillary canine, and the cusp ridges are thinner labiolingually. Usually the cusp tip is on a line with the center of the root, from the mesial or distal aspect, but sometimes it lies lingual to the line.
- The mesial contact area being in the incisal third near the mesioincisal angle, while the distal contact area is more cervical in the junction of the middle & incisal thirds. Both mesial & distal contact areas in the mandibular canine are more incisal than that of the maxillary canine.
- A variation in the form of the mandibular canine is bifurcated roots. This variation is not rare.
- When curvature of root ends is present, it is often in the mesial direction.



Note:

When newly erupted, before the cusp has shown any wear, the crown of this tooth is often the longest in the mouth.

TABLE 8-1 Maxillary Canine

	First evidence of calcification	4–5 mo
	Enamel completed	6–7 yr
	Eruption	11–12 yr
	Root completed	13–15 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	10.0	17.0	7.5	5.5	8.0	7.0	2.5	1.5

*In millimeters.

TABLE 8-2 Mandibular Canine

	First evidence of calcification	4–5 mo
	Enamel completed	6–7 yr
	Eruption	9–10 yr
	Root completed	12–14 yr

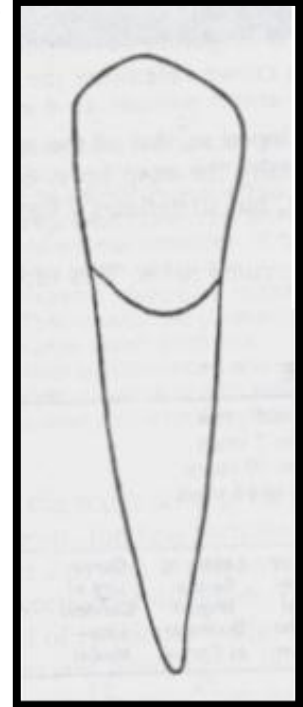
MEASUREMENT TABLE

	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	11.0	16.0	7.0	5.5	7.5	7.0	2.5	1.0

*In millimeters.

Labial aspect:

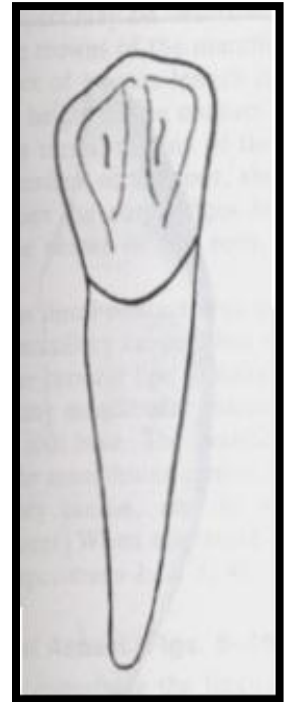
- The mesiodistal dimension is less than that of maxillary canine & it is more than either of the mandibular incisors.
- The crowns of mandibular canines appear longer than those of maxillary canines. Sometimes they are longer but the effect of greater length is due to the narrowness of the crown mesiodistally & the height of the contact areas.
- The mesial outline of the crown of the mandibular canine is nearly straight with the mesial outline of the root, the mesial contact area is near the mesioincisal angle.
- The distal outline may be slightly concave in the cervical third, it is convex in the incisal two-thirds. The distal contact area being at the junction of middle & incisal thirds.
- When the cusp ridges have not been affected by wear, the cusp angle is on a line with the center of the root. The mesial cusp ridge is the shorter.
- Many mandibular canines, from this aspect, give the impression of being bent distally on the root base.
- The root of the mandibular canine is shorter than that of maxillary canine, & its apical end is more sharply pointed. Root curvatures are infrequent, and if present it is often in the mesial direction.



Lingual aspect:

Compared with that of maxillary canine: -

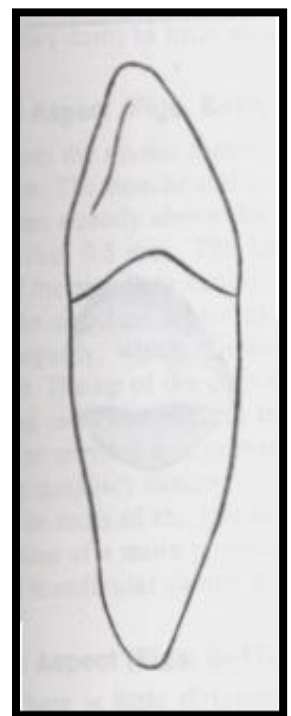
- The lingual surface of the crown is smoother & flatter simulating that of mandibular incisor.
- The cingulum is smooth and poorly developed.
- The marginal ridges are less distinct.
- The lingual ridge is less distinct except toward the cusp tip, where it is raised.
- The lingual portion of the crown is narrower relatively than that of maxillary canine.



Mesial aspect:

Compared with the maxillary canine:

- This tooth has less curvature above the cervical line labially and lingually including the cingulum.
- The cingulum is not pronounced and the incisal portion of the crown is thinner labiolingually, which allows the cusp to appear more pointed and the cusp ridge more slender.
- The tip of the cusp centered over the root, sometimes placed lingually.
- The cervical line curves more toward the incisal portion than that of the maxillary canine.
- The roots of the maxillary and mandibular canine are similar from this aspect, with the possible exception of a more pointed root tip.
- The developmental depression mesially on the root is more pronounced & sometimes very deep.

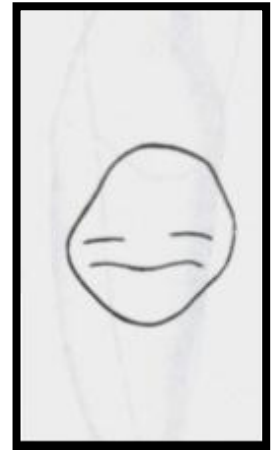


Distal aspect:

There is little difference from this aspect between mandibular & maxillary canines except those common features mentioned under mesial aspect.

Incisal aspect:

- Similar to maxillary canine, the mesiodistal dimension is less than the labiolingual dimension, but the outlines of the mesial surface are less curved.
- The crown tapers lingually making the lingual portion narrower than the labial.
- The cusp tip is near the center labiolingually, or it may be lingual to the center.
- The distal cusp slope is directed slightly lingually from the cusp tip, placing the distoincisor angle in a position lingual to the position of the cusp tip.
- On the lingual outline, the crest of curvature of the cingulum is centered or slightly distal to center. Thus, the mesial marginal ridge is longer than the distal marginal ridge because of the distolingual twist (which places the distal cusp ridge to the lingual) & the slight distal placement of the cingulum.



END