

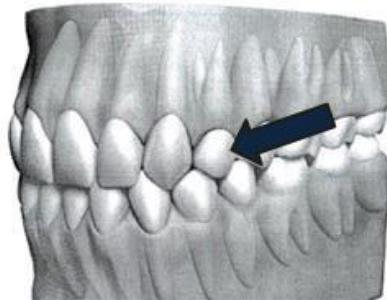
Dental Anatomy

Lec 3

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Maxillary Premolars

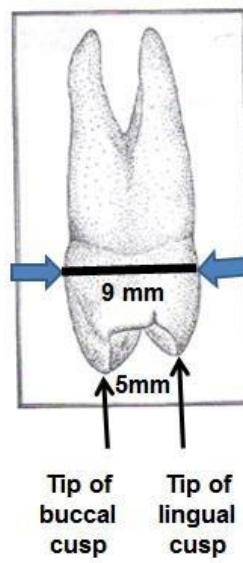
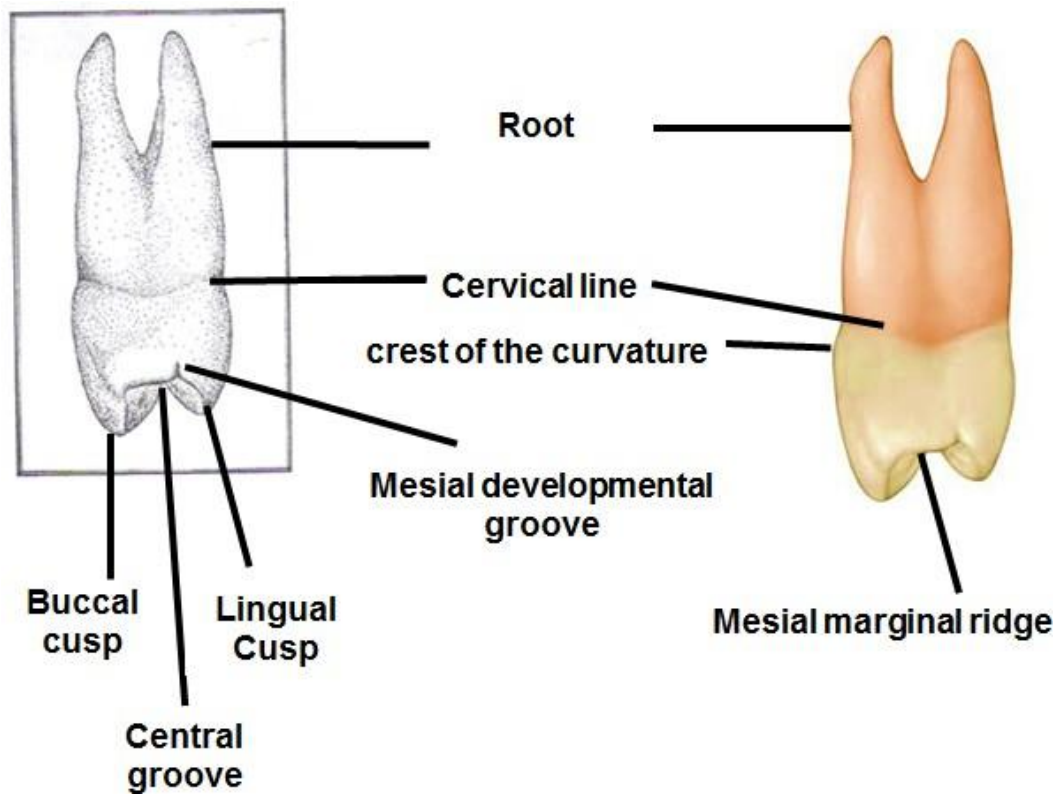
Maxillary First Premolar



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	8.5	14	7	5	9	8	1	0

Mesial Aspect

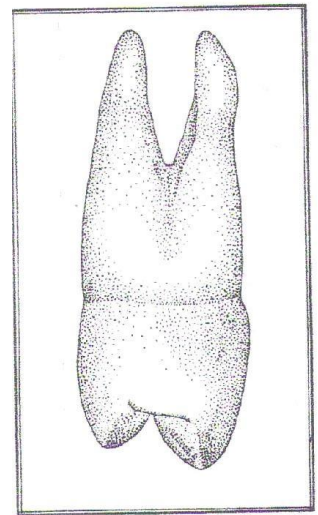
1. The crests of curvature of the bucco-lingual measurement of the crown represent by the two points are placed at one third of the distance near the cervical line. The tip of the buccal cusp is located at one third of the measurement between these two points. The tip of the lingual cusp is located little more than half (5 mm) the bucco-lingual measurement of the crest of the curvature of the crown (9 mm).
2. The buccal outline of the crown is slightly convex from the crest of curvature to the tip of the buccal cusp. The similar outline from the crest of curvature to the tip of the lingual cusp.
3. The slope between the cusps represent by the outline from the tips of the cusps on the occlusal surface to the central groove at the point at half the distance between the cusps tips and little more than one fourth of the crown length.
4. There is well-defined developmental groove on the mesial marginal ridge which is the characteristic of the mesial surface.
5. The curvature of the cervical line is slight curve towards the occlusal surface about 1mm.



Distal Aspect

The distal aspect has the same outline as the mesial with some differences which are:

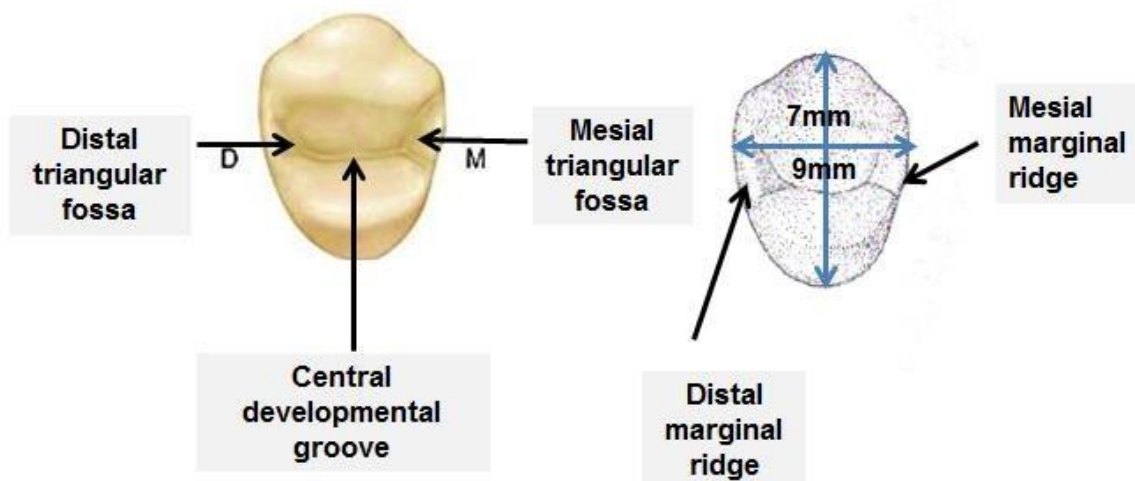
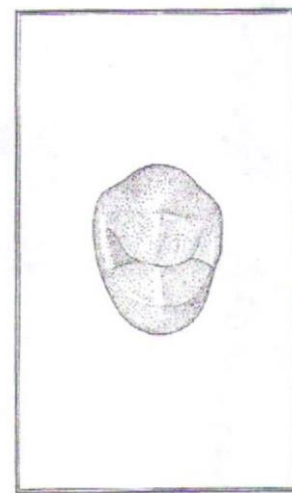
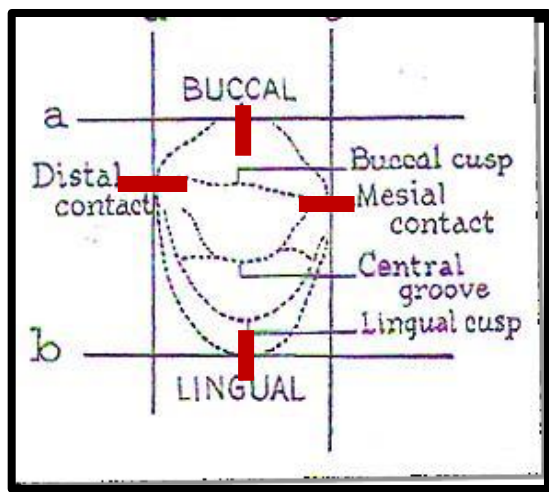
1. The curvature of the cervical line is less distally than mesially.
2. There is no developmental groove crossing the distal marginal ridge.



DISTAL

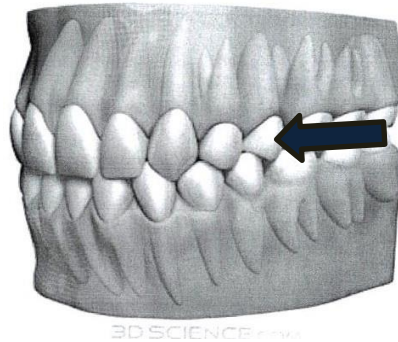
Occlusal Aspect

1. It looks like an unequal hexagon (six-sided figure). The crest of curvature of the buccal surface is in the center, while in the lingual surfaces the highest point of curvature is little mesial to the center. The mesial contact area is about one third of the distance bucco-lingually while the distal contact area is about one fourth of the distance bucco-lingually.
2. The **central developmental groove** divides the crown into the buccal part and a lingual part which extends from the distal marginal ridge to the mesial marginal ridge.
3. There are **two** triangular fossae, one **mesial triangular fossae** and other **distal triangular fossae**.
4. In the mesial and distal triangular fossae, there are two developmental grooves **mesio-buccal and disto-buccal grooves** that join the central groove.
5. The bucco-lingual dimension is greater than the mesio-distal dimension.



Maxillary Second Premolar

Maxillary second premolar is the fifth tooth from the median line in the maxilla.



The outline form of all aspects is similar to the maxillary first premolar with following variations:

1. The maxillary second premolar is less angular.
2. The occlusal surface is more rounded or oval in shape and it is not so smooth as that of the first premolar showing more of wrinkled appearance.
3. The buccal and lingual cusps are nearly in the same length but the lingual cusp is shorter.
4. The central developmental groove is shorter and more irregular with more supplemental grooves on the occlusal surface.
5. There is no marked developmental groove crossing the mesial marginal ridge.
6. The mesial contact area is in the center of the crown bucco-lingually while the distal contact area is more-off the center and toward the buccal surface.
7. The tooth has usually has one root.

