

Maxillary First Premolar



Buccal



Palatal

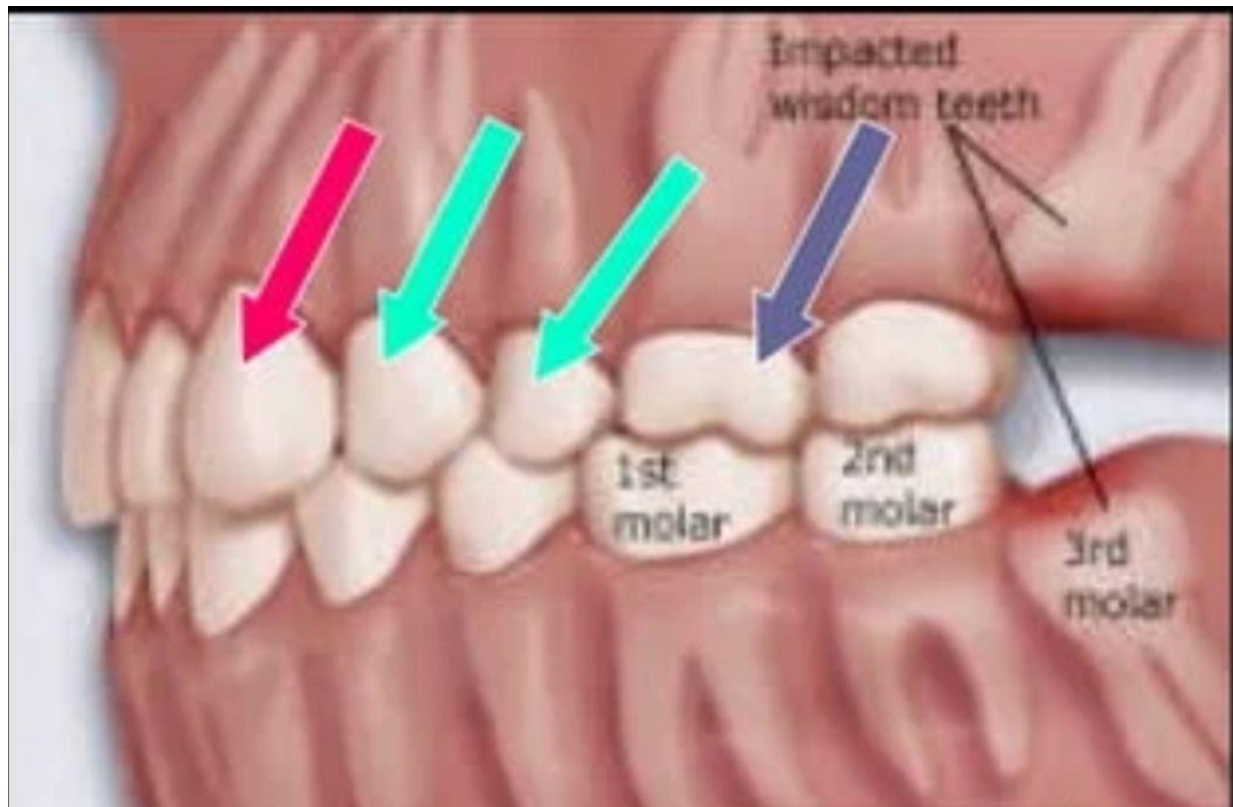


Mesial



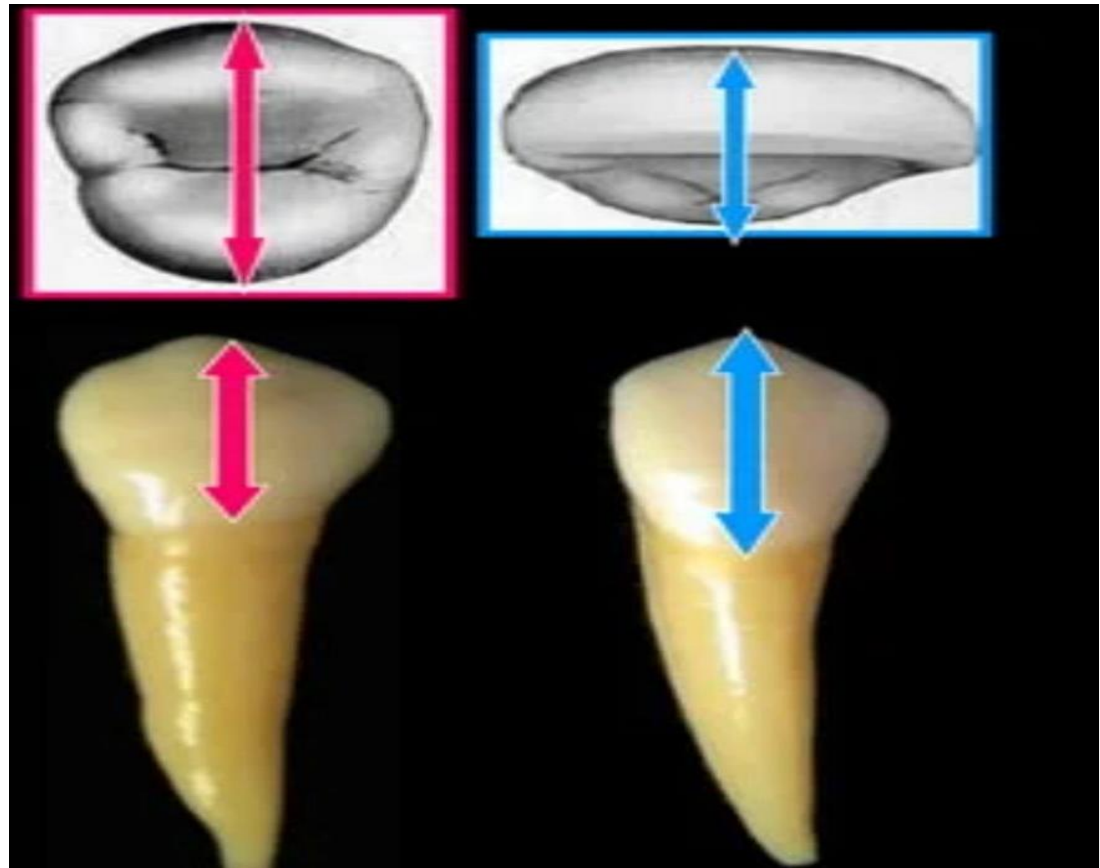
Distal

1. Maxillary premolars (bicuspid) (We have 4 maxillary premolars; two in right and two in left side. Mesial to them is the canine and distal the molars present. They have two cusps one buccal and one lingual .



Premolars are posterior teeth because:

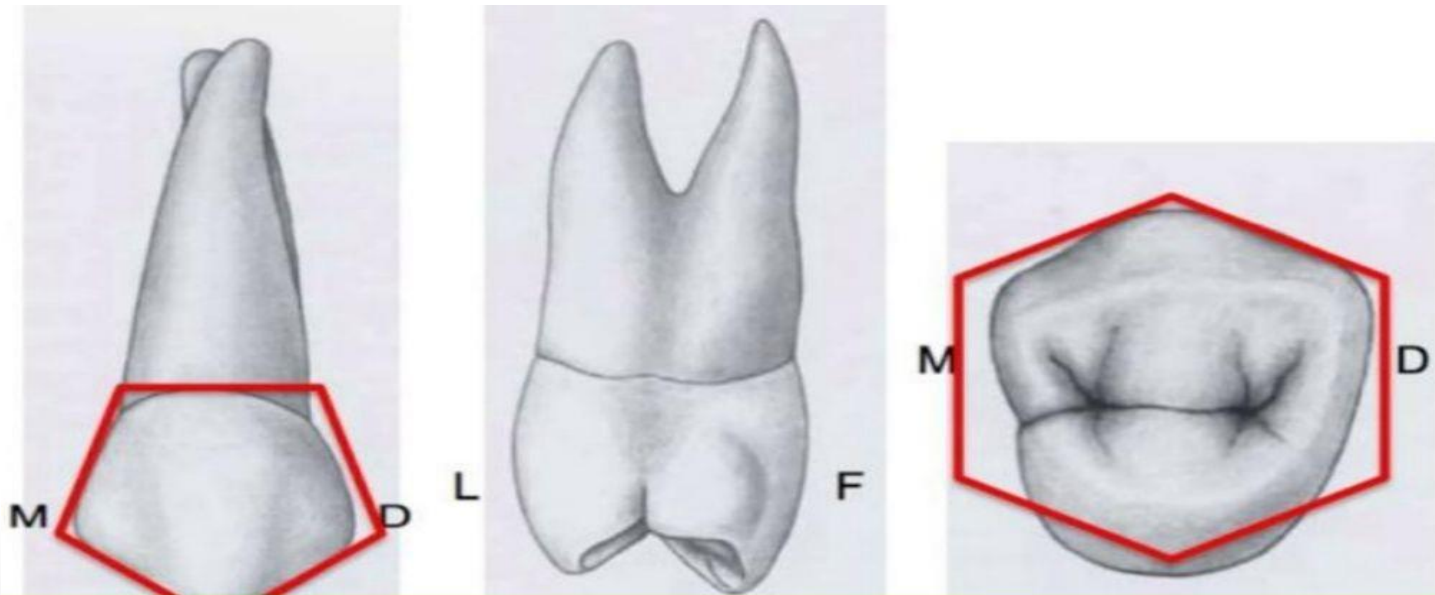
- 1-They have occlusal surface instead of incisal ridge.
- 2-The bucco-lingual measurements are greater than the anterior teeth.
- 4-The crown is shorter than the anterior teeth.
- 5-The cervical curvature is less than the anterior.



Maxillary First Premolar:

Principle identifying features :

1. Two sharply defined cusps , buccal cusp (1mm) longer than the lingual cusp.
2. Mesial slope of the buccal cusp is longer than the distal slope
3. Two roots ,buccal and palatal , and the bifurcation is at the middle third of the root .
4. Developmental depression on the mesial surface of the crown extending to the root .
5. Central developmental groove interrupts the mesial marginal ridge .



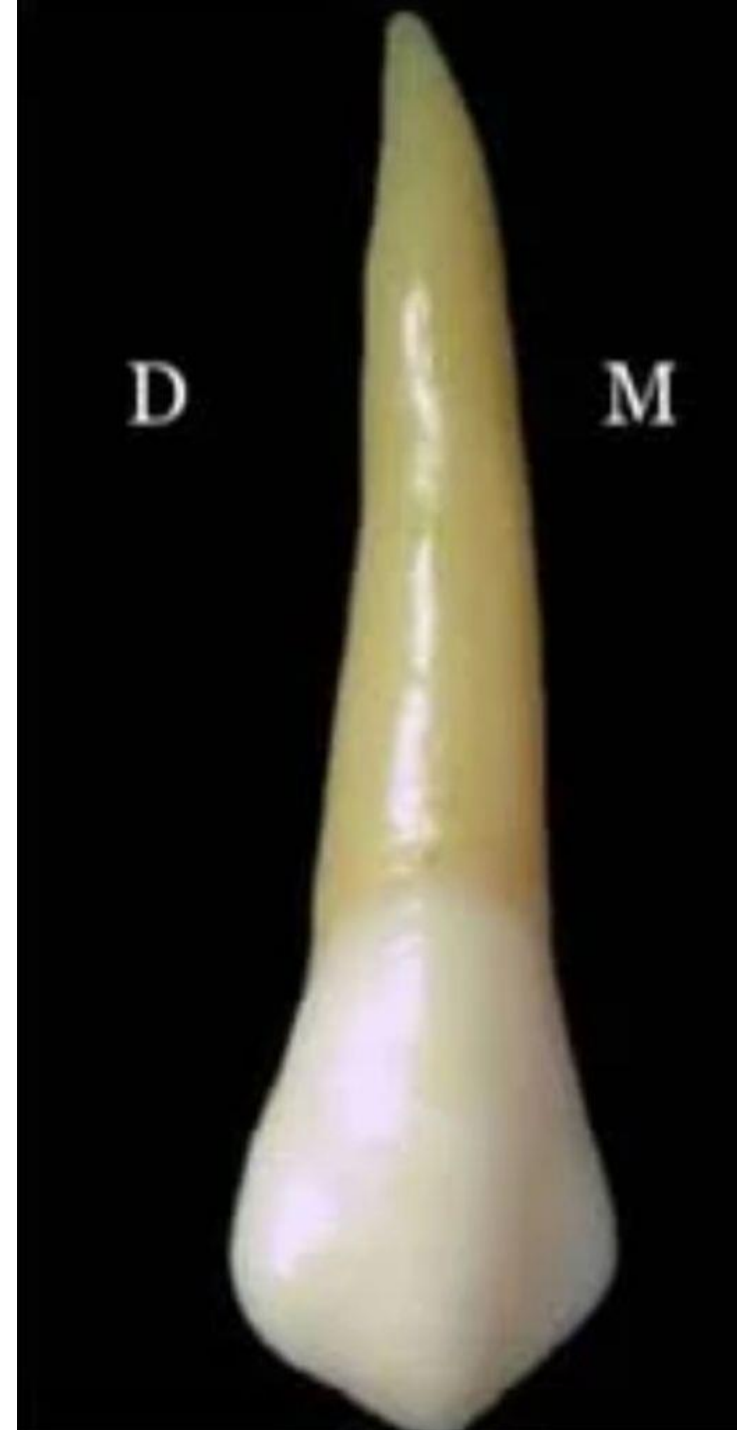
Buccal Aspect Crown:

Geometrical outline

Trapezoid in shape.

The outline

- Mesial outline is slightly concave till the middle half of the crown (the contact area).
- The distal outline is straight or slightly concave till the contact area more occlusally .
- The mesial slope is longer than the distal slope.



Surface anatomy :

The elevations

- 1.The cervical ridge
- 2.The buccal ridge

The depressions

Two developmental grooves mesial and distal to the buccal ridge.

The root The buccal root is similar to that of the canine but shorter.



Lingual aspect

Similar to the buccal aspect but in a reverse manner

-The lingual cusp is shorter than the buccal cusp by 1mm.

-The mesial and the distal slopes of the lingual cusp have right angle.

-The lingual surface is spheroid and has a less developed lingual ridge than the buccal ridge.

-Cervical line is slightly convex or even straight.



Mesial aspect

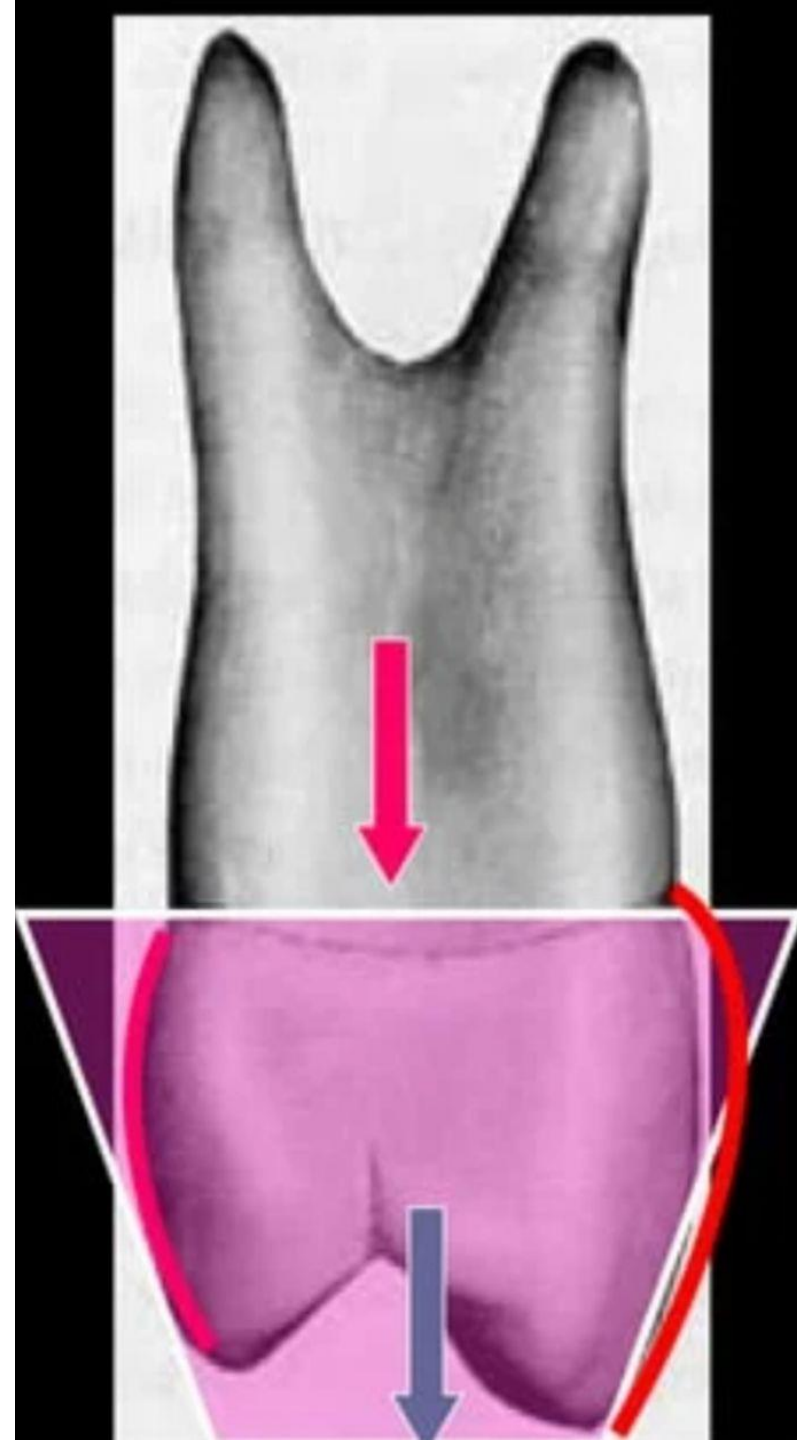
Geometrical outline

- Trapezoid in shape.
- The short side occlusally.
- The long side cervically.

The outline

-**The buccal outline** is convex till the **buccal cusp** tip with the maximum convexity at cervical 3rd .

-**The lingual outline** is convex with the maximum convexity at **the center** of the crown .



The lingual cusp is shorter than the **buccal cusp**.

-**The mesial marginal ridge** present at the junction of the occlusal and middle thirds

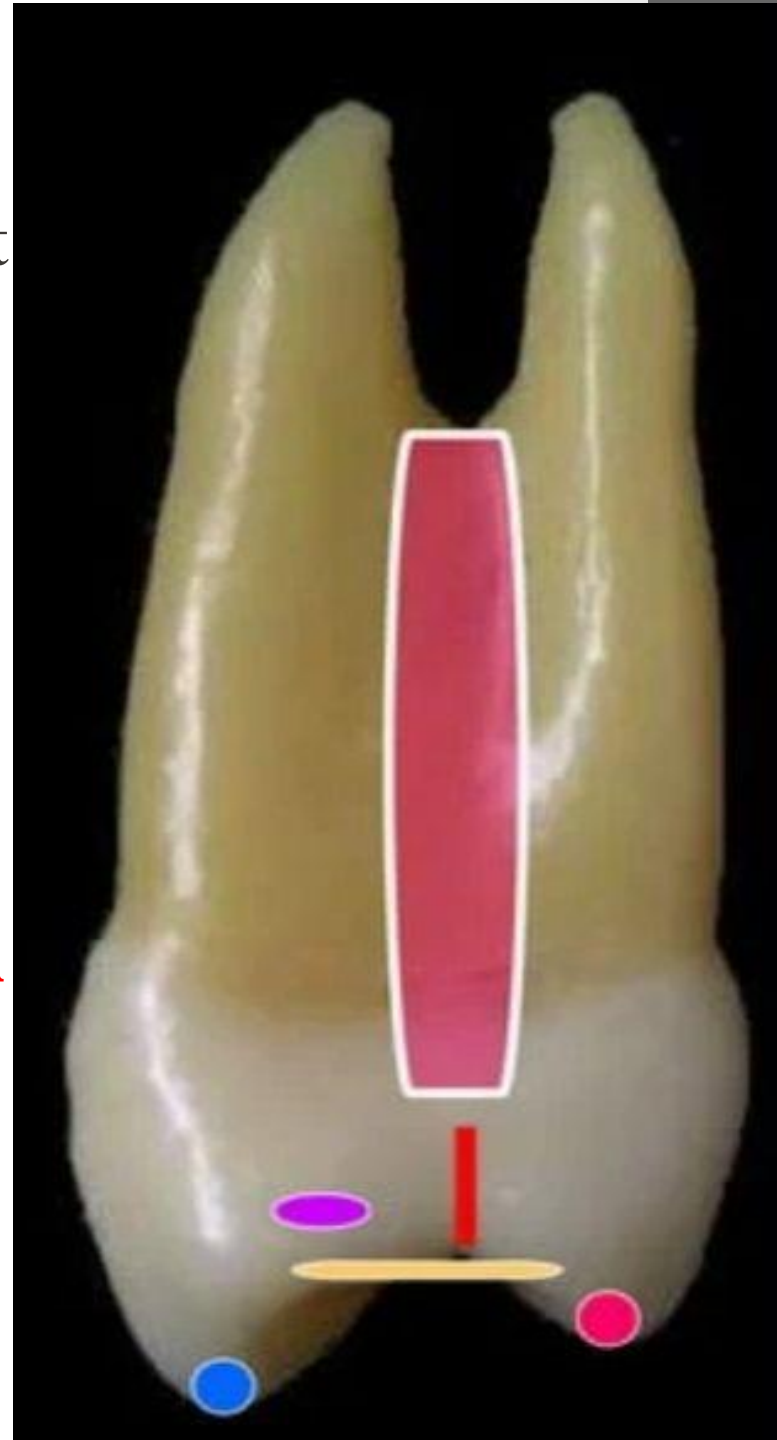
-**The mesial contact area** present at the middle third.

Surface anatomy

1-**Mesial developmental groove** crossing the mesial marginal ridge.

2-**Mesial developmental depression** above the contact area and continue on the root surface

3-The bifurcation of the root present at the middle of the root length.



Distal aspect

The distal surface differs than the mesial in:

1-No developmental groove crossing the distal marginal ridge.

2-No developmental depression on the crown or root.

3-The contact area is broader.

4-The cervical line is less curved or straight.

5-The bifurcation present at apical third.



Occlusal aspect

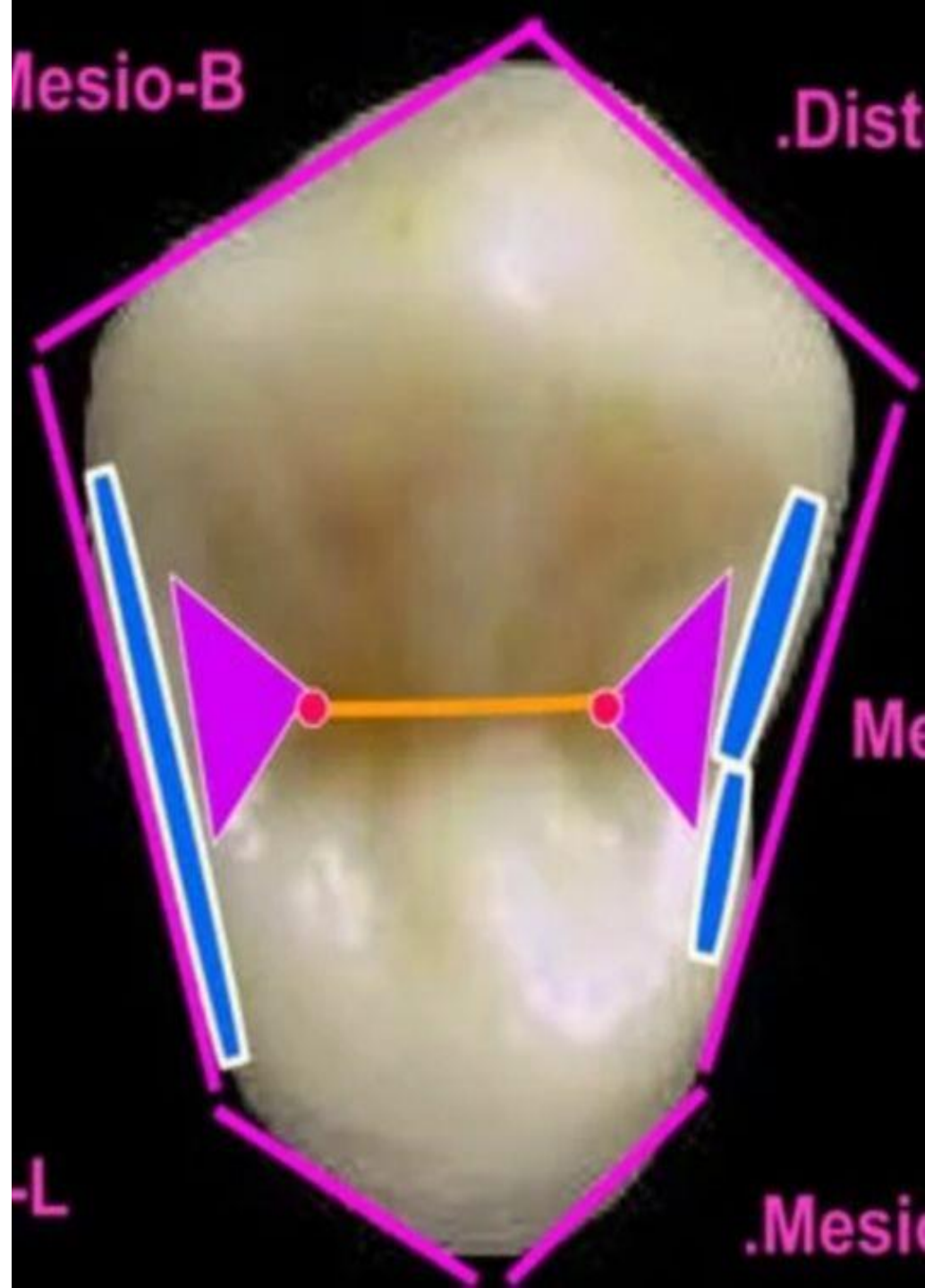
It is hexagonal in shape

- **Central developmental groove.**

- **Distal and mesial triangular fossa.**

- **Distal and mesial developmental pit.**

- **Distal and mesial marginal ridges.**



The buccal and lingual cusps have triangular ridge.

-The mesial marginal ridge is crossed by mesial developmental groove.

-**The bucco-lingual measurement** is larger than the **mesio-distal measurement**

