Anatomical land mark of the crown

In order to study an individual tooth intelligently ,we must be able to recognize all landmarks of importance by name .

1

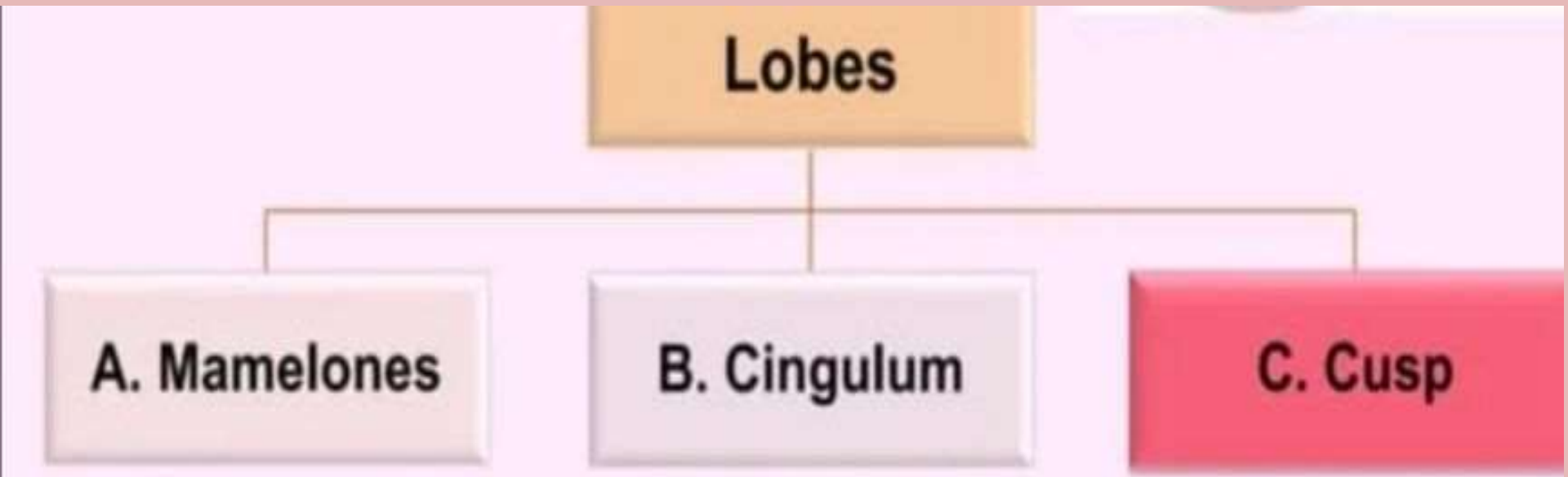
Elevated land mark

2

Depressed land mark

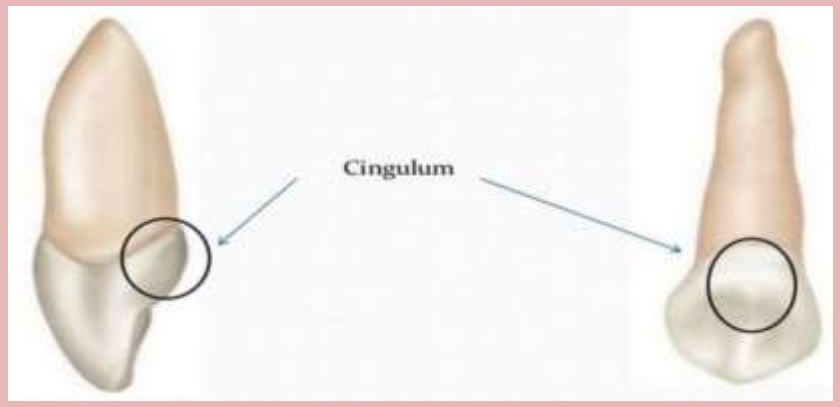
Elevated anatomical land mark of the crown

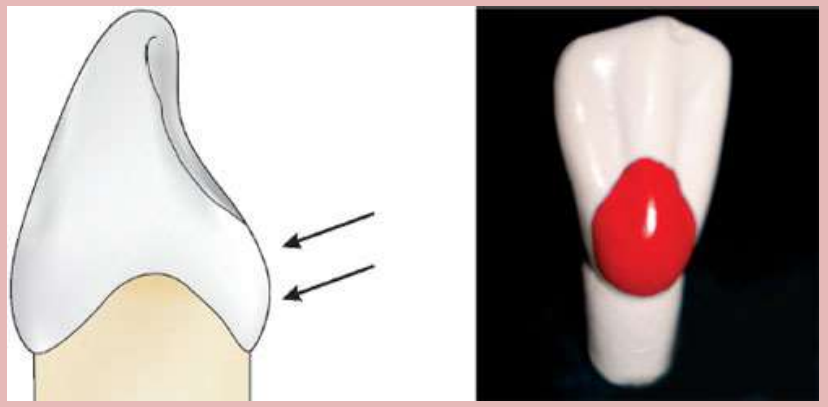
1. Lobes : **is one of the primary centers of growth and calcification present during the crown development .Which include (mamelon , cinglum and cusps).**



a. Mamelon : is any one of the three primary rounded projections in the incisal ridge of newly erupted incisors teeth .It soon wears away as a result of tooth contact .

B . Cingulum : is a rounded projection , making the lingual bulk at the cervical third of the crown in the anterior teeth .





C. Cusp: is an elevation on the crown could be round or pointed ,it is present on the occlusal surface of molar , premolar , and on incisal surface of canines.

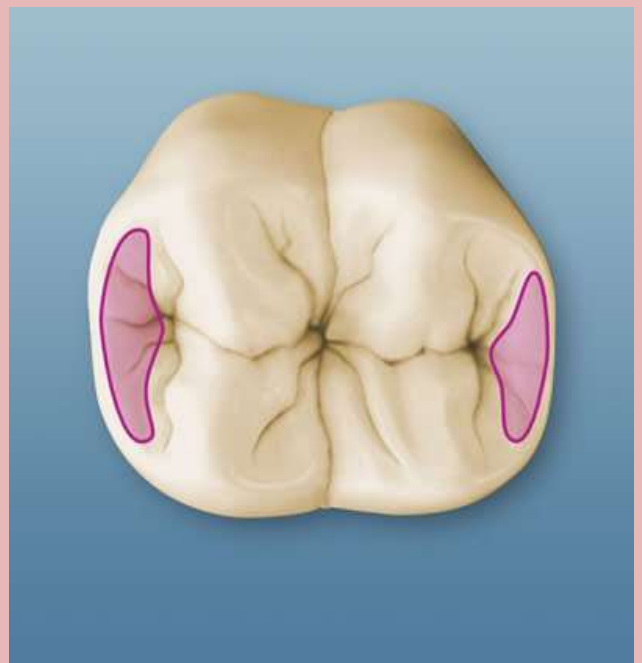
2-TUBERCLE : it is a smaller elevation on some portion of the crown produced by an extra formation of enamel it is excessive formation of enamel only.

* Tubercle differs from cusp , it is formed of enamel only while cusp is formed of pulp horn covered by dentin and enamel

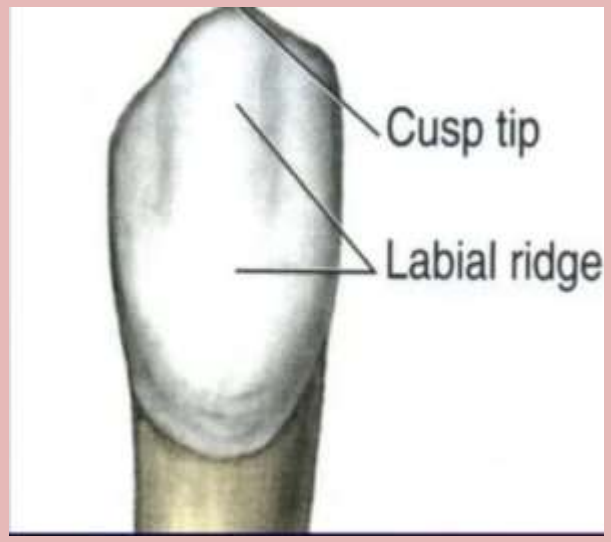
3-Ridge : is a linear elevation on the crown defined according to its location and shape

According to its location

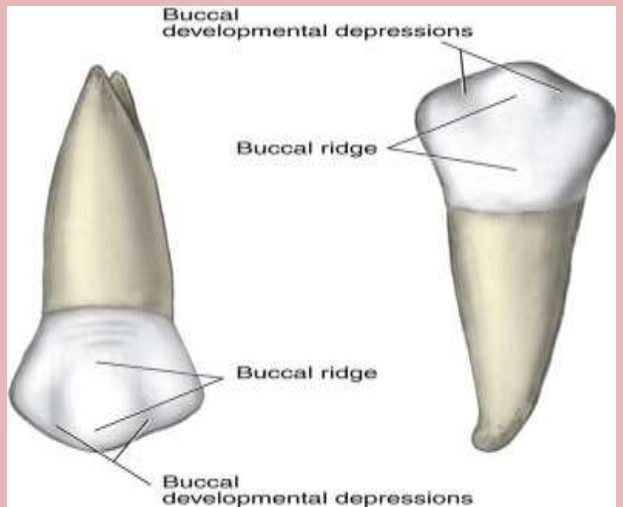
a. Proximal (marginal) ridge : it is the mesial and distal elevated margins in the lingual and occlusal surfaces of both anterior and posterior teeth respectively



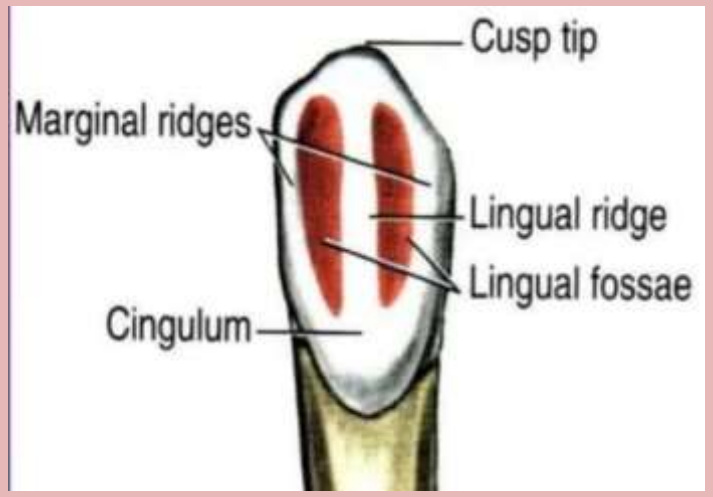
b. Labial ridge : is a pronounced labial development of the middle lobe of anterior teeth .



c.Buccal ridge : it is the linear vertical pronounced buccal development of the middle lobe of premolars .

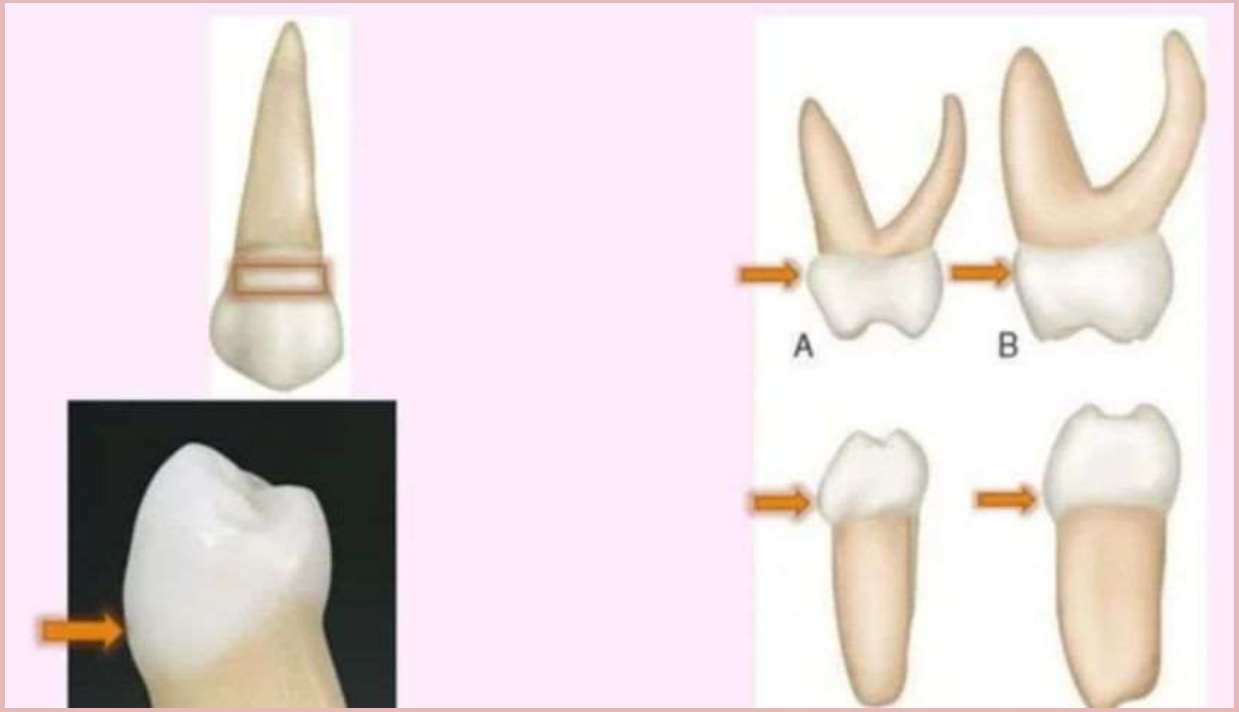


d. Lingual ridge : it extends vertically from the Cingulum to cusp tip of canine , thus , dividing its lingual fossa into mesial and distal fossa



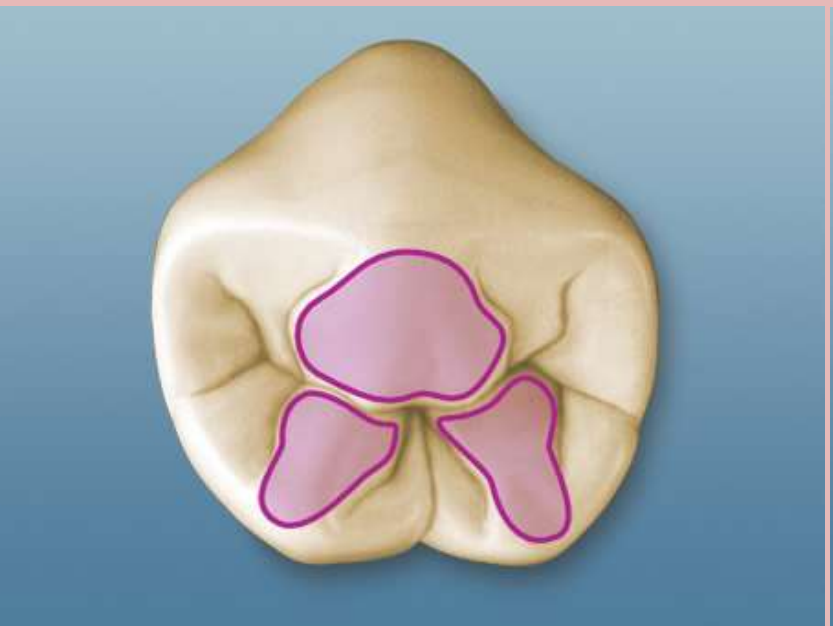
e. Incisal ridge : is a lingual projection at the incisal margin of the newly erupted incisors . The ridge is transformed into edge by the attrition .

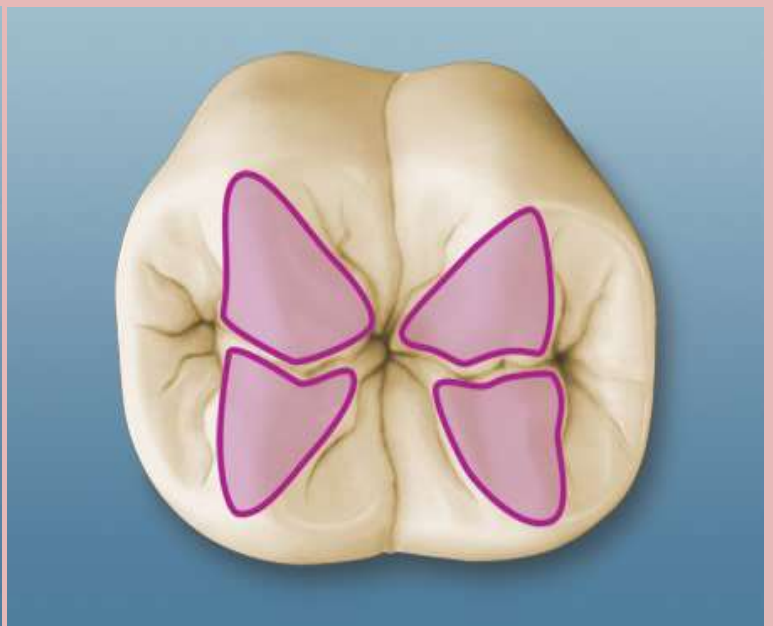
f. Cervical ridge : is a diffuse mesiodistal excessive formation of enamel at the cervical third of the crown .



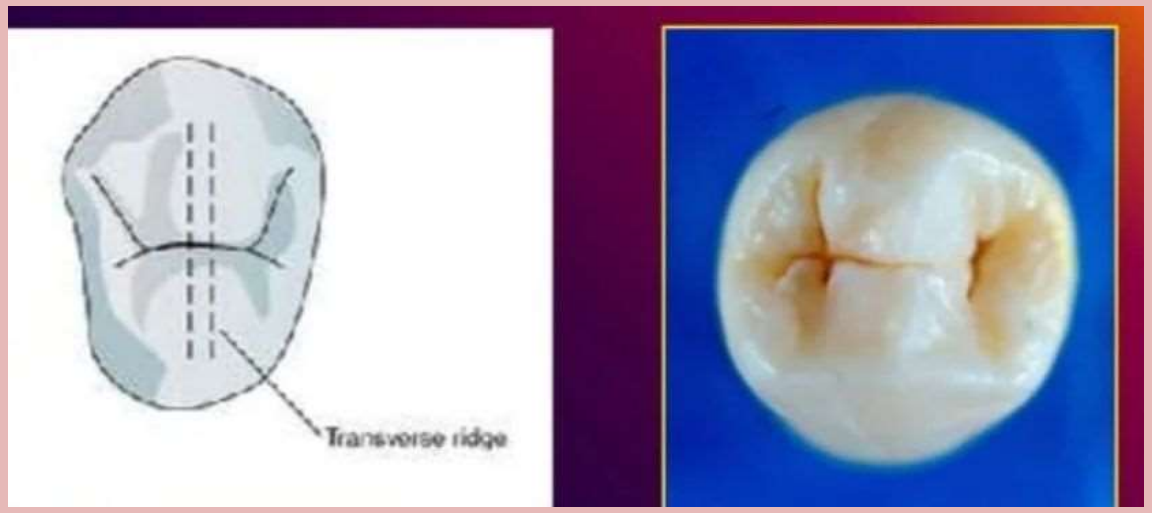
According to its shape

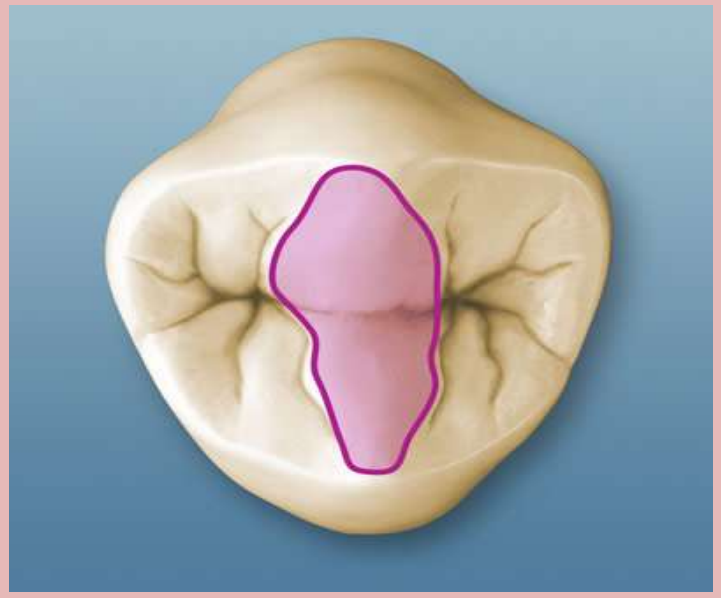
a. Triangular (occlusal) ridge : it descend from the cusp tip of posterior teeth toward the central part of occlusal surface . It is formed as the occlusal sides of the cusp ridge meet together to form line angle .



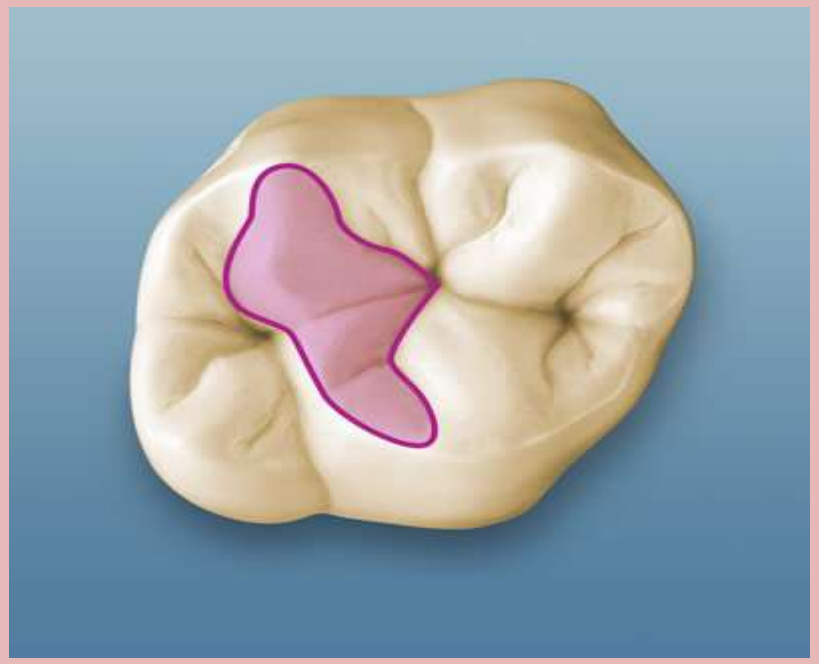


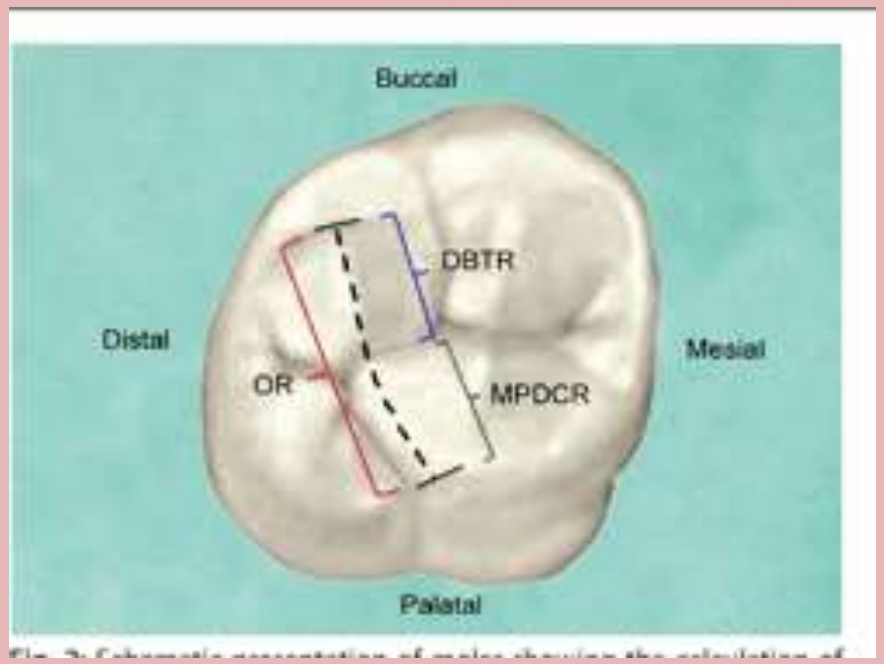
b. Transverse ridge : is the union of the directly opposing buccal and lingual triangular ridges buccolingually crossing the occlusal surface of posterior teeth





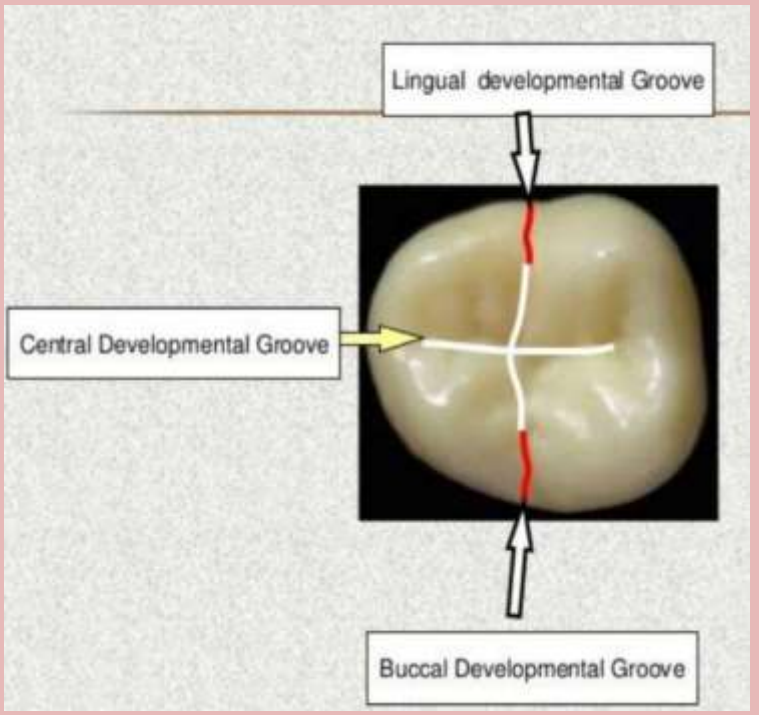
C. Oblique ridge : is the union of the non-opposing buccal and lingual triangular ridges obliquely crossing the occlusal surface of maxillary molars from the mesiolingual cusp to the distobuccal cusp

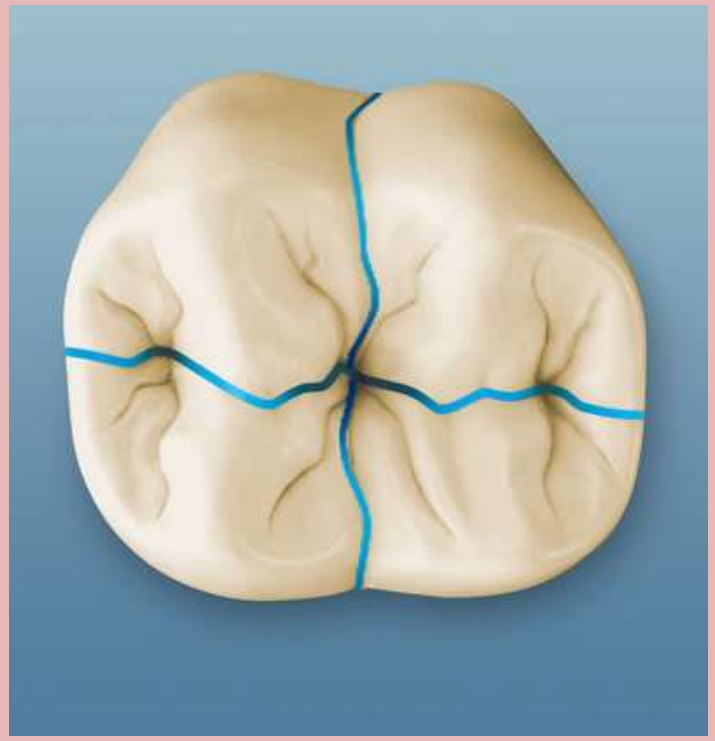




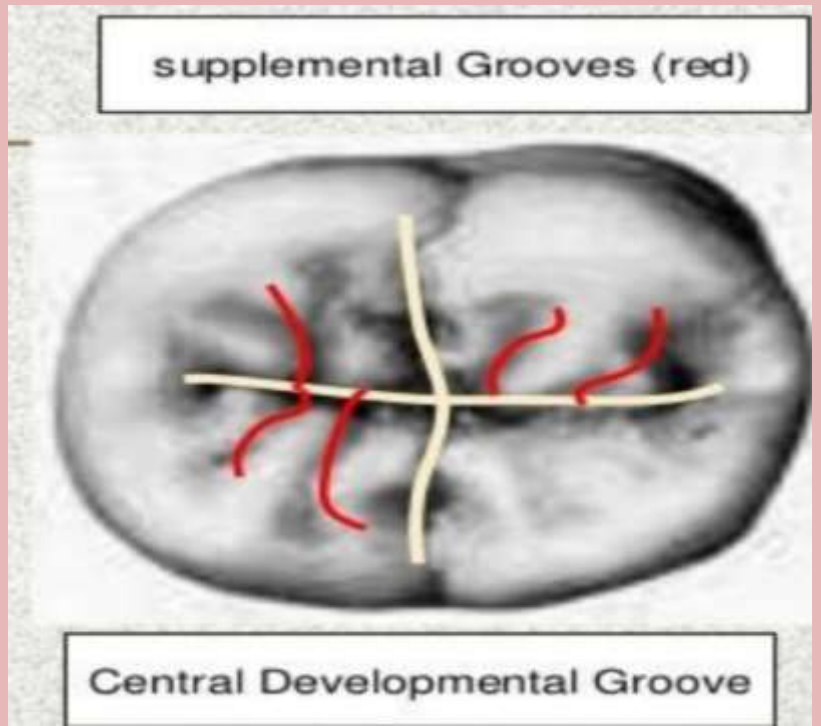
Depressed anatomical land mark of the crown

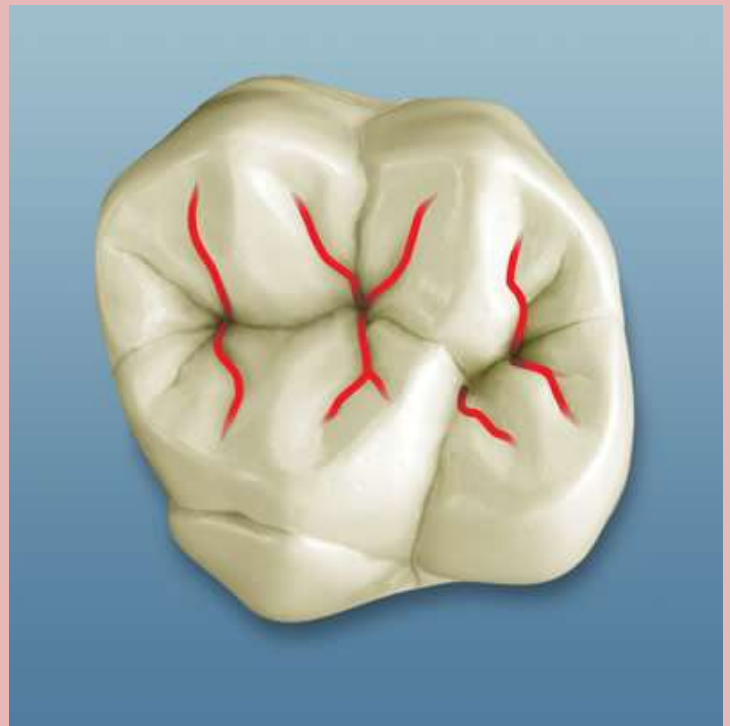
1. Developmental groove : is a deep linear depression in the occlusal surface and may extend buccally , lingually or mesially and demarcate the line of lobes fusion





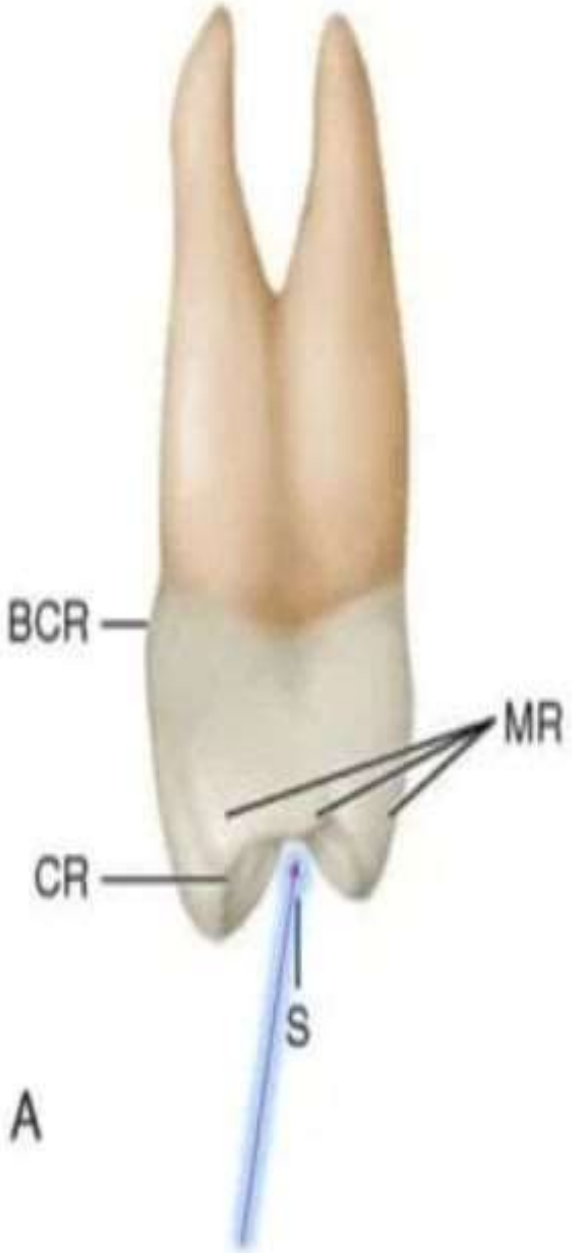
2. Supplemental groove : is a shallow linear depression in the occlusal surface , which does not demarcate the line of lobes fusion , but represents a branch from the developmental groove



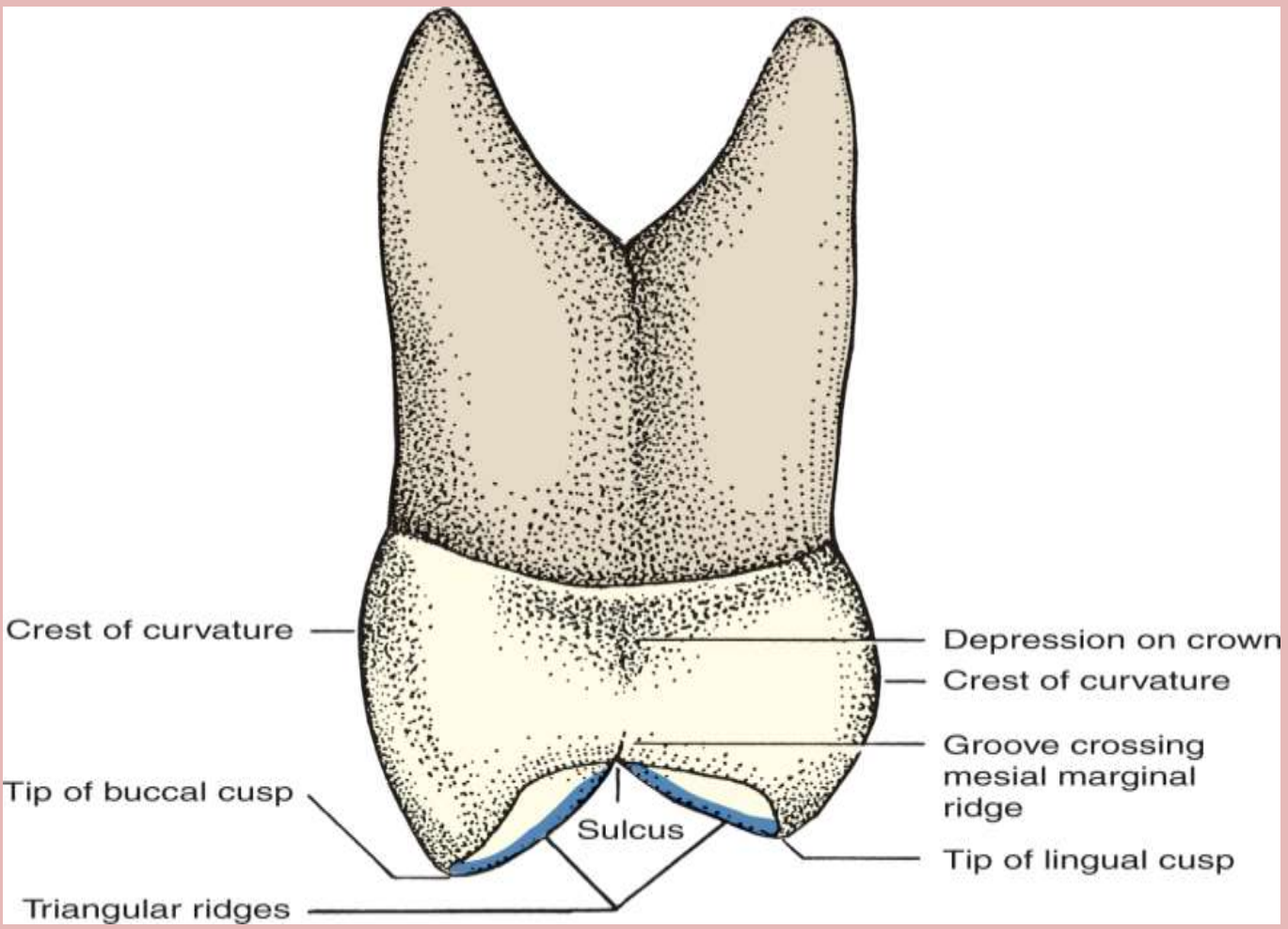


3. Sulcus

- It is a broad depression or valley on the occlusal surfaces of posterior teeth.
- It is inclines meet in a developmental groove and extend to the cusp tips.

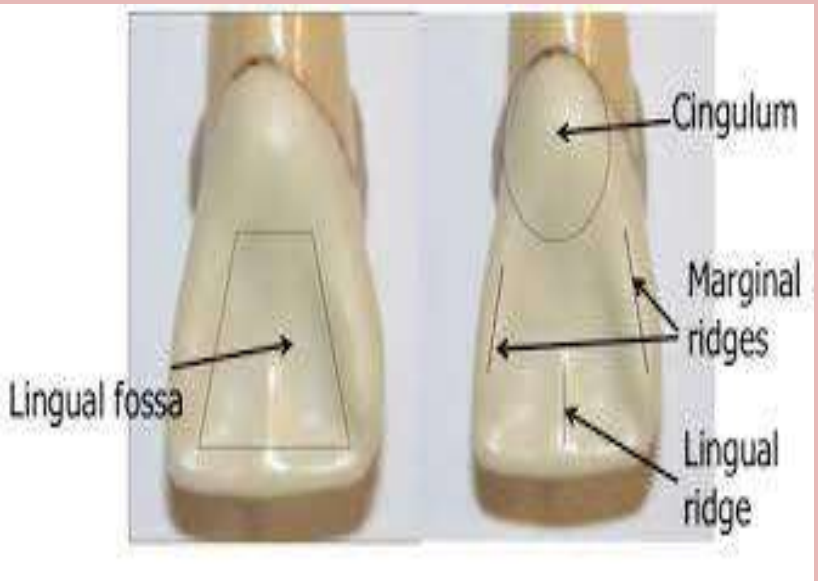


3-sulcus:

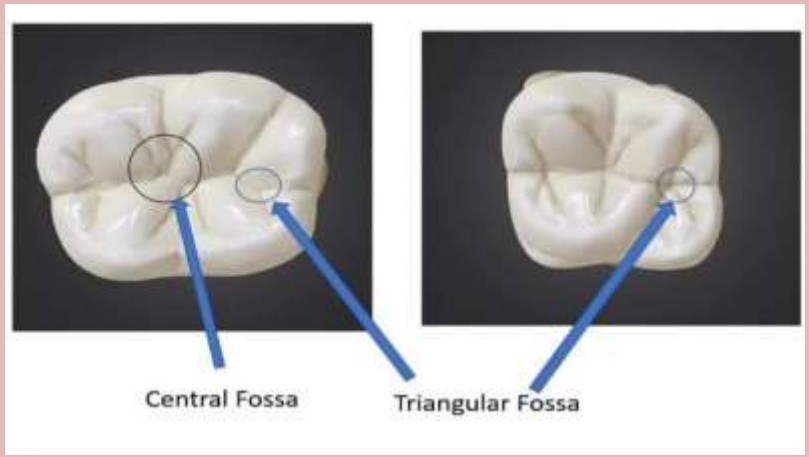

Crest of curvature
Depression on crown
Crest of curvature
Groove crossing mesial marginal ridge
Tip of buccal cusp
Sulcus
Tip of lingual cusp
Triangular ridges

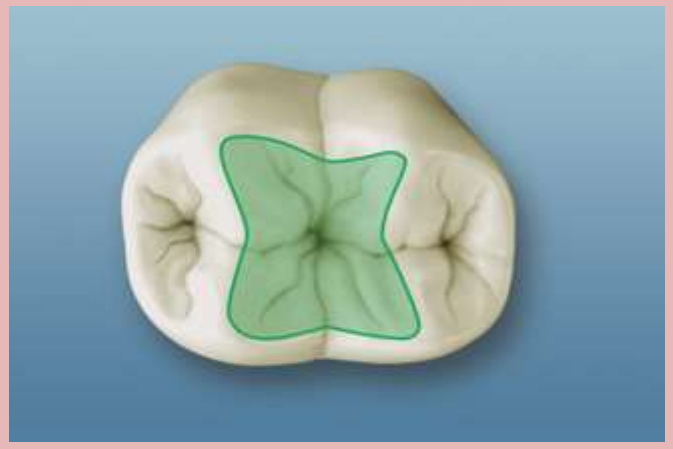
4. Fossa : it is an irregular depression or concavity .

(a) Lingual fossa: it is located on the lingual surface of anterior teeth .

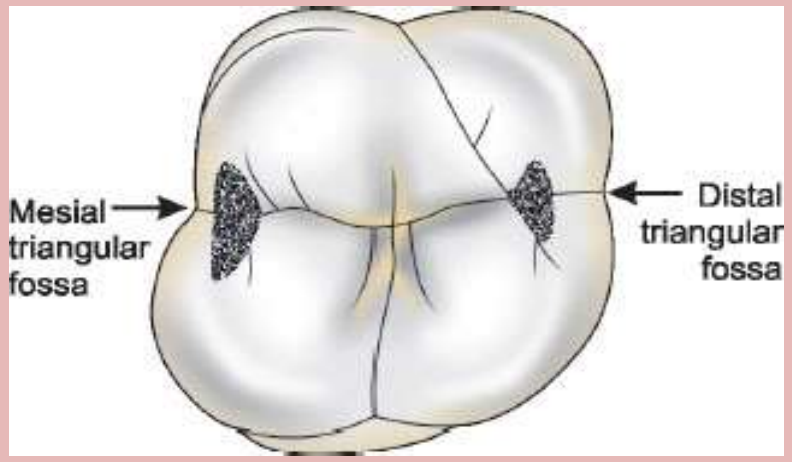


(b) Central fossa : It is located on the occlusal surface of molars.



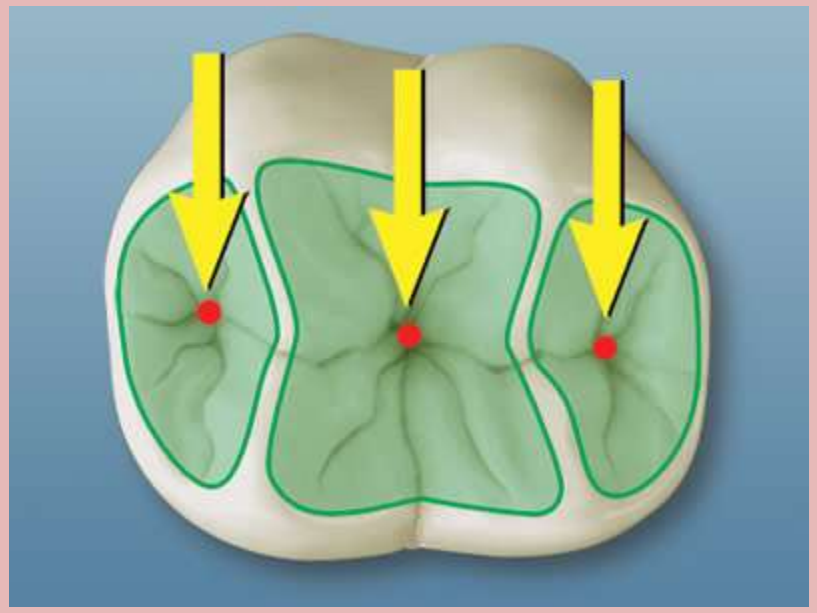


(c) Triangular fossa : it is located on the occlusal surface of molars and premolars ,mesial or distal to marginal ridges



d. PIT : It is a small depression located at the bottom of the fossa & the junction developmental grooves or at terminals of those grooves

Origin : incomplete union of the enamel between the lobes



Thank you