

Summary oral science


➤➤➤➤➤ Lecture #2



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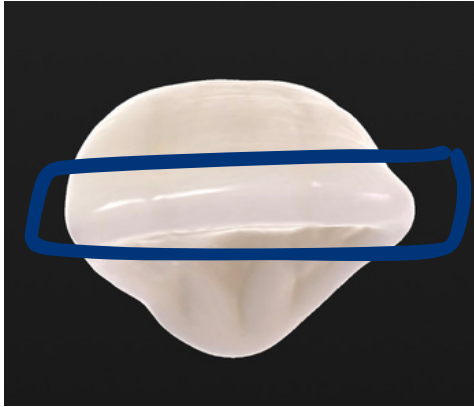
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Teeth land marks

Land mark	Definition	Location & examples	Other features
Ridge	Any linear elevation on the surface of a tooth	1) Incisal ridge (Incisors) 2) Marginal ridge (on posterior teeth, medial and distal border of the occlusal surface)	Named according to its location or form (buccal, incisal, marginal,...)
Cingulum	The lingual lobe of an anterior tooth and makes up the bulk of the cervical third of the lingual surface	Lingual surface of incisors and canines	The convexity mesiodistally resembles a girdle encircling the lingual surface at the cervical third
Cusp	An elevation on the crown portion of a tooth making up a divisional part of the occlusal surface	Occlusal surface of: Molars, premolars and in Incisal edges of canines	
Tubercle	Smaller than a cusp elevation on some portion of the crown produced by an extra enamel formation	Marginal ridges on occlusal surfaces of posterior teeth, or on the cingulum of an anterior teeth	It is not a functional structure



Teeth land marks



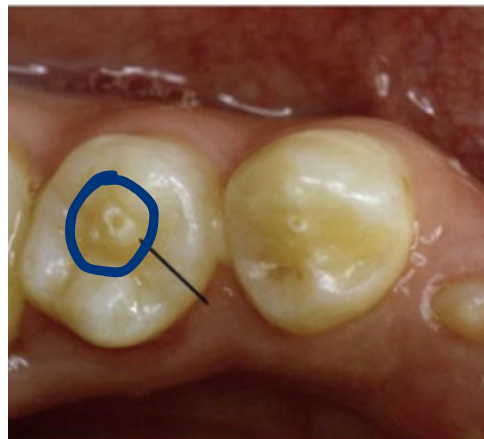
Ridge



Cingulum





Cusp



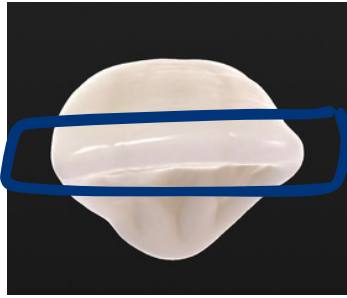
Tubercle

Types of ridges

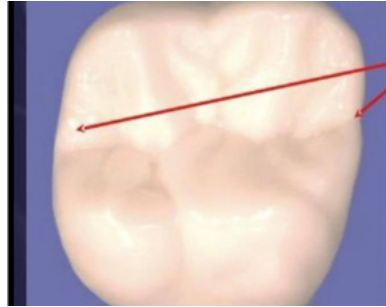
Ridge type	Definition	Other features
Incisal ridge	linear elevation on the surface of incisors	
Marginal ridge	Rounded borders of the enamel that form the mesial and distal margins of the occlusal surfaces of premolars and molars and the mesial and distal margins of the lingual surfaces of the incisors and canines.	
Triangular ridges	A ridge that descend from the tips of the cusps of molars and premolars toward the central part of the occlusal surfaces, the slopes of each side of the ridge are inclined to resemble two sides of a triangle.	Ridges are named after the cusps to which they belong (e.g.,the triangular ridge of the buccal cusp).
Transverse ridges	The union of two triangular ridges crossing transversely across the surface of a posterior tooth	Created when a buccal and lingual triangular ridges join.
Oblique ridge	Ridge obliquely crossing the occlusal surfaces of maxillary molars	Formed by the union of the triangular ridge of the distobuccal cusp and the distal cusp ridge of the mesiolingual cusp.
Cervical ridge	Height of contour at the gingiva, on certain deciduous and permanent teeth.	It could be buccal or Lingual
Cusp ridge	linear elevation of enamel that extends from the tip of a cusp toward the various surfaces of a tooth.	Ridges are named after the cusps to which they belong (e.g.,the Distal ridge of the buccal cusp).



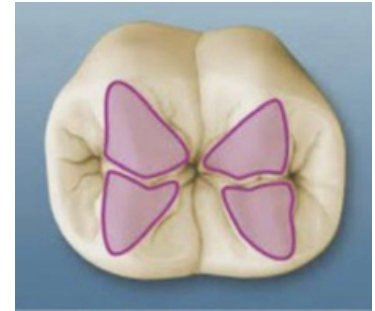
Types of ridges



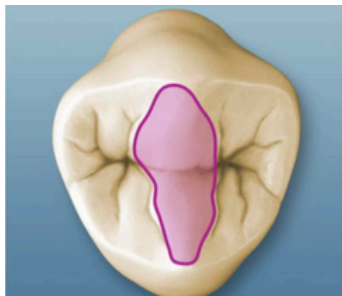
Incisal ridge



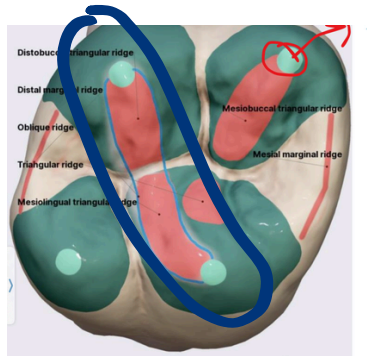
Marginal ridge



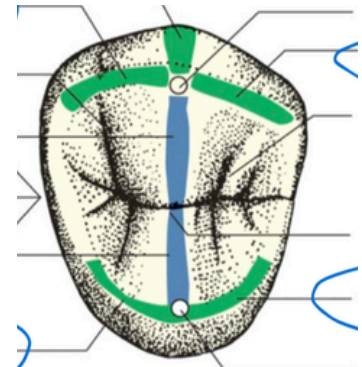
Triangular ridges



Transverse ridge



Oblique ridge







Cusp ridge



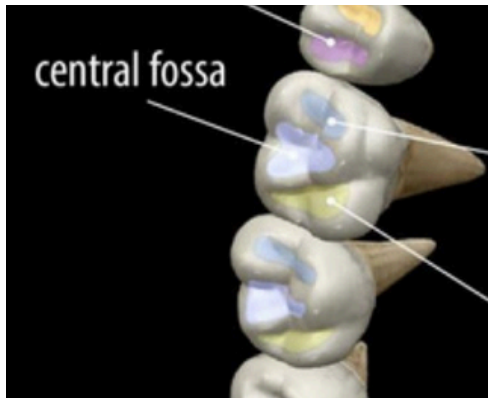
Cervical ridge

Other land marks

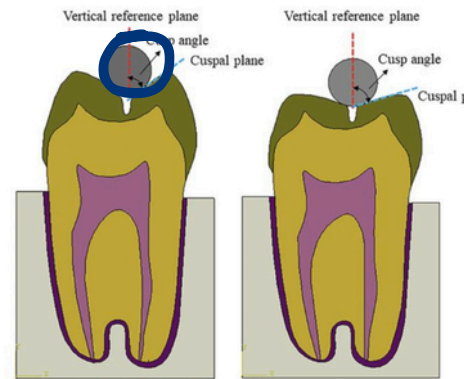
Land mark	Definition	Location & examples	Other features
Fossa	An irregular, rounded depression or concavity found on the surface of a tooth.	<ul style="list-style-type: none"> • Lingual fossae • Central fossae • Triangular fossae 	
Sulcus, fissure	long depression or valley in the surface of a tooth between ridge and cusps, the inclines of which meet at an angle.		Has a developmental groove at the junction of its inclines. Food enter these fissures, and when it accumulate there the tooth will have carries
Developmental primary groove	sharply defined, narrow and linear depression formed during tooth development		named according to their location. usually separating lobes or major portions of a tooth.
Supplemental groove	shallower linear depression on the surface of a tooth. less distinct and is more variable than a developmental groove		does not mark the junction of primary parts of a tooth
Pit	Small pinpoint depressions located at the junction of developmental grooves or at terminals of those grooves.	Central pit is found in the central fossa. Could also be mesial or distal	A pit is often the site of the onset of dental caries



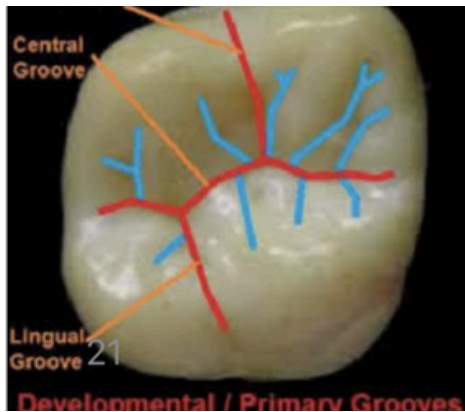
Other land marks



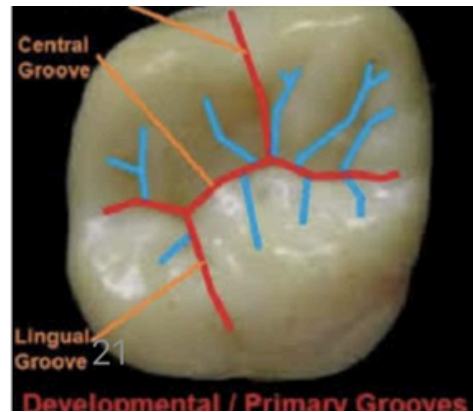
Fossa



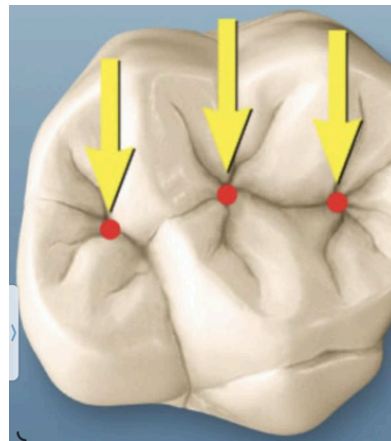
Sulcus, fissure



Supplemental groove (Blue)




Developmental (primary) groove (Red)



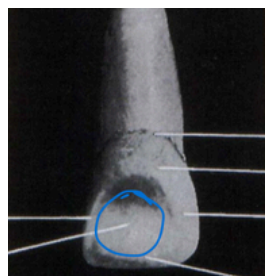
Pits

Types of fossa

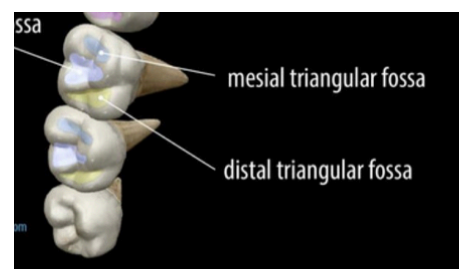
Fossae type	Definition	Other features
Lingual fossae	Depressions found on the lingual surface of anterior teeth .	
Central fossae	found on the occlusal surface of molars.	formed by the convergence of triangular ridges terminating at a central bottom point of the crown where a junction of grooves occurs.
Triangular fossae	found on posterior teeth occlusal surfaces	mesial or distal to marginal ridges.



Central fossae



Lingual fossae



Triangular fossae

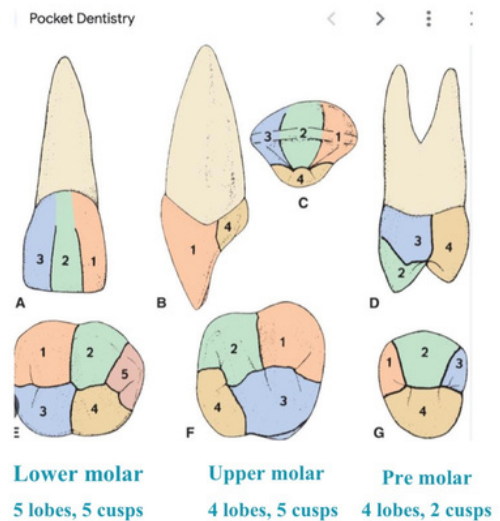
Lobes

- Lobes are one of the primary sections of formation in the development of the crown, they are growth center of formation and forms cusps and mamelons.

- Anterior teeth form from **four lobes**, three fascial and one lingual, if they are not fused entirely the developmental grooves and mamelons form.

4 lobes for interior tooth, the 4th one makes the cingulum

- Premolars form from **4 lobes**
- Molars form from **one lobe per major cusp**



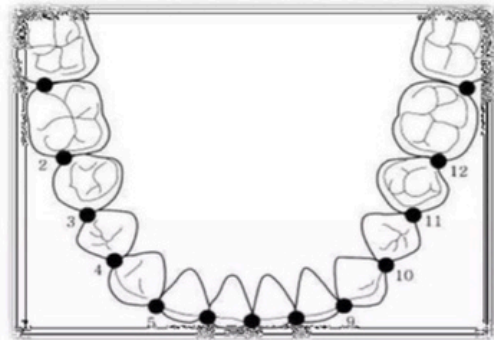
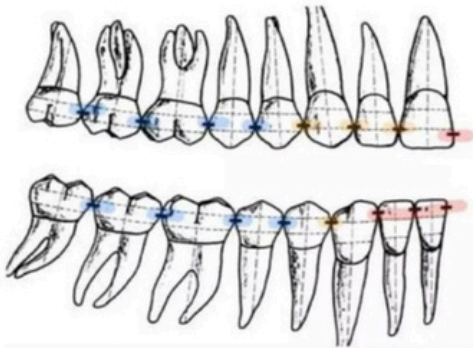
Mamelon

- Is any one of the three rounded protuberances found on the incisal ridges of newly erupted **incisor** teeth.



Contact areas

- Is where mesial and distal surfaces of teeth meet
- Importance of contact points:
 1. conserves the teeth from interproximal caries.
 2. It creates a natural embrasure by maintaining good oral hygiene at the interproximal area.
 3. Preserves the stability and integrity of the arch by maintaining normal mesio-distal relationship of teeth.
 4. Prevent food impaction interdentally.
 5. Protect the soft tissue from periodontal disease.



Required resources

- Tubercle
- Triangular ridges
- Fissures
- Tooth land marks video
- Contact points



