

Summary oral science

➤➤➤➤➤ Lecture 3 part 2

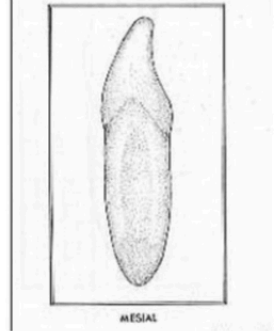
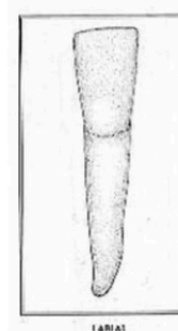
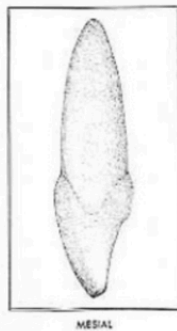
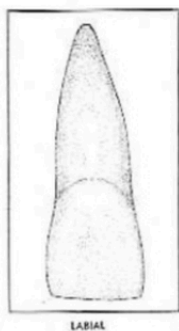


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Anterior teeth (Mandibular incisors)

Arch trait	Mandibular incisors
Crown	<ul style="list-style-type: none">• Crown narrower MD• Central and lateral are Nearly equal in size & dimensions
Root	<ul style="list-style-type: none">• Smaller MD• Generally oblong in x-section



Mandibular incisors anatomy

	Central	Lateral
Labial aspect	<ul style="list-style-type: none"> • narrowest MD of all incisors • Bilaterally symmetrical (type trait) • The surface is smooth, convex in the cervical third and flattened in the incisal third. • 3 mamelons • About 90 ° MI & DI angles and are at same level IC (type traits) • Both HOCs are within the incisal third • M & D outlines are almost straight lines • CEJ convex cervically • Root is narrow & conical 	<ul style="list-style-type: none"> • Slightly wider than central • Lack of bilateral symmetry • MI angle is sharp while DI angle is rounded with the distal HOC being more cervically situated
Lingual aspect	<ul style="list-style-type: none"> • Shallow fossa & less prominent cingulum & marginal ridges • lingual convergence of the crown 	<p>—</p>

Mandibular incisors anatomy

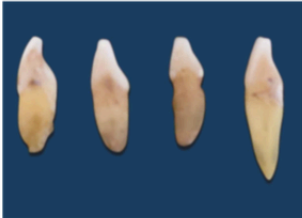
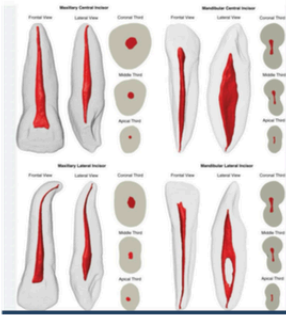
	Central	Lateral
Mesial aspect	<ul style="list-style-type: none">• Labial HOC within cervical third• From HOC toward incisal edge labial outline is straight	<ul style="list-style-type: none">• Nearly identical to that of central
Distal aspect	<ul style="list-style-type: none">• CEJ is 1 mm less curved	<ul style="list-style-type: none">• Nearly identical to that of central



Mandibular incisors anatomy

	Central	Lateral
Incisal aspect	<ul style="list-style-type: none"> • Triangular or ovoid • Labial surface is flat compared to max. Incisors • Seldom labial lobe groove • Long axis of incisal edge is perpendicular to LL line (type trait) • Mesial outline = distal outline in length 	<ul style="list-style-type: none"> • The incisal edge is 'twisted' from the 90 degree angle with the LL line • DI angle is more toward lingual
Root	<ul style="list-style-type: none"> • straight from cervix to middle third then tapers apically • convex MD and flattened LL • Developmental grooves on both M and D surfaces, deeper on the D. • pointed apex • Apical third usually is straight, sometimes, exhibits distal curvature. 	<ul style="list-style-type: none"> • Similar to that of central but longer

Mandibular incisors anatomy

	Central	Lateral
Variations	<ul style="list-style-type: none"> • This tooth is consistent in development and is rarely absent. • Small tooth • Short root • Bifurcation of root. rare 	<ul style="list-style-type: none"> • Two canals in a single root • Long root • Small size of tooth • Bifurcation of root into labial and lingual divisions.
Pulp anatomy	 <ul style="list-style-type: none"> • Bifurcation of the canal because of the root proximal grooves 	<ul style="list-style-type: none"> • Similar to that of central
Identification	<ul style="list-style-type: none"> • The symmetry of this tooth makes a judgement on right and left unreliable. • Check the CEJ • Observe the Root apex taper. • Root developmental grooves are deeper on the distal surface. • Central vs Lateral: When viewed occlusally, incisal ridge is at the right angles to the line bisecting the crown labiolingually. 	<ul style="list-style-type: none"> • Right and Left and cent vs lateral: Two significant features assist in identification, even in a worn tooth. The incisal edge is 'twisted' relative to the labiolingual bisecting line anticipating the curvature of the dental arch. Also, the cingulum will be shifted toward the side from whence the tooth has come.



Mandibular incisors anatomy

	Central	Lateral
Labial aspect	<p>← Distal → Mesial →</p> <p>Vertical root axis</p> <p>Sharp disto-incisal angles</p> <p>Sharp mesio-incisal angle</p> <p>Crown bilaterally symmetrical</p> <p>Mesial and distal outlines, tapers evenly towards cervix</p> <p>Trapezoid facial form with shortest of uneven side towards cervix</p> <p>Cervical line curved apically</p> <p>Single conical root</p>	<p>← Distal → Midline → Mesial →</p> <p>Disto-incisal angle rounded</p> <p>Mesiodistal dimension greater than that of central incisor by 1 mm</p> <p>Incisal ridge tends to slope downwards in a distal direction</p> <p>Mesial outline longer than distal outline</p> <p>Crown bilaterally asymmetrical (Distal slightly larger)</p> <p>Conical root</p> <p>Root apex</p>
Lingual aspect	<p>← Mesial → Distal →</p> <p>Marginal ridge—ill-defined</p> <p>Straight incisal ridge perpendicular to long axis of the crown</p> <p>Shallow lingual fossa devoid of developmental grooves</p> <p>Cingulum</p>	<p>← Mesial → Distal →</p> <p>Well-developed marginal ridge</p> <p>Narrower lingual surface due to lingual convergence of crown</p> <p>Shallow lingual fossa devoid of any grooves</p> <p>Cingulum</p> <p>Lingual convergence of root</p>

Mandibular incisors anatomy

	Central	Lateral
Mesial aspect		
Distal aspect		
Incisal aspect		

Contact area location:

- Mesial and distal
- labial and lingual

Developmental anomalies

- **Developmental anomalies of mandibular central incisors:**
 - **Talon's cusp**
 - **Gemination**
 - **Fusion** between mandibular, central and lateral incisors
- **Developmental anomalies of mandibular lateral incisors:**
 - **Congenitally missing**
 - **Fusion** between mandibular central and lateral incisors

Required resources

- Bilateral fusion of permanent Mandibular incisors with Talon's cusp



