



# Dental Anatomy

## Lecture (4)

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### ***PERMANENT MAXILLARY INCISORS***

Maxillary incisors are four in number. The incisors major function is to incise or cut food during mastication. The maxillary central incisor is larger than the lateral incisor.

#### **Characteristic features of incisors crown**

1. These teeth have incisal ridge and edge.

**Incisal ridge** is that portion of the crown which makes up the complete incisal portion.

**Incisal edge** is used when an angle is formed by the occlusal wear which creates flattened surface linguo-incisally, sometimes called the "***incisal surface***" which joined with the labial surface.

2. Presence of mamelons.

3. Marginal ridges of are longitudinally.

4. Lingual fossa.

5. Cingulum.

#### **Principles identifying features of permanent maxillary central incisor**

1. It is the widest anterior tooth mesiodistally.

2. It has a square or rectangular appearance.

3. Straight mesial outline and rounded distal outline.

4. Sharp mesioincisal angle and rounded distoincisal angle.

5. Mamelons on the incisal ridge (in newly erupted teeth).

6. Well marked marginal ridges, lingual fossa and well developed cingulum.

7. Single tapered root.

### **Labial Aspect**

1. The mesial surface outline is slightly convex with the crest of curvature (representing the contact area) near the mesio-incisal angle.

2. The distal outline is more convex than the mesial outline with the crest of curvature being at the junction between the incisal third and middle third.

3. The incisal outline in newly erupted teeth has elevations called Mamelons. With age they will wear off and straight incisal outline is seen.

4. The cervical outline of the crown follows a semicircular direction with the curvature directed toward the root.

5. The root is cone shaped with a blunt apex. It is 2-3mm longer than the crown.

6. A line drawn through the center of the root and the crown tends to parallel the mesial outline of the crown and root.

### **Lingual Aspect**

1. The crown and the root taper lingually, therefore, mesio-distal dimension of the lingual surface is narrower than that of the labial surface.

2. Below the cervical line there is a smooth convexity called cingulum which is confluent with raised marginal ridges mesially and distally.

3. Incisally there is the lingual portion of the incisal ridges. Between this ridges and the marginal ridges and the cingulum, a shallow concavity called the lingual fossa is present.

### **Mesial Aspect**

1. The crown is triangular in shape with the base at the cervix and the apex at the incisal ridge.

2. A line which bisect the crown will bisect the root. The incisal ridge of the crown is therefore on a line with the center of the root. This alignment is characteristic of maxillary central and lateral incisors.

3. The labial outline is slightly convex.

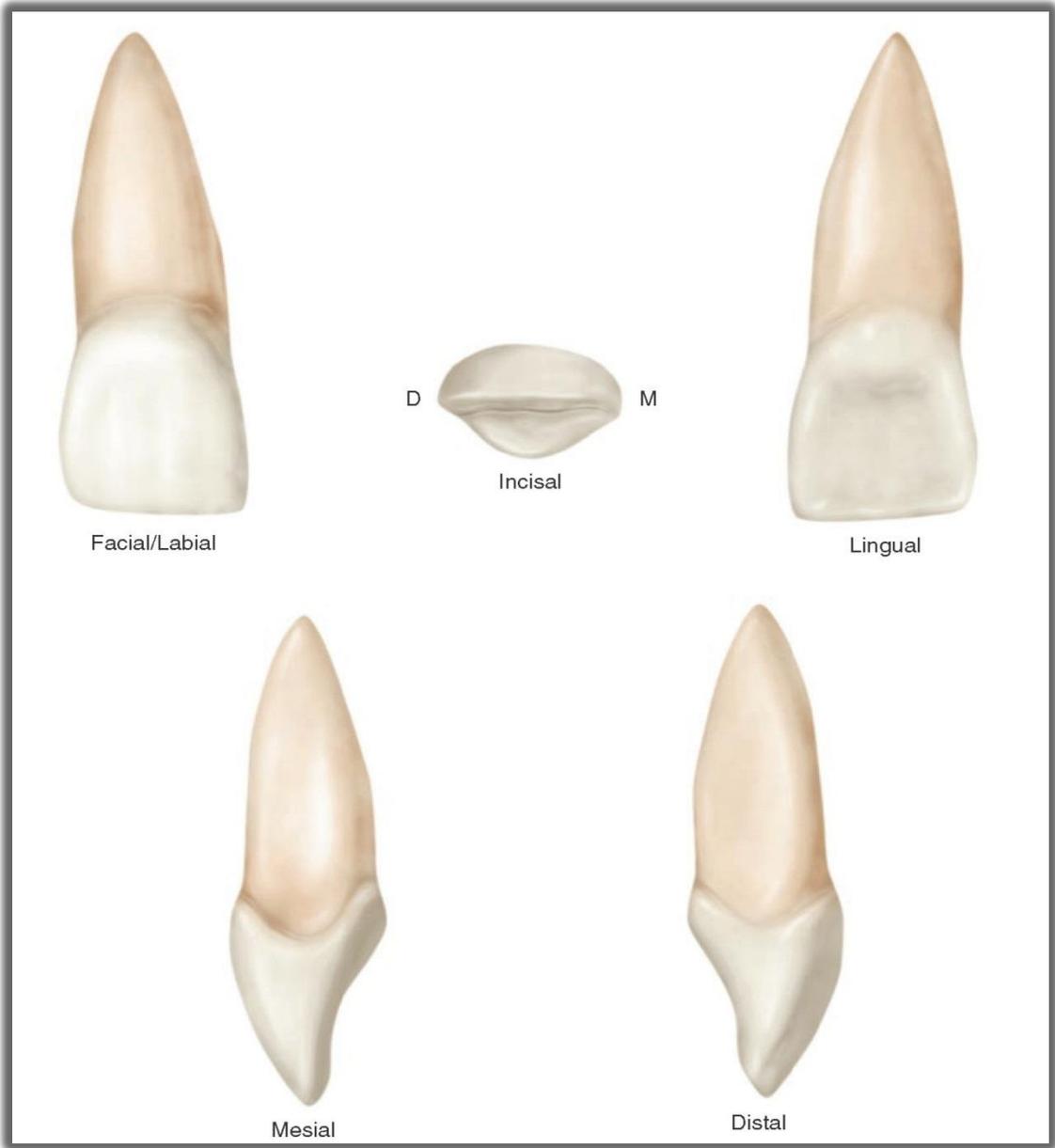
4. The lingual outline of the crown is convex at the cingulum then becomes concave at the mesial marginal ridge then slightly convex at the incisal ridge.
5. The cervical outline curves incisally more than any surface on any tooth, about 3-4 mm.
6. The root from mesial aspect is cone-shaped, and the apex is bluntly rounded.

### **Distal Aspect**

There is little difference between distal and mesial outlines. The curvature of the cervical line is less distally than mesially.

### **Incisal Aspect**

1. The incisal edge is centered over the root.
2. The labial outline of the crown is broad and flat.
3. The incisal edge and incisal ridge are well defined.
4. The outline of the lingual part tapers lingually to the cingulum.
5. The mesio-distal dimension labially is greater than that lingually.
6. The crown has triangular shape, as the root shape in cross-section.



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