

(5)

* Permanent canine

Fatma rashed



Introduction

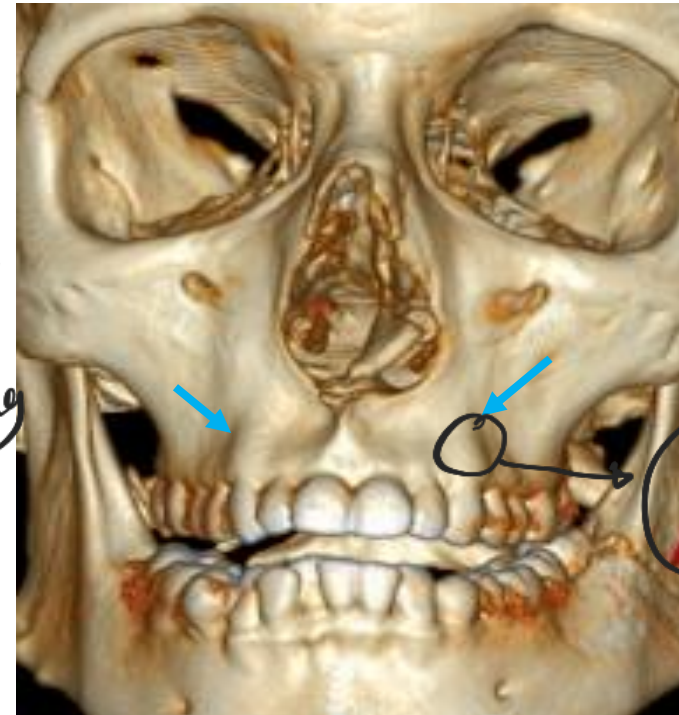
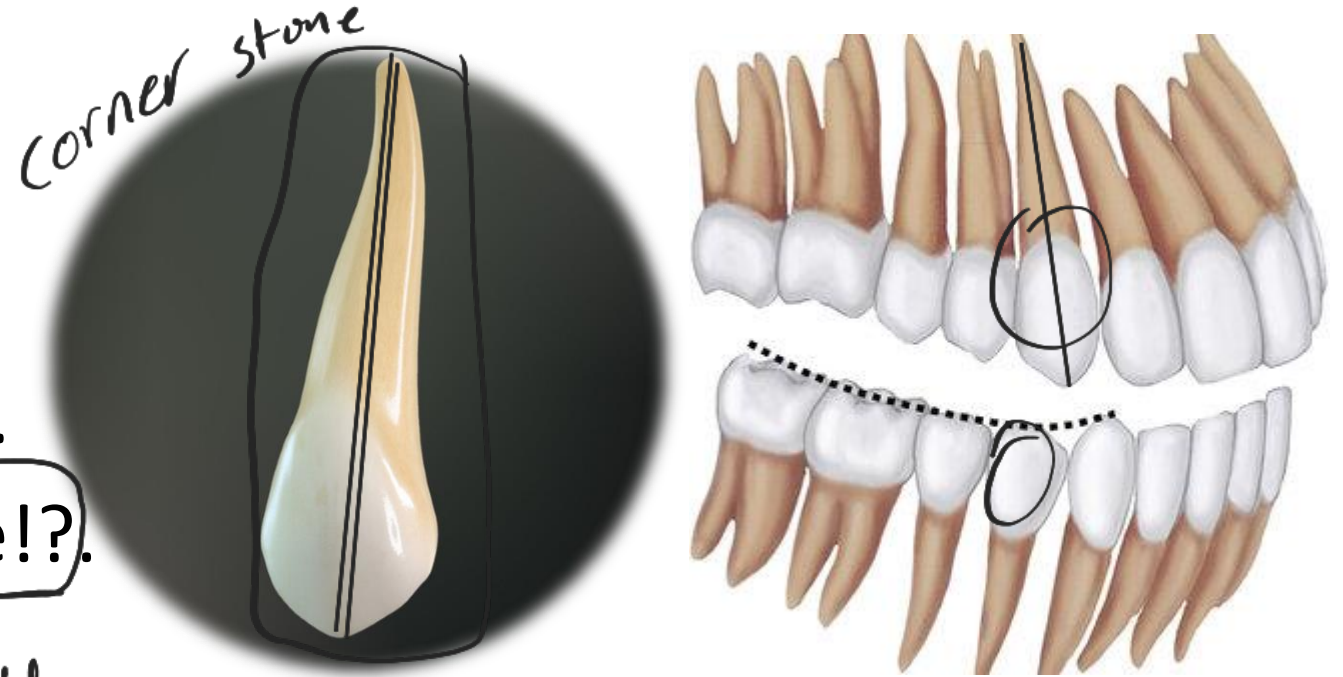
- There are 4 canines (2 maxillary and 2 mandibular).
- Longest tooth and most stable!?

Function:

1. **Tearing**, it is intermediate between incising and grinding.
2. **Support**, the maxillary incisors
3. **Esthetic**, Canine eminence

↓
support
Lips

→ cuz
they have
a short root
and surrounding
Bone is less



Introduction

Synonyms (different names):

1. **Corner stone:** bec.it is at the corner of the mouth
2. **Cuspid:** it has a pointed cusp
3. **Fang**



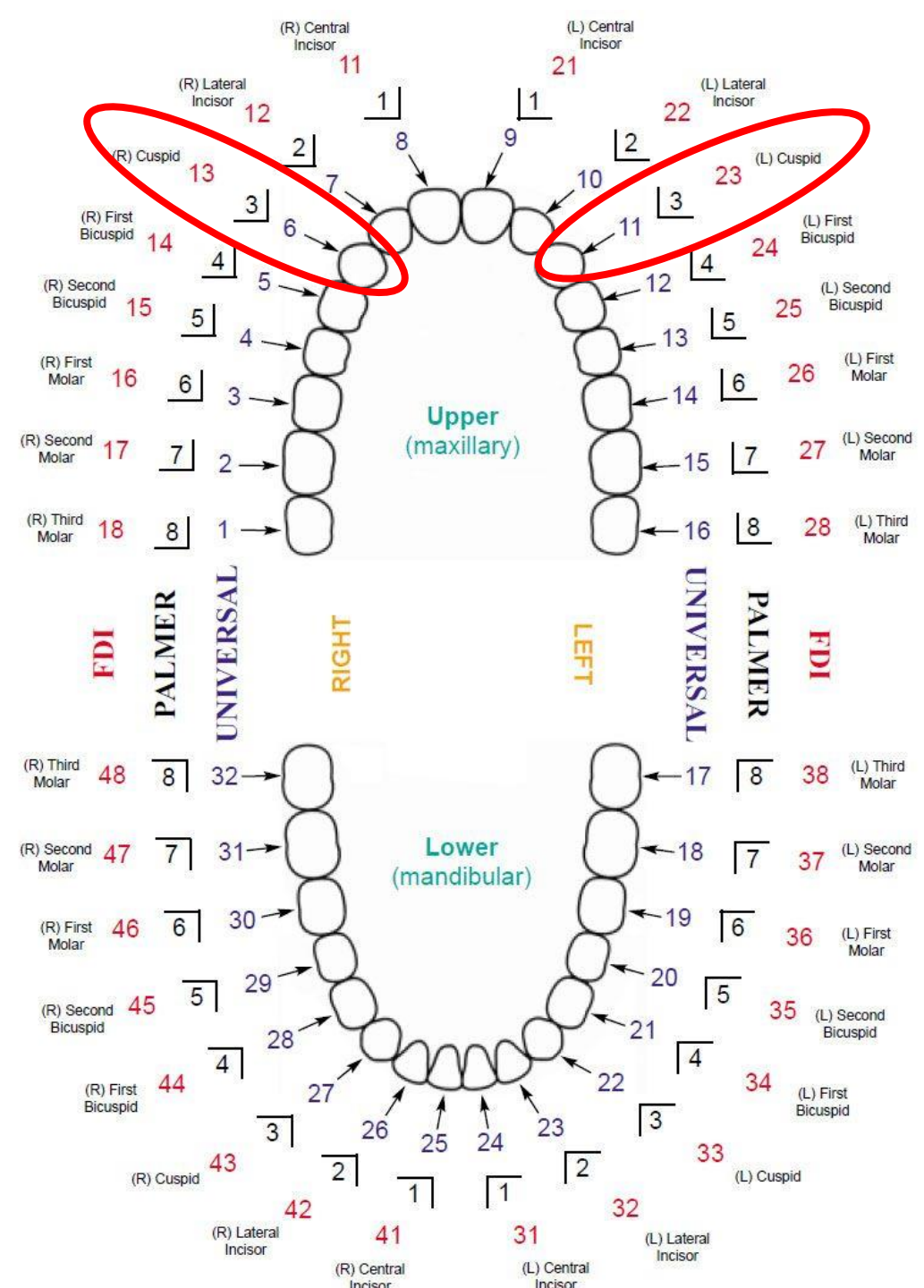
Permanent Maxillary canine

Tooth Numbering Systems

➤ **UNIVERSAL SYSTEM - 6, 11**

➤ **ZSIGMONDY / PALMER - 3 | 3**

➤ **FDI SYSTEM - 13, 23**



Chronology

L to Date

First evidence of calcification:

Crown completed:

Eruption: *is*

Root completion:

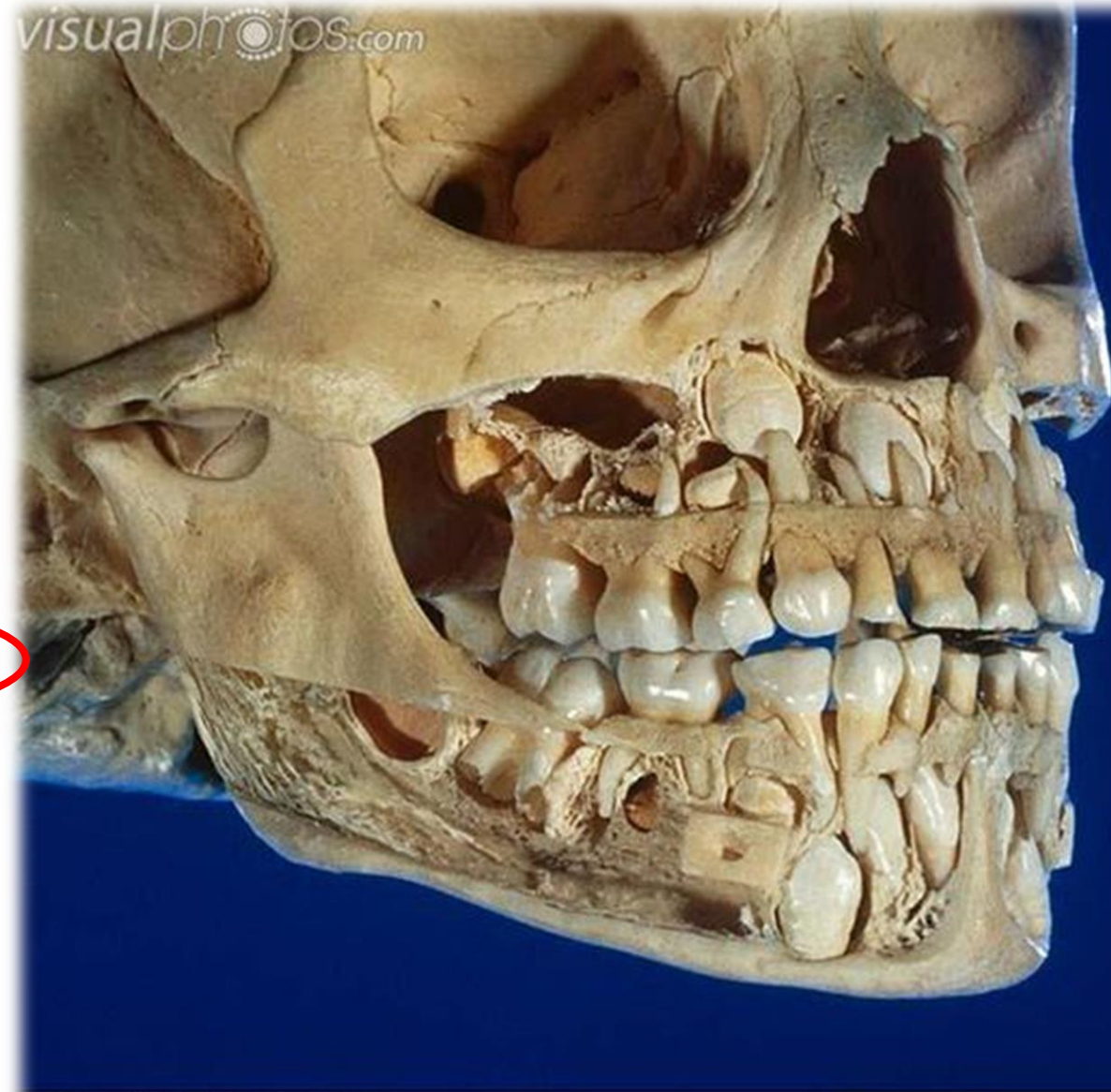
4 - 5 months

6 - 7 years

11-13 years

13-15 years

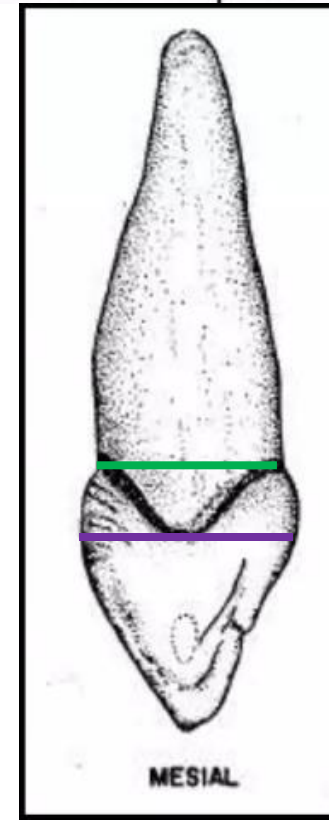
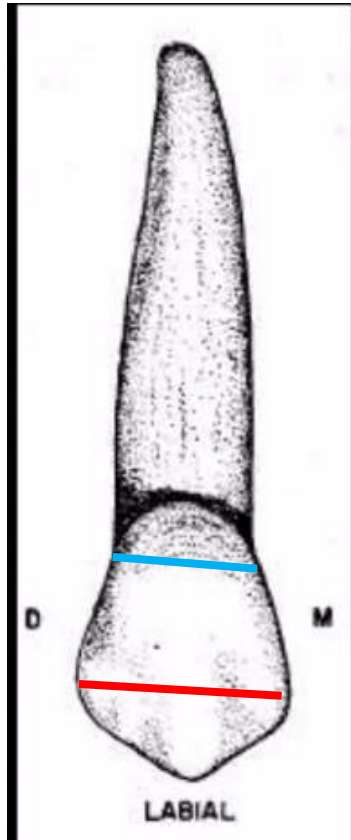
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02413 [RM] © www.visualphotos.com

Dimensions

Crown Length	Root Length	Mesiodistal Diameter of crown	Mesiodistal Diameter at Cervical Line	Labiolingual Diameter at Crest of Curvature	Labiolingual Diameter at Cervical Line	Curvature of Cervical Line M D
10	17	7.5	5.5	8	7	2.5 1.5



M 2.5
D 1.5



1. Geometric outline

2. Outlines

3. Contact area/crest of curvature

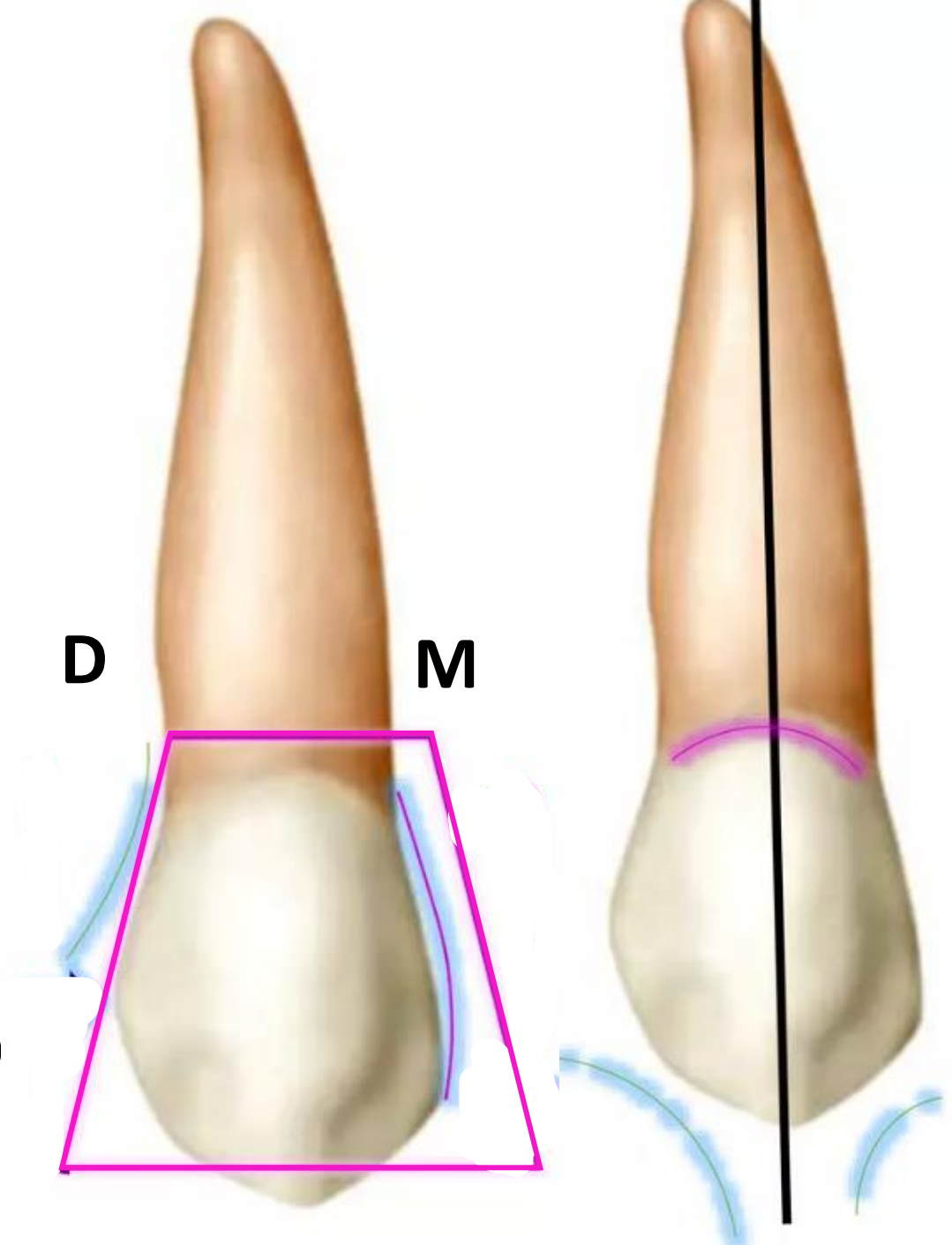
4. Surface anatomy

5. Cervical line

6. Root

Labial aspect

- **Geometric outline:** Trapezoid
- **Mesial outline:** slight convex
- **Distal outline:** slight concave
- **Incisal outline:**
 - ***Mesial and distal slope:***
-slight concave/straight
Distal slop is longer than mesial slop
 - ***Cusp tip:*** at the midline.

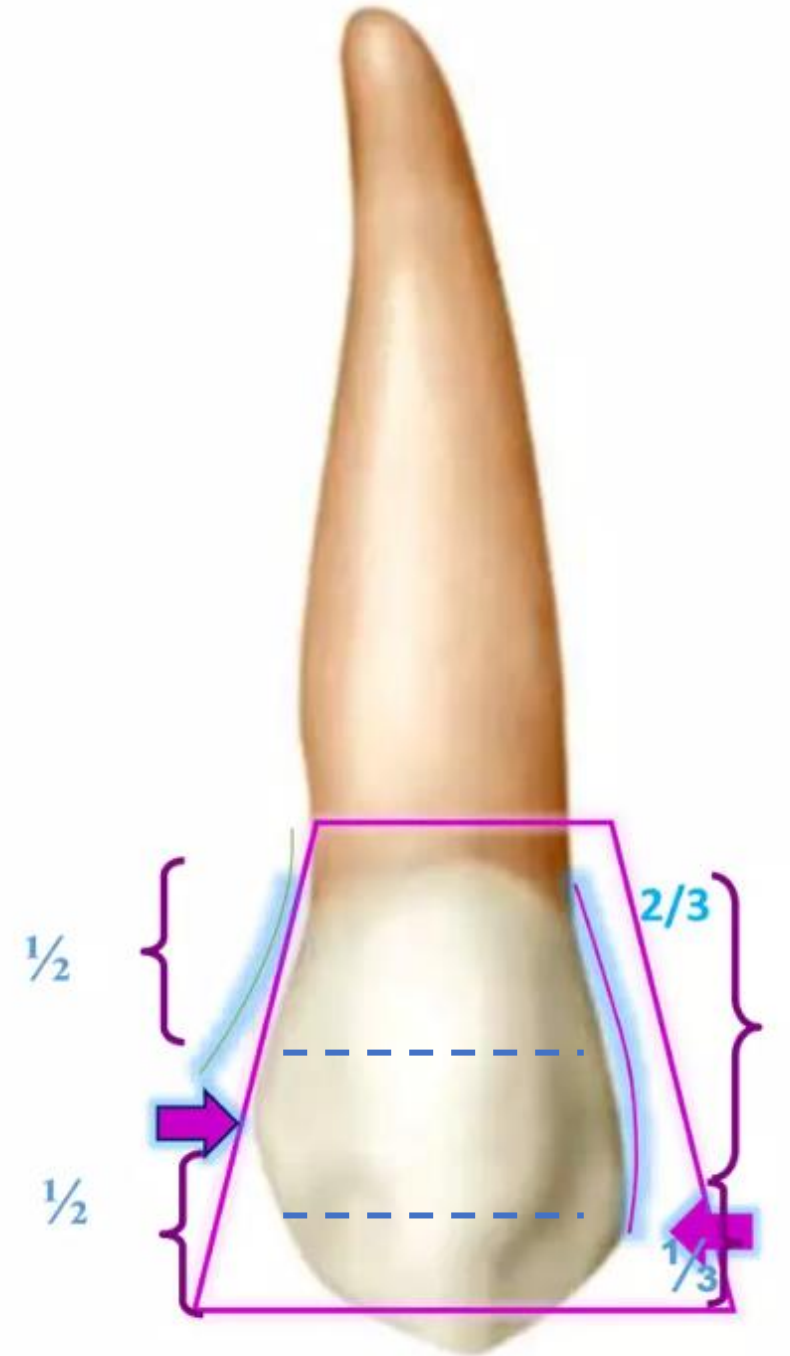


Labial aspect

- **Contact area:**

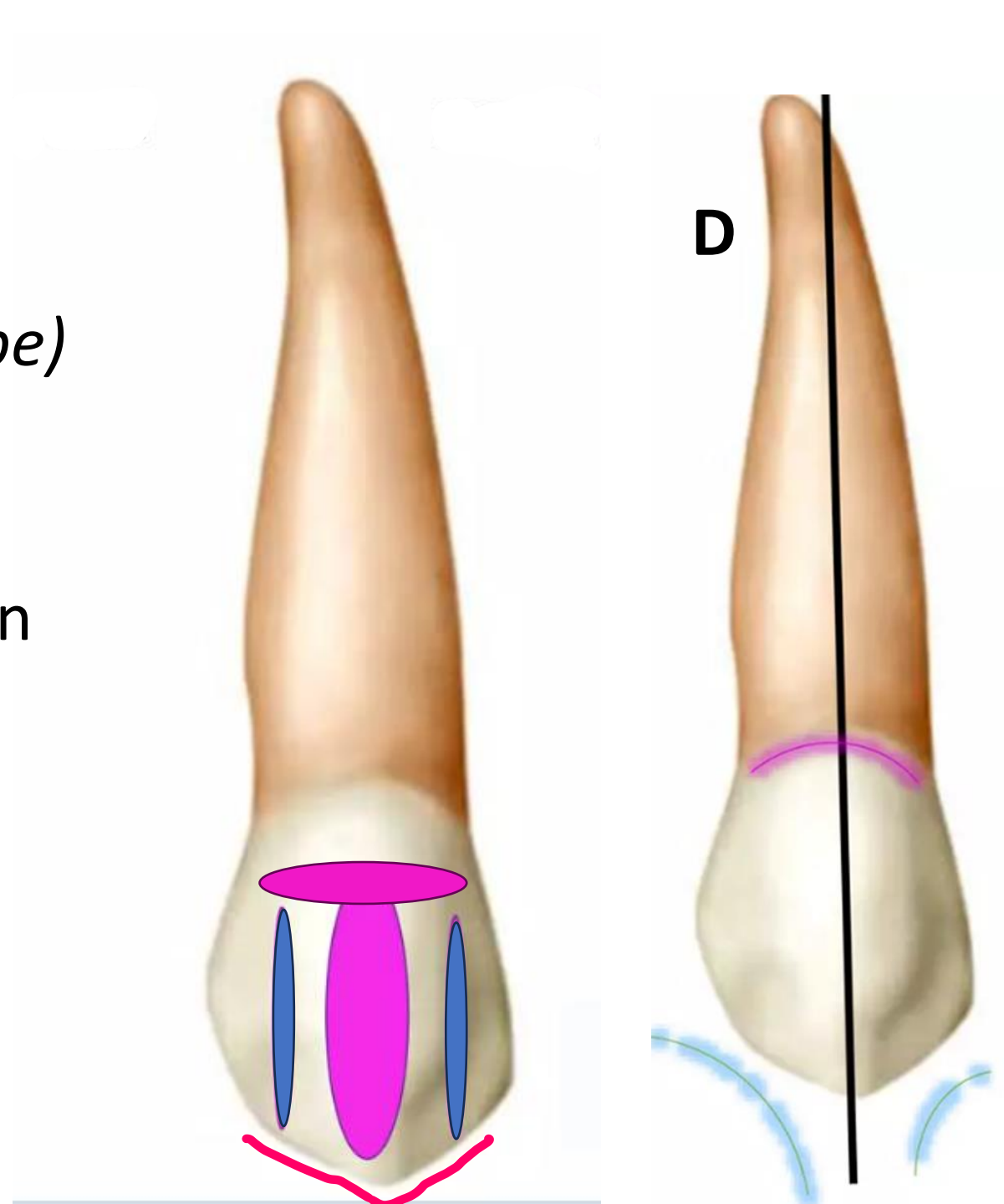
- ***Mesially:*** At the junction between incisal and middle third

- ***Distally:*** Middle of middle third



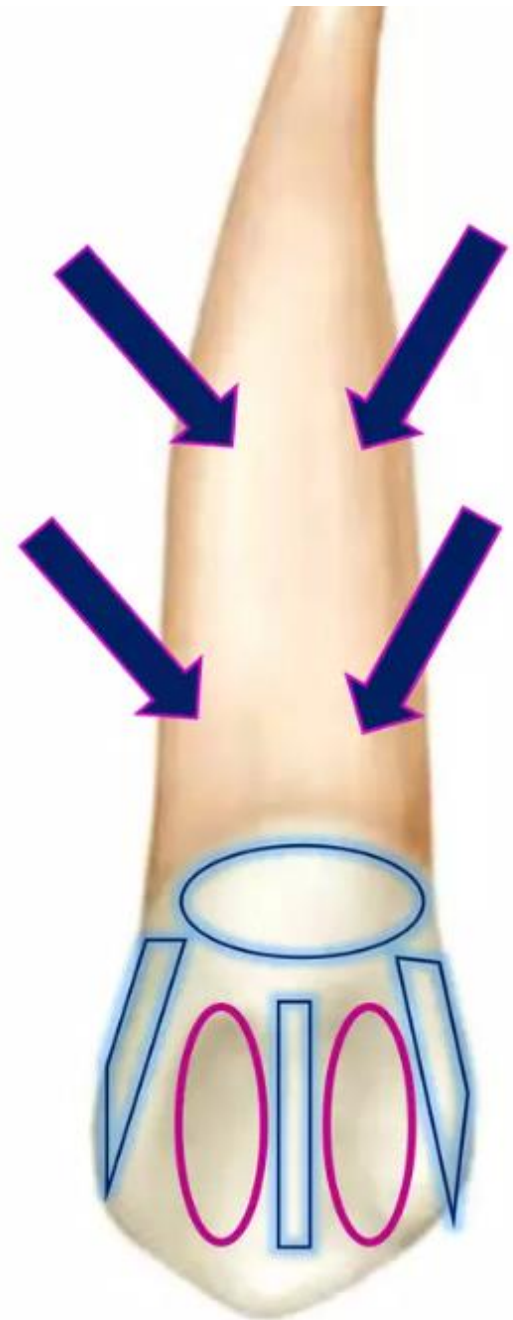
Labial aspect

- **Surface anatomy:** *Convex*
 - **Elevations:** -Labial ridge (middle lobe)
-Cervical ridge
-cusp
 - **Depressions:** shallow depressions on both sides of the labial ridge.
- **Cervical line:** *Convex root wise*
- **Root:** Cone shaped with blunt apex curved distally.



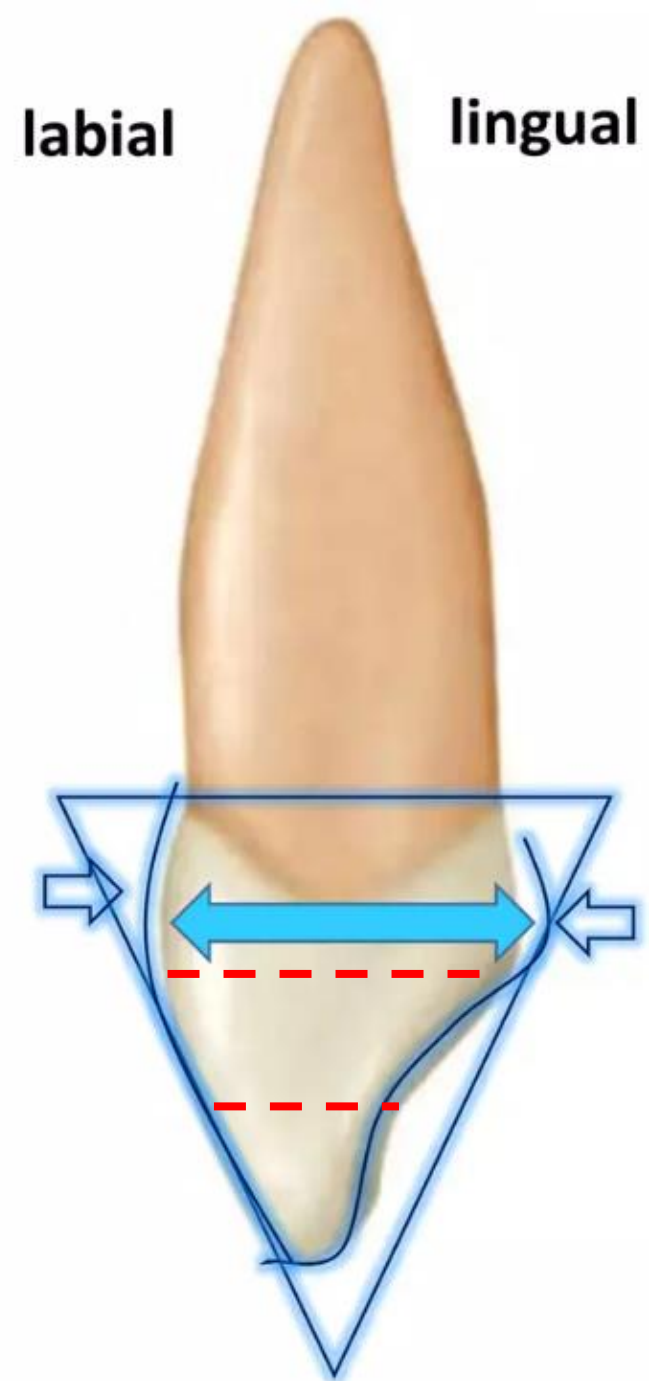
Lingual aspect

- **Outline:** same as labial
- **Lingual convergence:** lingual surface is narrower than labial
- **Surface anatomy:**
 - *Convex*
 - *Elevations:* -lingual ridge (middle lobe)
 - Cingulum (*Cervical ridge*)
 - Marginal ridge
 - Mesio and disto-incisal ridges
 - *Depressions:* 2 palatal fossae



Mesial aspect

- **Geometric outline:** Triangular
- **Labial outline:** slight convex
- **Lingual outline:** slight convex at cervical 1/3, concave at middle 1/3, then convex at the incisal 1/3.
- **Crest of curvature (greatest convexity)**
 - *At middle of cervical third Labially and lingually.*



Mesial aspect

- **Surface anatomy:**

- *Smooth slightly convex*

- **Cusp tip:** slight labial to midline

- **Cervical line:**

- *Concave root wise*

- **Root:**

- Cone shaped with blunt apex and developmental depression

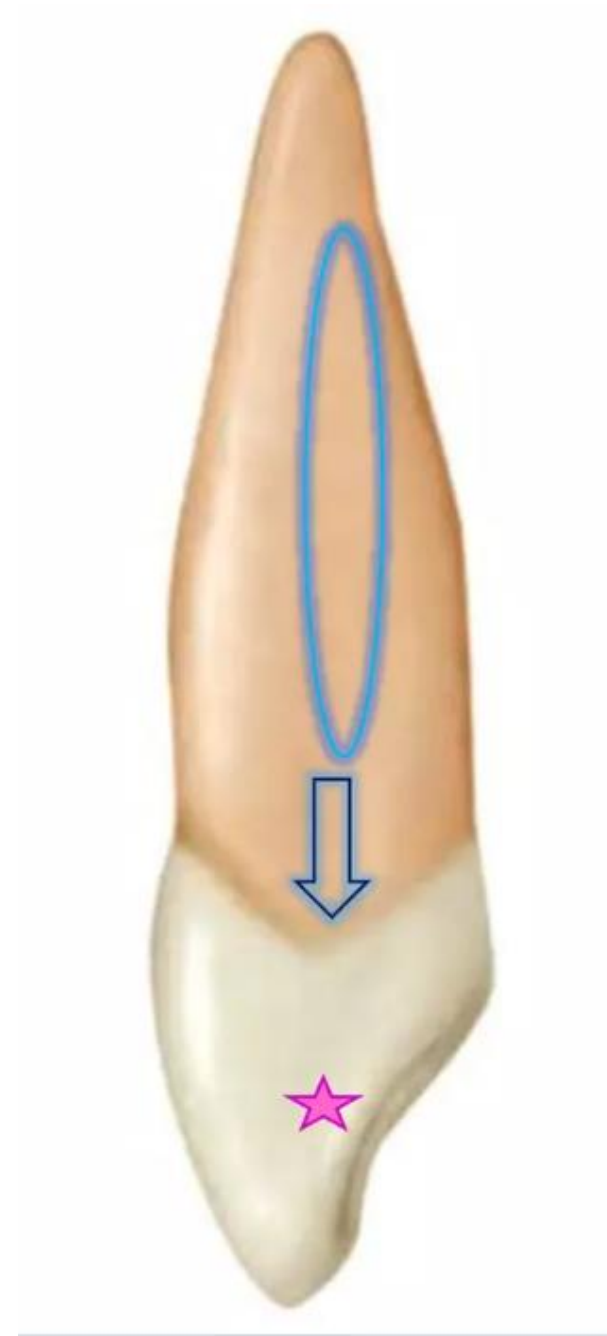


Distal aspect

Similar to mesial surface **except**

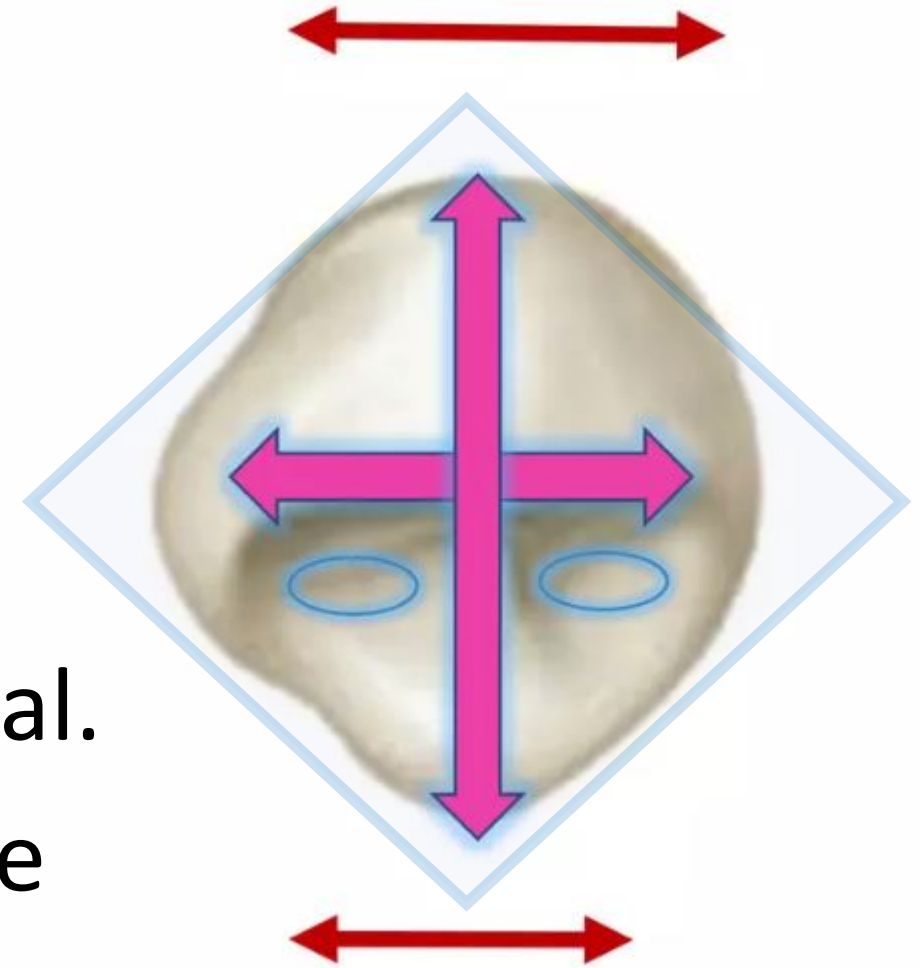
- **Cervical line:**

- *Less curved*



Incisal aspect

- **Geometric outline:** Diamond
 - Labiolingual dimensions is greater than mesiodistal.
 - Labial outline is greater than lingual.
- **Cusp tip:** is at the midline and little labial.
- **Lingual fossa:** two concavity separated by lingual ridge.



Mandibular Canine



Chronology

First evidence of calcification	4-5 month
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Enamel completed	6 years
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Eruption	9-10 years
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Root completed	12-13 years
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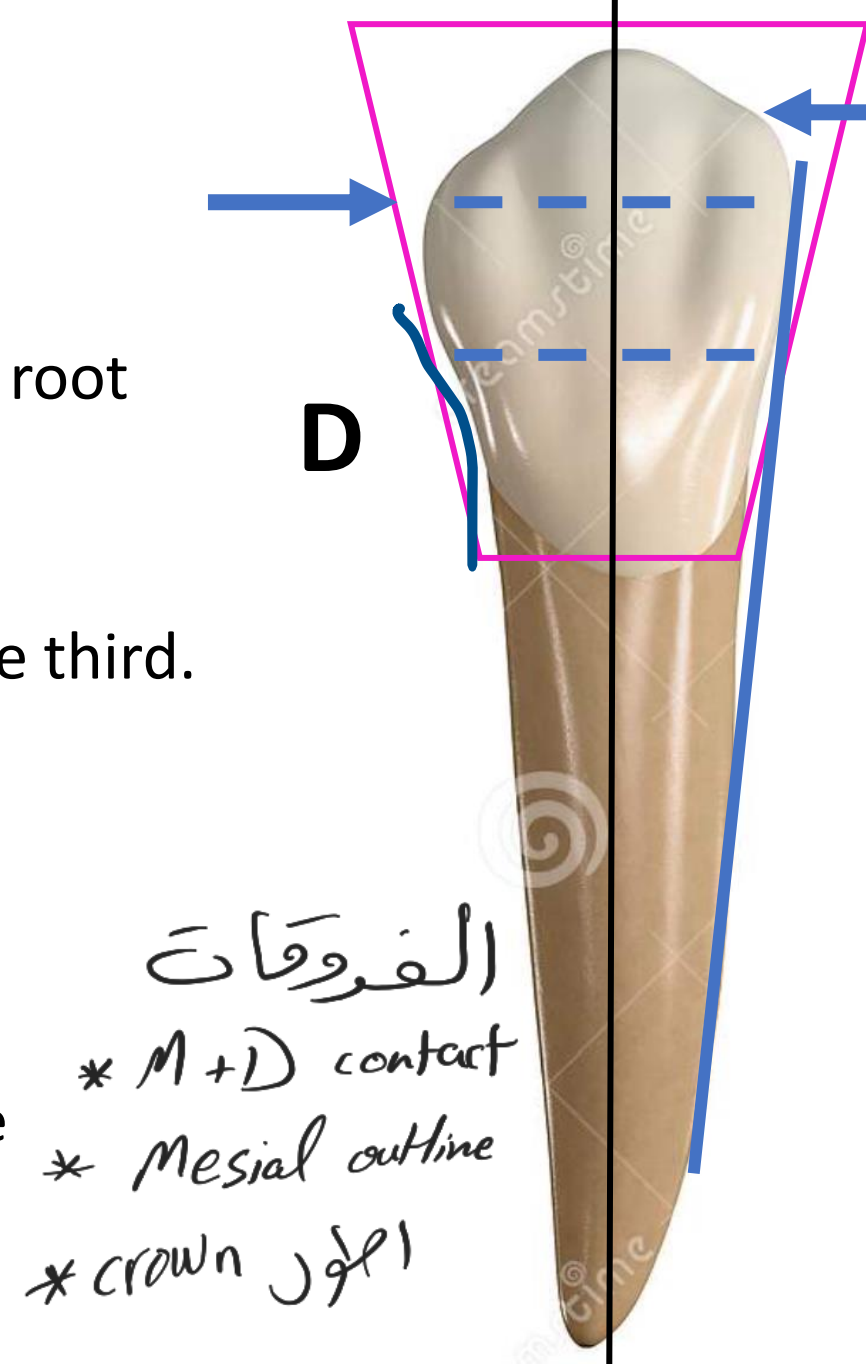
Dimensions

Crown Length	Root Length	Mesiodistal Diameter of crown	Mesiodistal Diameter at Cervical Line	Labiolingual Diameter at Crest of Curvature	Labiolingual Diameter at Cervical Line	Curvature of Cervical Line M D
11	16	7	5.5	7.5	7	2.5 1



1. Labial Aspect

- **Geometric outline:** Trapezoid
- **Mesial outline:** straight and in line with mesial outline of root
 - Mesial Contact area:* Mesially at middle of incisal third
- **Distal outline:** Concave from cervical line to contact area
 - Distal Contact area:* At junction between incisal and middle third.
- **Incisal outline:** -Cusp tip is at the midline
 - Distal slope is longer than mesial slope
- **Surface anatomy:** Smooth and convex
 - *Elevations:* Labial ridge from cervical line to cusp tip
 - *Depressions:* Shallow depressions on both sides of labial ridge
- **Cervical line:** Convex root wise
- **Root:** Cone shaped with pointed apex curved distally



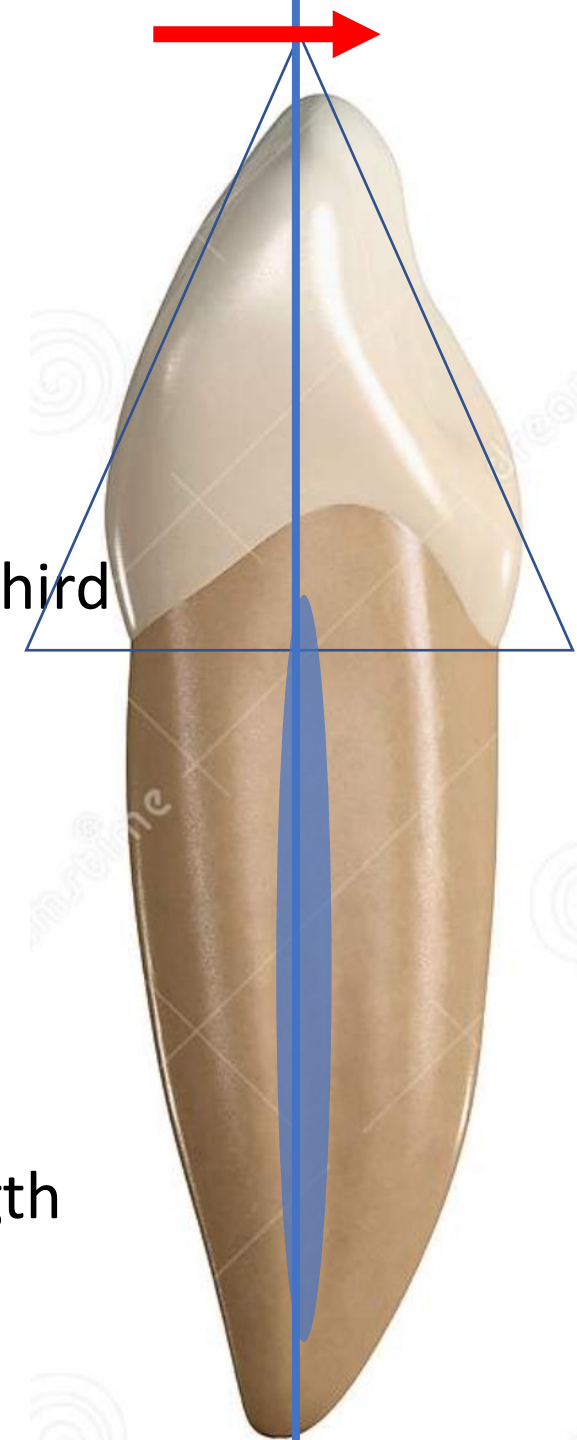
2. Lingual Aspect

- Similar to labial aspect except
 1. Lingual surface is tapered and narrower than labial surface.
 2. Less developed lingual ridge dividing the lingual fossa into mesial and distal fossa.



3. Mesial Aspect

- **Geometric outline:** Triangular
- **Labial outline:** Convex
- **Lingual outline:** Convex-concave-convex
- **Crest of curvature:** *Labially and Lingually:* At the middle of cervical third
- **Incisal outline:** -Rounded
 - slightly Lingual to the central axis of the tooth
- **Surface anatomy:** Smooth and convex
- **Cervical line:** Concave root wise
- **Root:** -wide with rounded centered apex
 - labial and lingual outlines are parallel through 2/3 of its length
 - Broad developmental depression.



4. Distal Aspect

- Similar to mesial aspect except
 1. Cervical line is less curved by 1mm
 2. Developmental depression on distal surface is deeper with well defined developmental groove.



N.B

The developmental **depression** of the root may be so deep producing

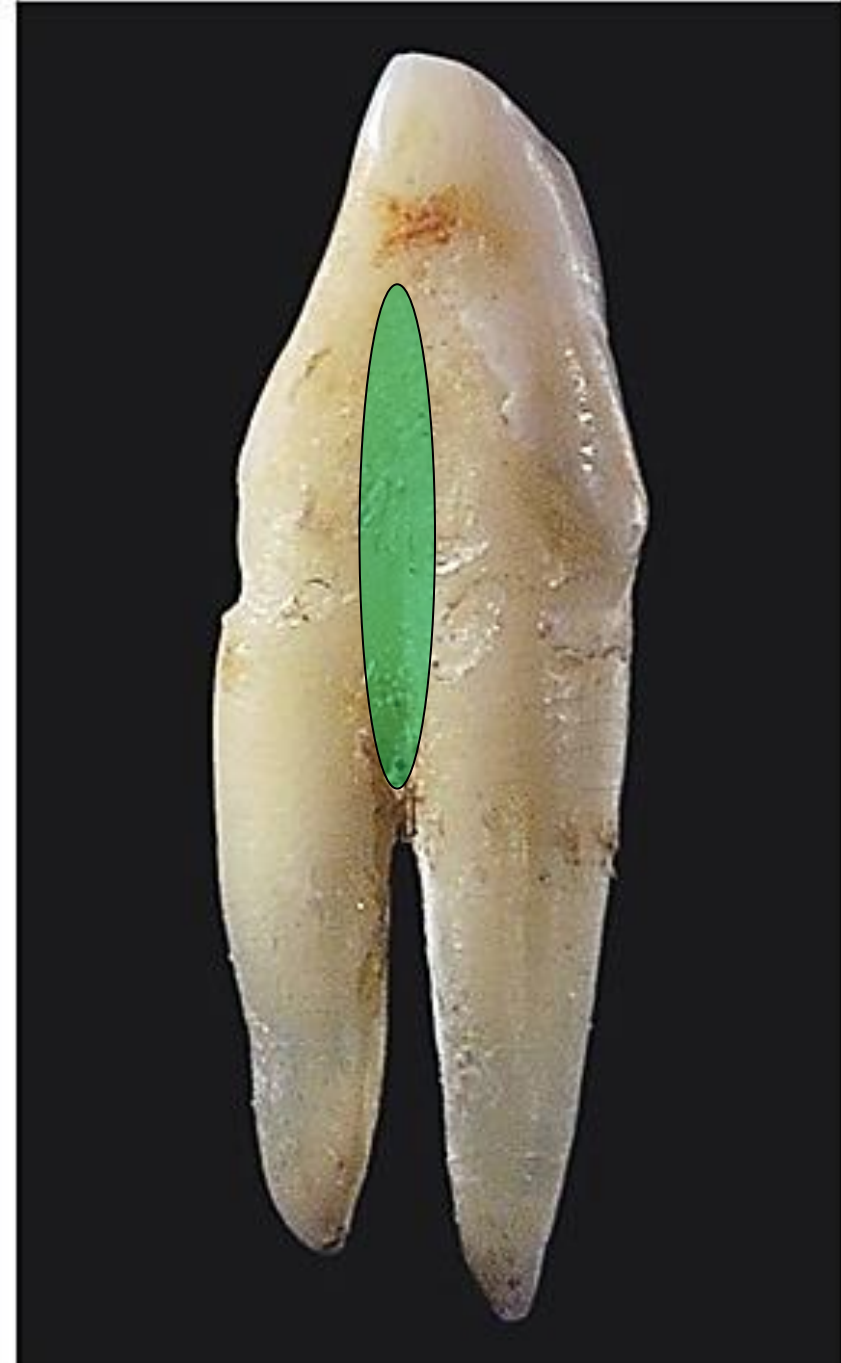


Bifurcation in the root may be apically or extend up to cervical
 $\frac{1}{3}$



Bifid root apex Or Two roots
(labiolingually)

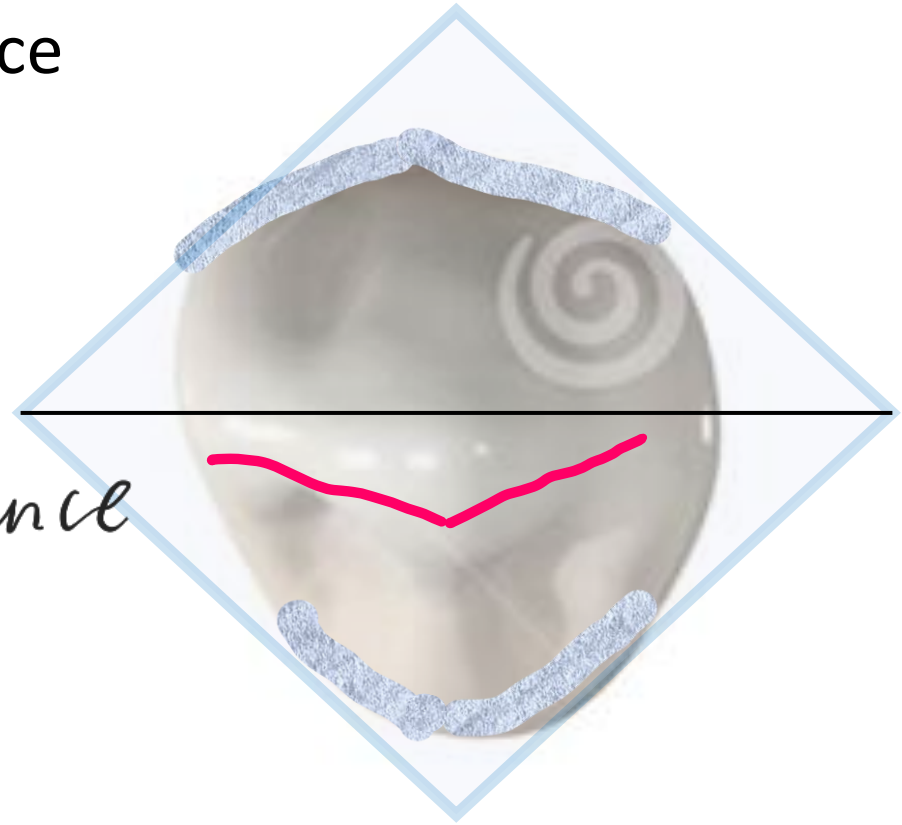
5%



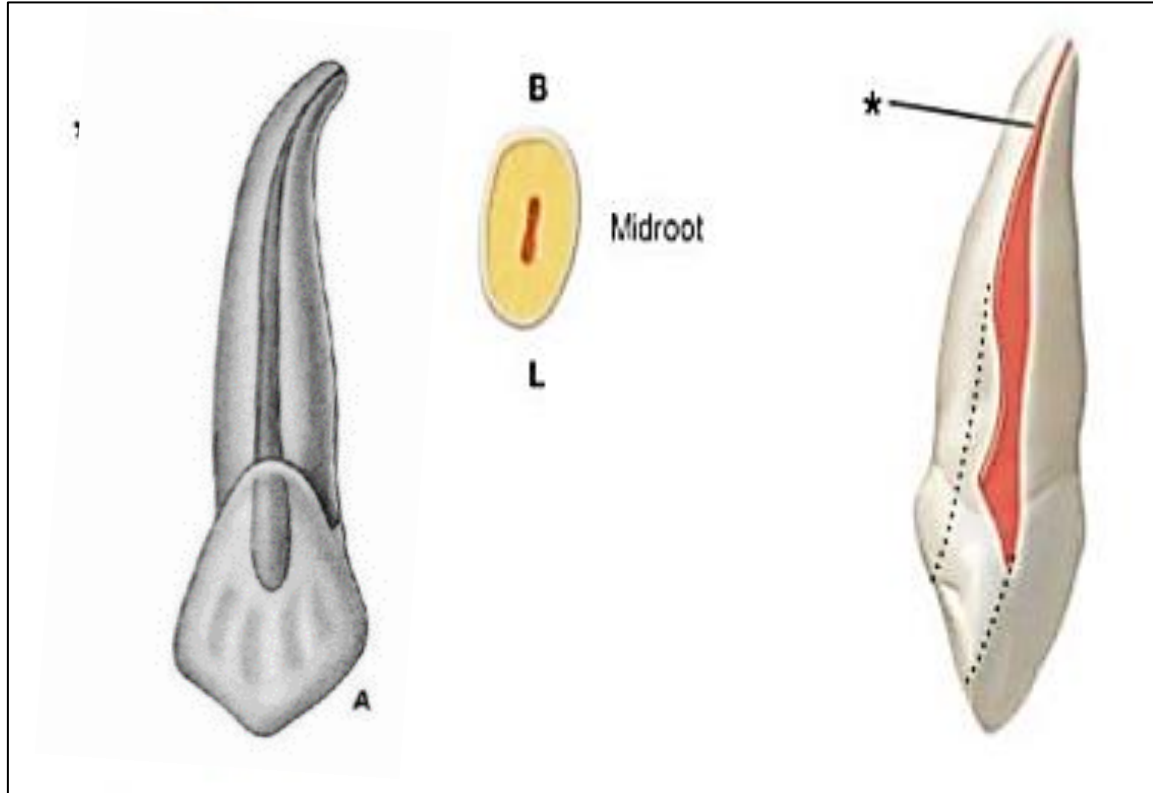
5. Incisal Aspect

- Labiolingual diameter is greater than mesiodistal
- Labial surface is wider than the lingual surface
- Buccal and lingual ridge is less pronounced
- Cusp tip and cusp ridge is inclined lingually.

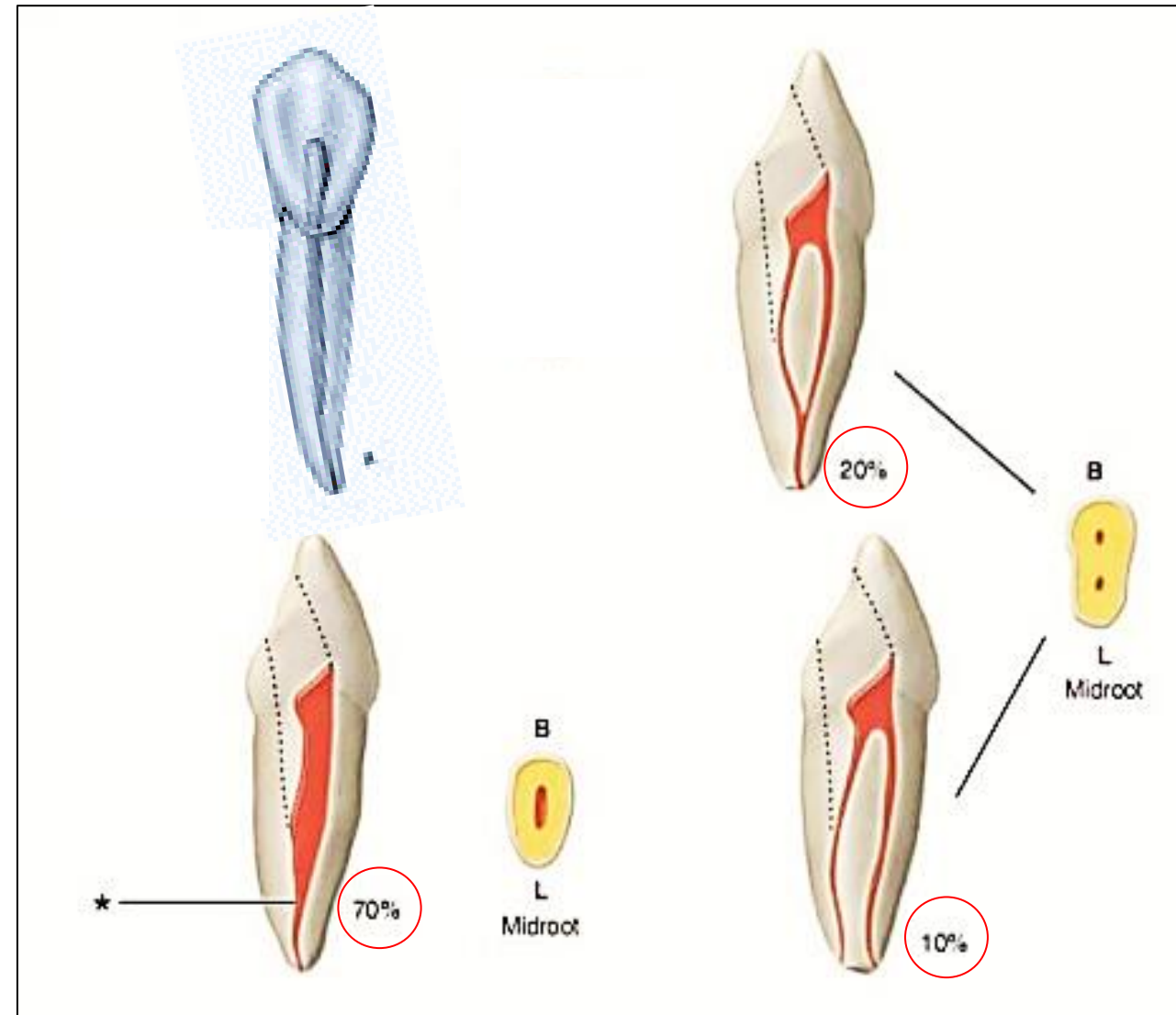
**lingual convergence*



Pulp Cavity



Upper Canine



Lower Canine