



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

IN THE NAME OF ALLAH THE MOST  
GRACIOUS THE MOST MERCIFUL

# *Surface Anatomy of Permanent Teeth*

**Dr Magdy ELabasiry, BDS, MS(Egypt), Ph. D.(Egypt.)**

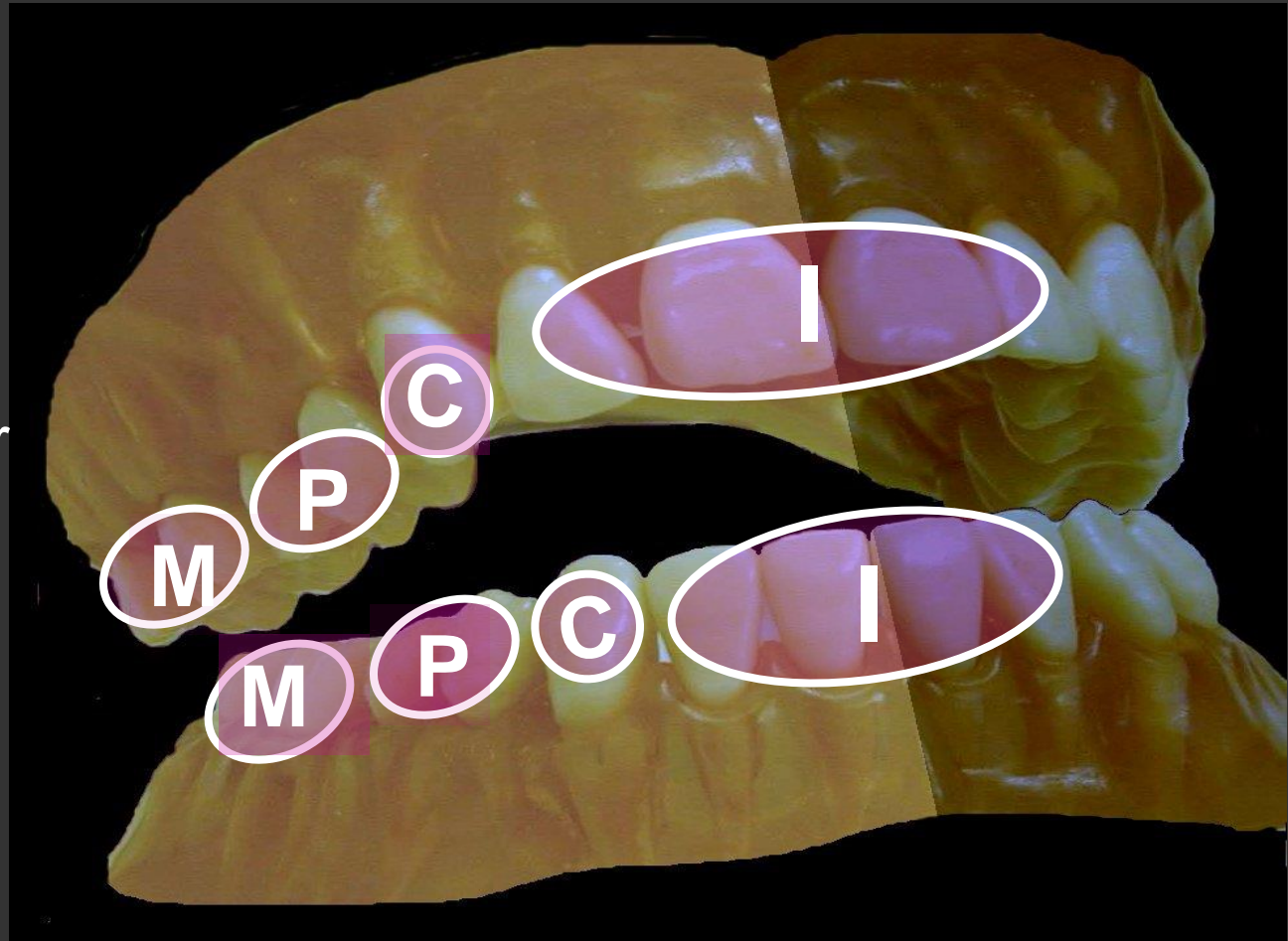
# *Surface Anatomy of Permanent Teeth*

**I**, for incisor

**C**, for canine

**P**, for premolar

**M**, for molar



# *Anterior teeth*

*They are divided into:*

*Incisors*

*And*

*Canines*

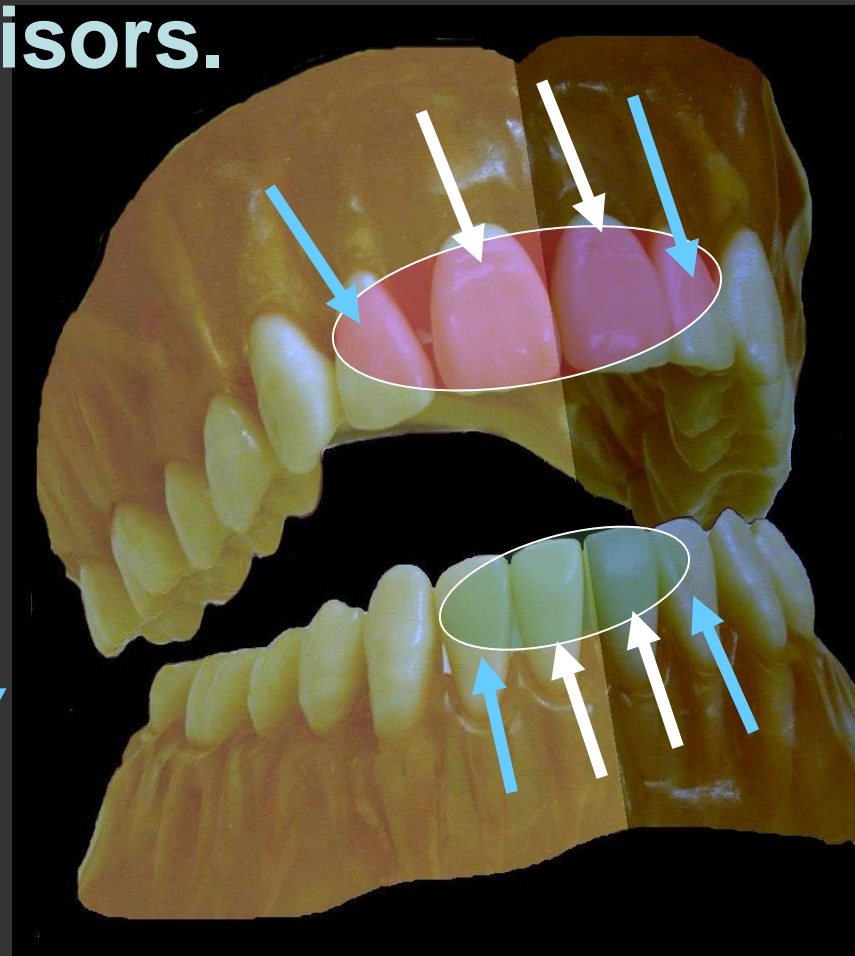


# *Incisors*

**There are four maxillary incisors and four mandibular incisors.**

♥ *Two central incisors contact with each other in the midline (mesially) and with the lateral incisors distally.*

♥ *Two lateral incisors contact with the central incisor mesially and with the canine distally.*



# General Feature

1. Eight in number.
2. The crowns are trapezoidal in shape (labially and lingually).
3. The crowns are triangular in shape (proximally).
4. The labial and lingual crest of curvatures are at the cervical third of the crown.

5. Presence of mamelons on the incisal ridge.

6. Each incisor has 4 lobes (3 labial and 1 lingual).

7. Function : incise and cut food material, esthetic, and speaking.

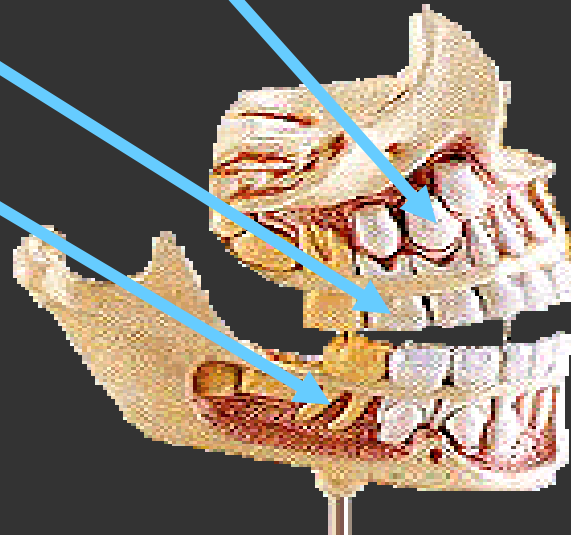
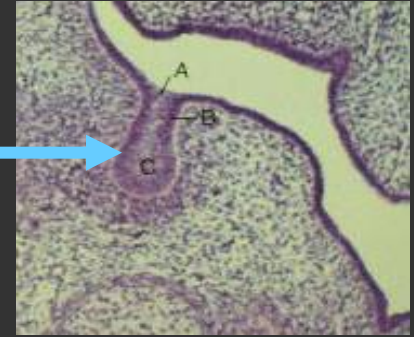
# *For easy teeth description*

*We have to speak about :*

- *Function (mastication (incising), esthetic, speaking).*
- *Chronology.*
- *Number of lobes (four lobes 3 labially and 1 lingually).*
- *Geometric outline of the crown.*
- *Outlines of the crown and root.*
- *Surface anatomy of the crown and root.*
- *Pulp cavity.*

# Chronology:

- Enamel organ appearance.
- Beginning of calcification.
- Crown completed.
- Eruption.
- Root completed.





# *All teeth have 5 aspects*

1



*Facial*



*Lingual*



*Mesial*



*Distal*

No. of roots

It has one root.

*Incisal*



# Chronology of Permanent Maxillary Central Incisor

Appearance of dental organ ⇒ 5 m I. U.

Beginning of calcification-----⇒ 3-4 months

Crown completion-----⇒ 4-5 years

Eruption -----⇒ 7- 8years

Root completion-----⇒ 10 years

# Surface Anatomy

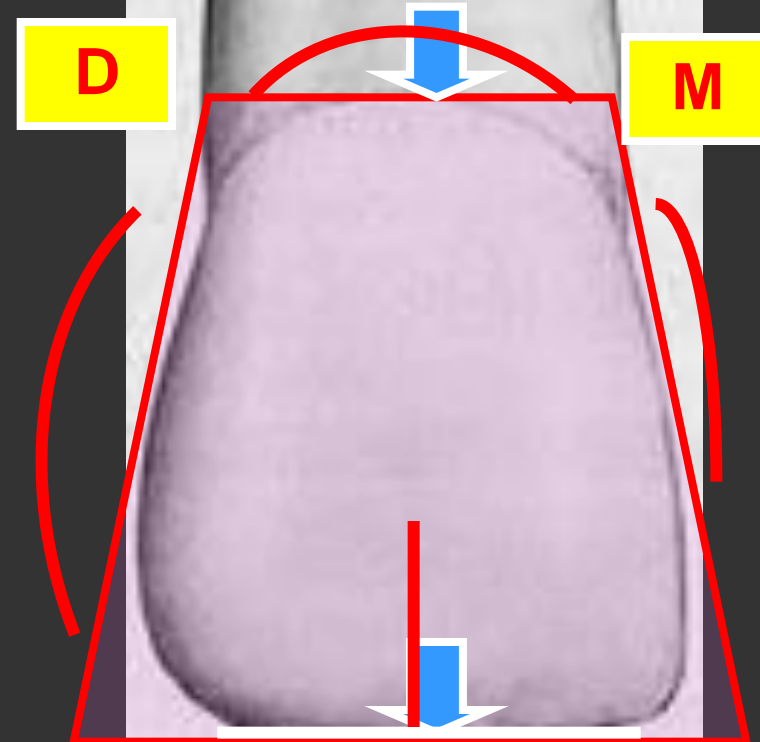
## ☺ Geometrical outline of the crown: Trapezoid

- The short side cervically
- The long side incisally

## ☺ The outline:

- Mesial outline is slightly convex.
- Distal outline is more convex.
- Incisal outline is straight and perpendicular to the long axis of the tooth(mamelons in newly erupted tooth).
- The cervical line is convex root-wards.

Labial aspect



The mesio-incisal angle is nearly - **sharp**.

- The disto-incisal angle is **rounded**.

### ☺ Surface anatomy:

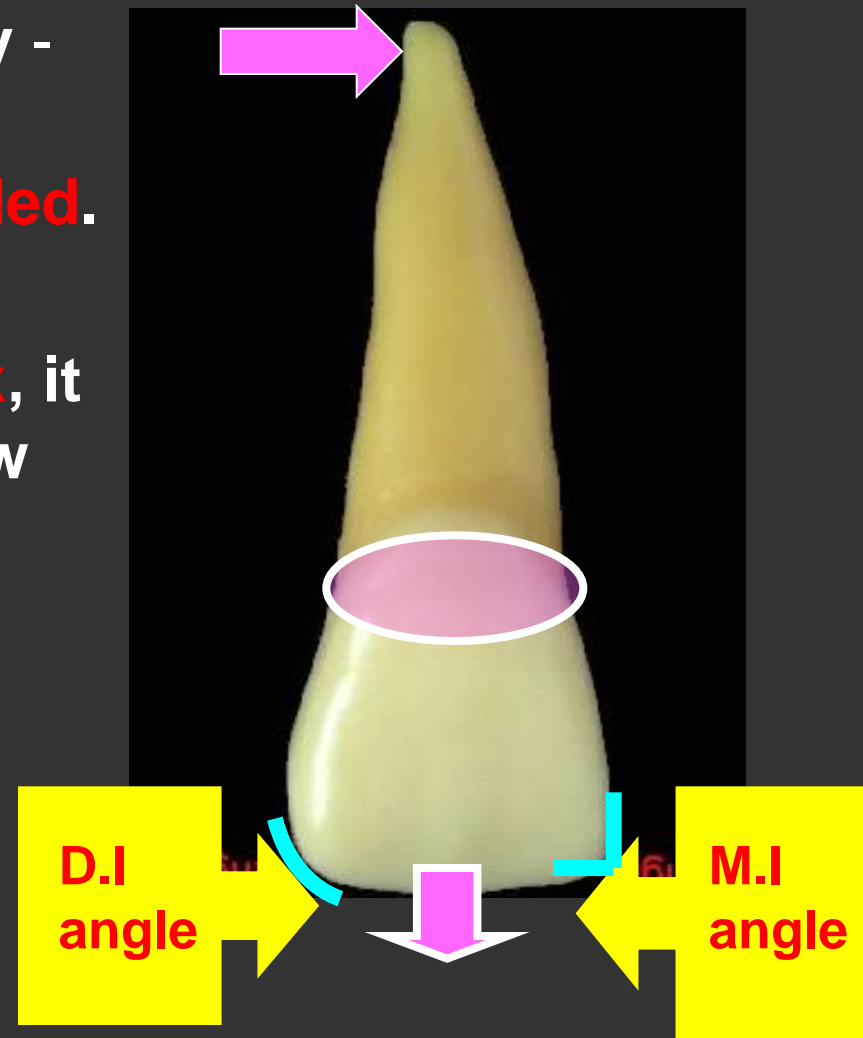
-The surface is smoothly **convex**, it is **flattened** incisally. Two shallow vertical developmental grooves divide the labial surface into 3 portions of lobes

-Cervical ridge located at cervical third.

### ☺ The root:

- It has a single root.

- It is cone shape with blunt apex.



# 1. Geometric shape of crown:

# 2. Outline form:

- The reverse of the labial aspect

# 3. Anatomical features:

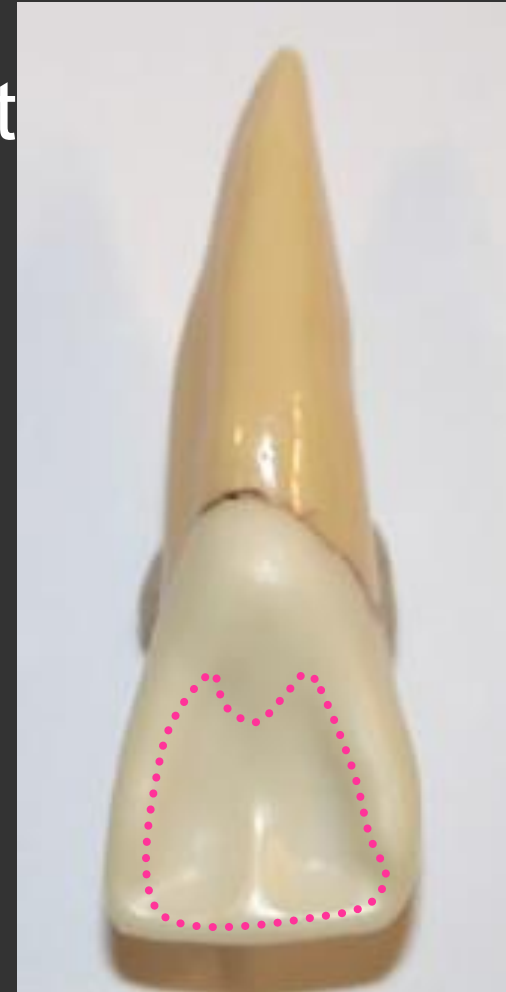
## • Elevations:

- Cingulum → in cervical 1/3
- Mesial & distal marginal ridges
- Incisal ridge

## • Depressions:

- Lingual fossa
- Root shape:
- Root apex: the reverse of the labial

Lingual Aspect



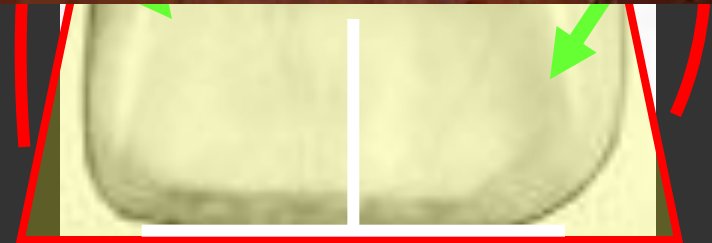
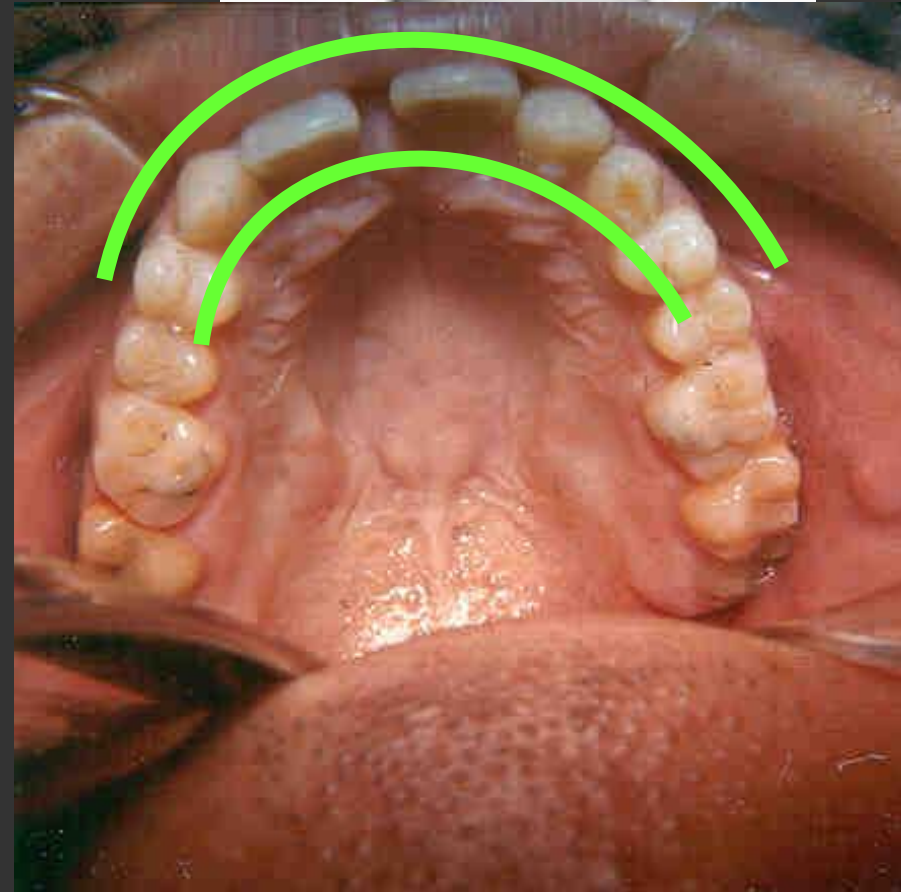
- It has the same geometrical outline and outline as the labial surface.

**Lingual aspect**

- The mesial and distal sides of the crown and root **converge lingually** ( the lingual surface is narrower than the labial surface).

- This convergence to accommodate with the horse shoe shaped of the alveolar process.

The facial surface is larger than the lingual surface.



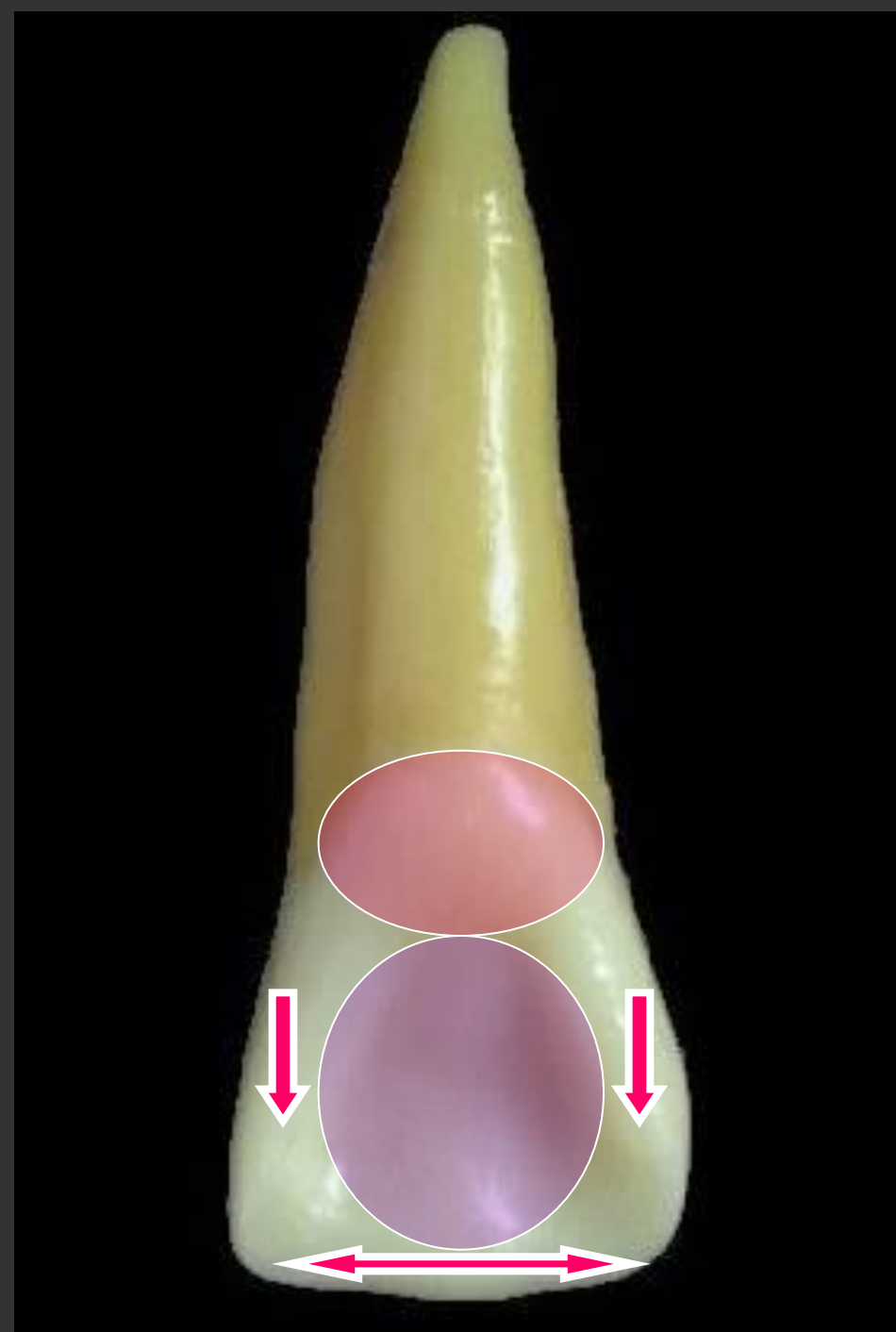
## ☺ Surface anatomy:

### The elevations:

- 1- The cingulum ( present at cervical 1/3.
- 2- Marginal ridges.(well developed MMR and DMR )
- 3- Incisal ridge.

### The depressions:

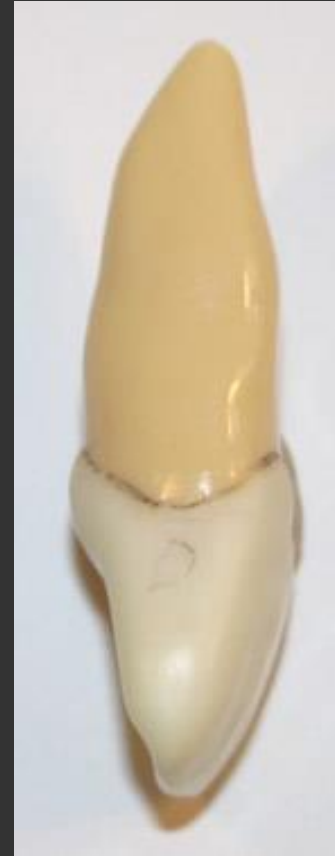
- The lingual fossa ( it lies between the previous elevations).



# Permanent Maxillary Central Incisor Proximal Aspects



**Mesial surface**

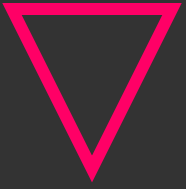


**Distal surface**

## Mesial Aspect

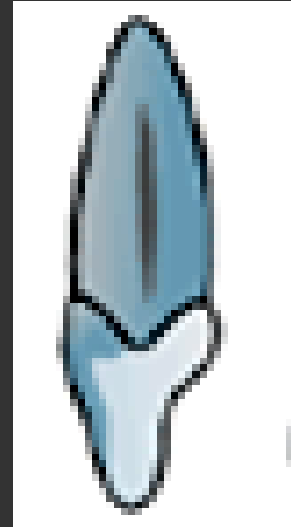


### 1. Geometric shape of crown:



### 2. Outline form:

- labial outline:.....  
→ crest of curvature at.....
- lingual outline: .....  
→ crest of curvature at.....



### 3. Anatomical features:

- Mesial marginal ridge
- **Contact area level**

### 4. Cervical line curvature:

concave rootwise

- Root shape: conical
- Root apex: blunt

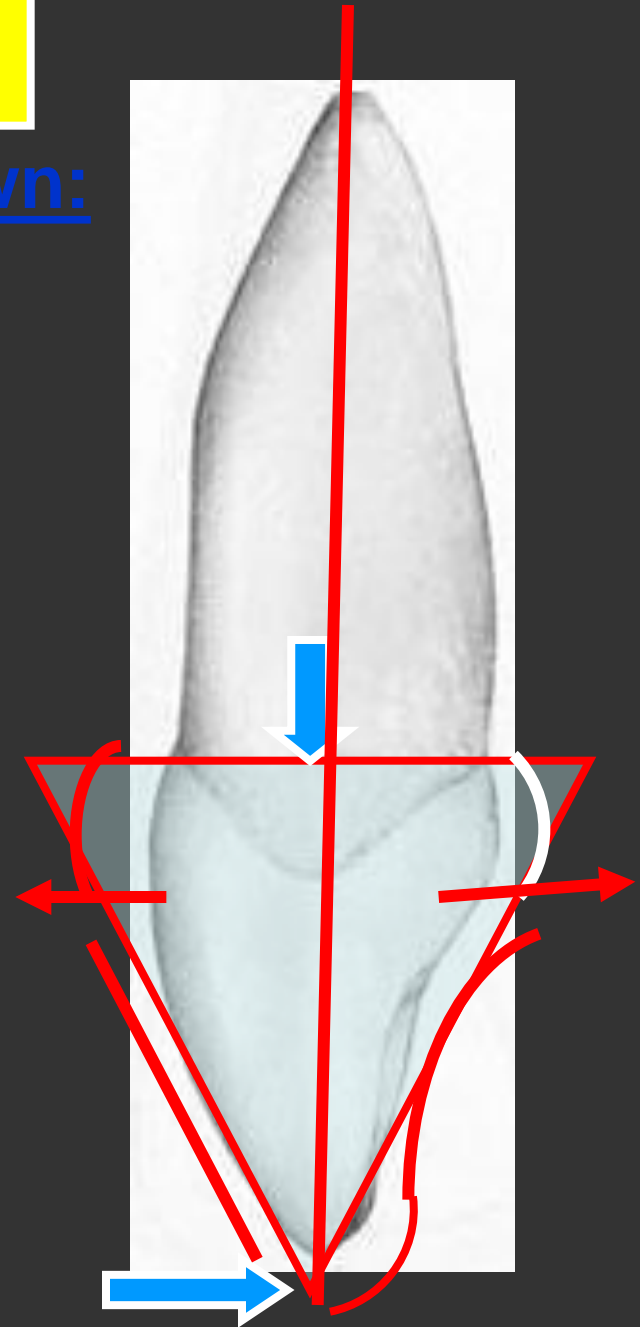
# Mesial aspect

## ☺ Geometrical outline of the crown:

- ☺ Triangular in shape; the base cervically and the apex incisally.
- ☺ The incisal ridge is on a line that bisects the center of the root.

## ☺ The outline:

- ☺ The labial outline is **convex** at cervical 1/3 (cervical ridge).
- Then become **flat** to the incisal ridge.
- ☺ The lingual outline is **convex** at cervical 1/3 (cingulum).
- Then **concave** at the lingual fossa.
- Then **slightly convex** for the incisal ridge.



☺ The mesial cervical line is **convex incisally**. Its curvature is greater than any other teeth in the mouth.

### ☺ Surface anatomy:

☺ The mesial surface is **convex** with the maximum convexity at the the incisal 1/3 ( the mesial contact area)

### ☺ The root:

☺ It is cone shape with blunt apex.



# Permanent Maxillary Central Incisor

**1. Geometric shape of crown:**

**2. Outline form:**

- The reverse of the mesial

**3. Anatomical features:**

- **Contact area level:**

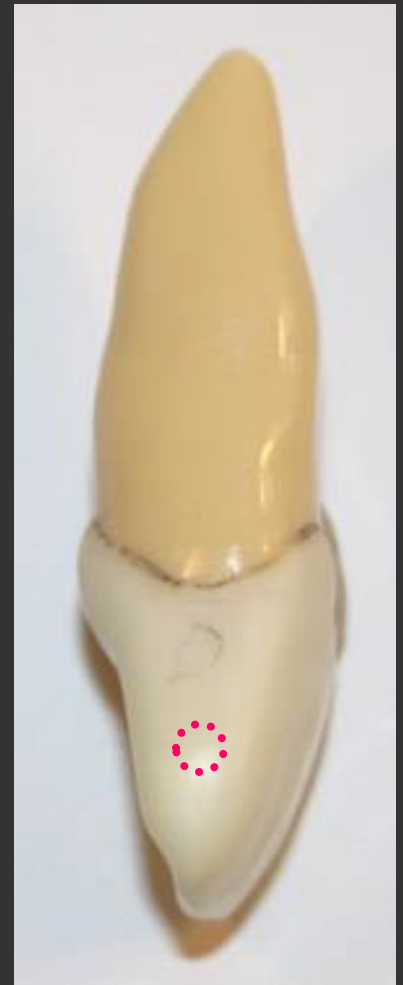
more cervical, broader

**4. Cervical line curvature:**

concave rootwise

- Root shape: conical
- Root apex: blunt, centralized

**Distal  
Aspect**



## Distal aspect

☉ Similar to the mesial aspect but differ in.

-The crown appear **thicker** at the incisal 1/3.

-The cervical line curvature is **less** than mesial ( by 1 mm).

-The contact area located at the junction of incisal and middle 1/3s.(the distal contact area)



# Incisal aspect

☉ Triangular in shape.

The base is placed **labially** and the apex **lingually**.

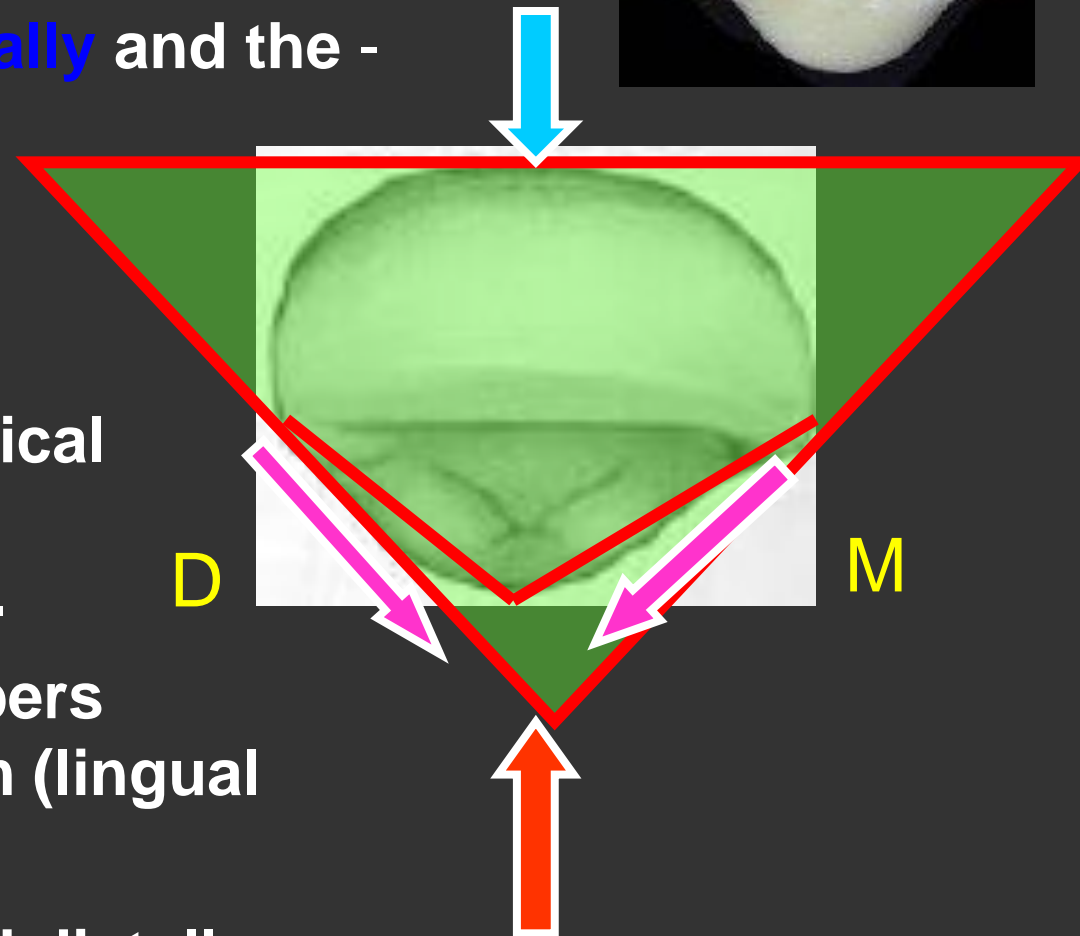
M-D > lab-ling.-

☉ The labial surface is broad and flat. The cervical portion of the crown is convex (cervical ridge).

☉ The lingual outline tapers lingually to the cingulum (lingual convergence).

- The cingulum is shifted distally.

- The crown superimposes the root.



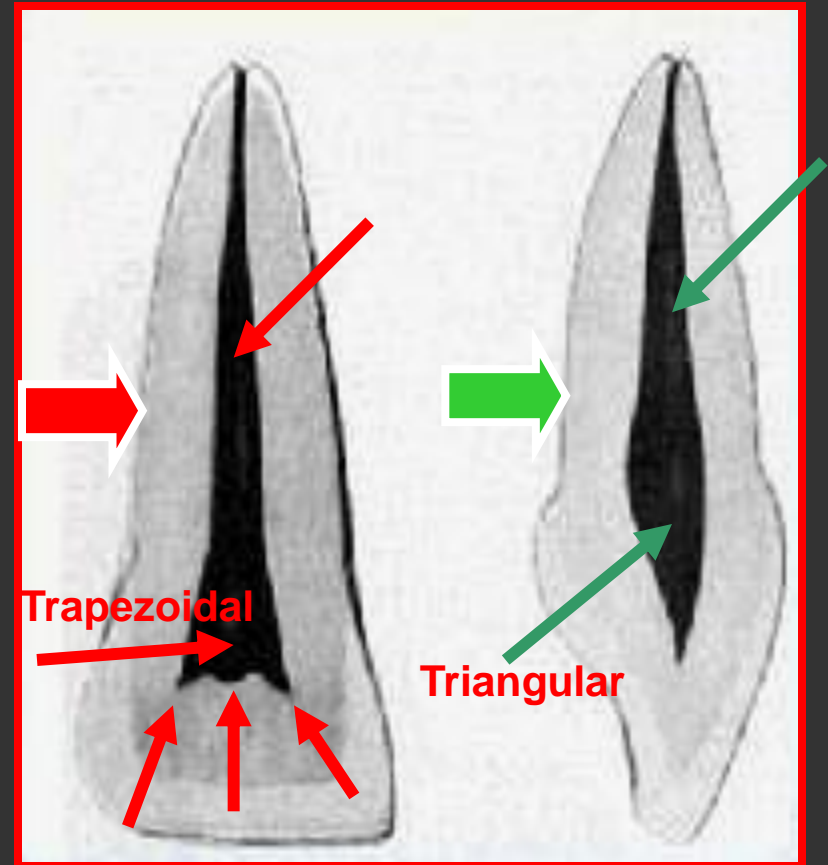
## ☺ Pulp cavity

### ▶ Mesio-distal section

- The pulp chamber is wide conforming the shape of the crown.
- It presents **three pulp horns** corresponding to the three mamelons.
- The root canal tapers towards the apex.

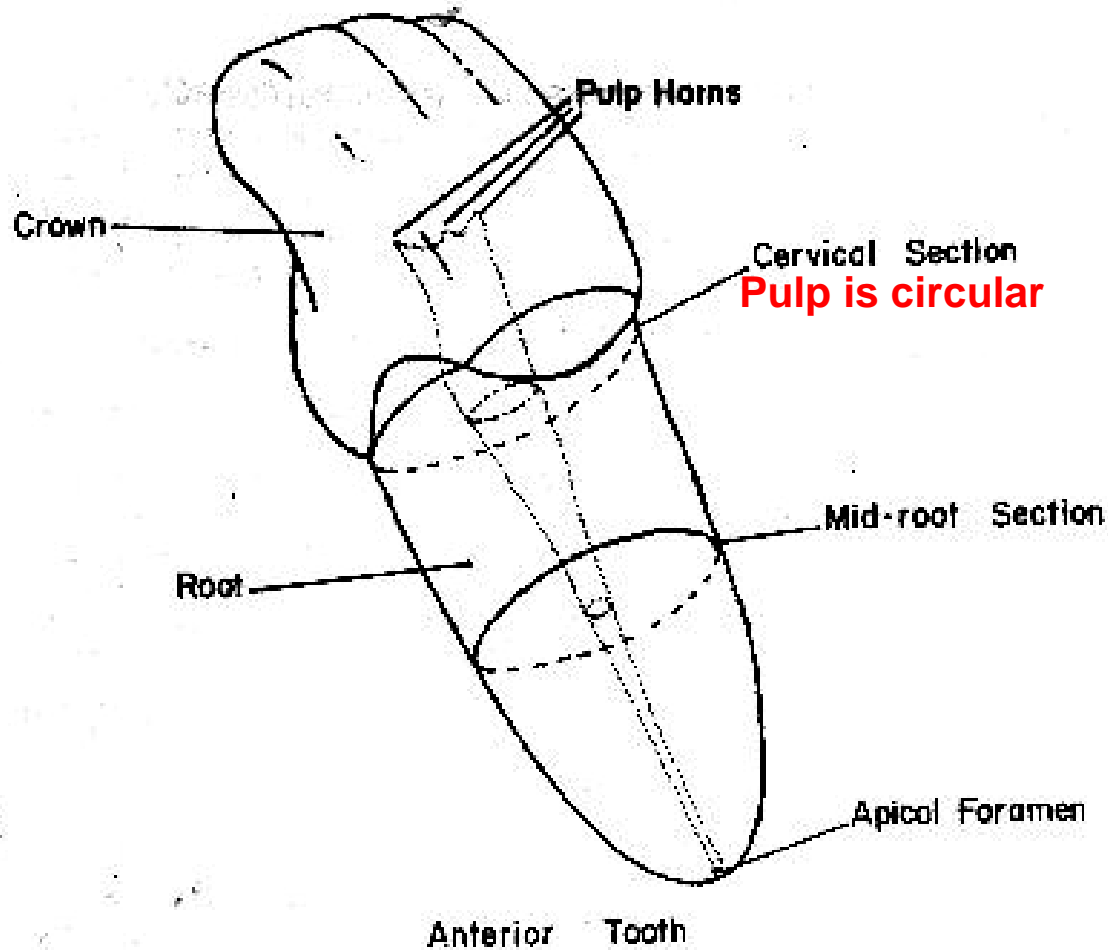
### ▶ Labio-lingual section

- The pulp chamber pointed incisally, then follows the increase in the crown dimension cervically.

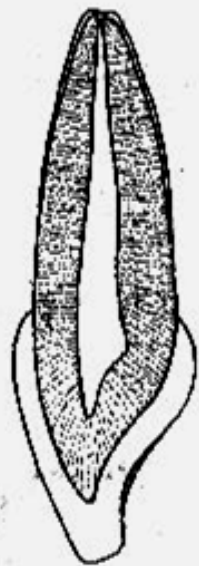


- The root canal tapers gradually as it traverse the root ending in a constriction at the apex (the apical foramen).

# Pulp Cavity



# Pulp Cavity



Labiolingual Section  
Mesial View



Mesiodistal Section  
Lingual View



Cervical Section



Mid-Root Section



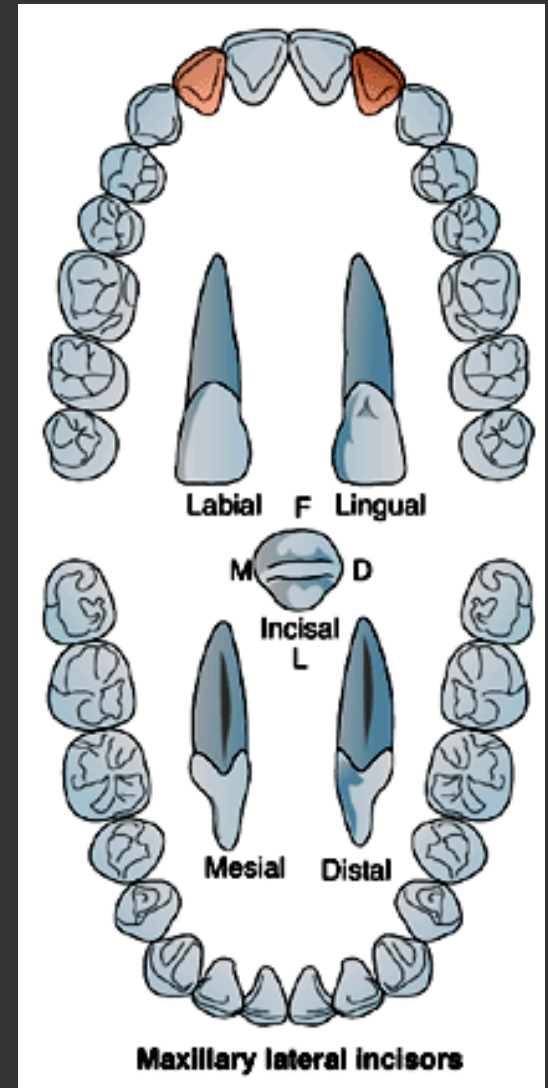
# Permanent Maxillary Lateral Incisor

Dr Magdy ELabasiry, BDS, MS(Egypt), Ph. D.(Egypt.)

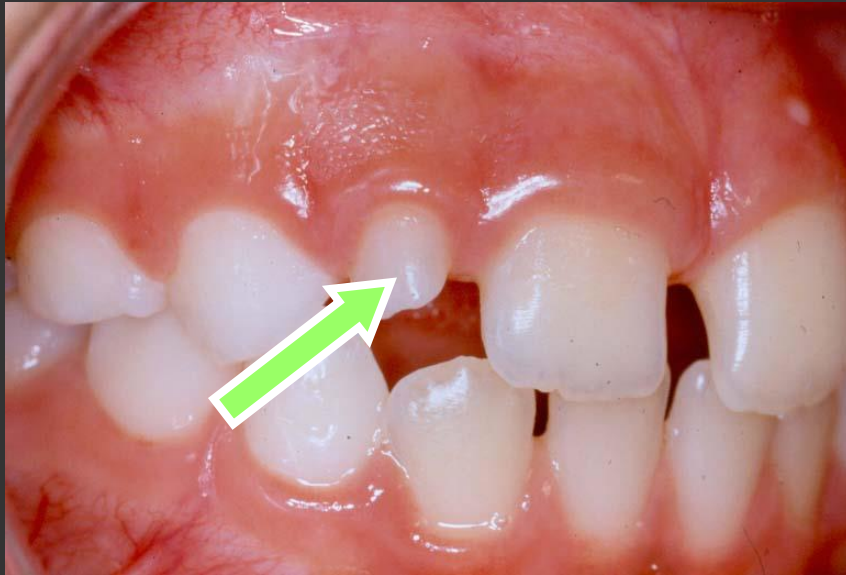
# Permanent Maxillary Lateral Incisor

## General features:

- Labially and lingually the crown is **trapezoid** in shape (short side: cervically)
- Mesially and distally the crown is **triangular** in shape
- Labial and lingual "crests of curvature" are at the cervical third



# Malformations Of The Upper Permanent Lateral Incisor



Peg-shaped lateral incisor.



Missing lateral incisor.



# Chronology of Permanent Maxillary Lateral Incisor

Appearance of dental organ ⇒ 5 m. l. U.

Beginning of calcification-----⇒ 1 year

Crown completion-----⇒ 4-5 years

Eruption -----⇒ 8-9 years

Root completion-----⇒ 11 years

# Permanent Maxillary Lateral Incisor



**Labial**



**Lingual**



**Mesial**



**Distal**



**Incisal**

- The crown resembles that of the upper central
- It is smaller in all dimensions than the central incisor but the root is longer

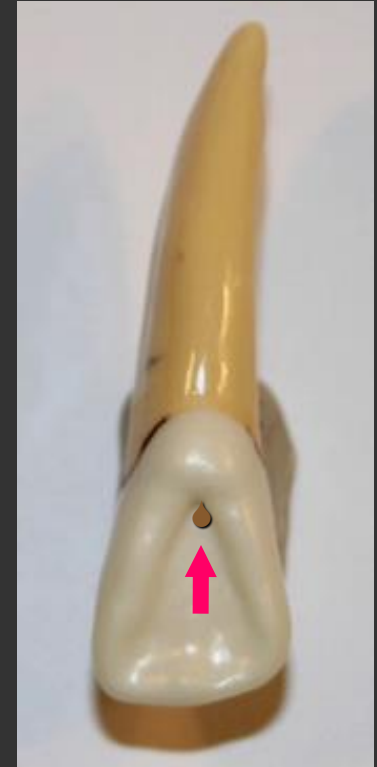
# Permanent Maxillary Lateral Incisor Variations from Normal:

1. Congenitally missing

2. Peg lateral

3. Lingual pit & groove

4. Lingual tubercle



## No. of surfaces

It has four surfaces and incisal aspect.



Labial



Lingual



Mesial



Distal

## No. of roots

It has one root

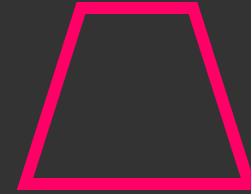
Incisal



# Permanent Maxillary Lateral Incisor

Labial Aspect ⇒ More convex

1. **Geometric shape of crown:**

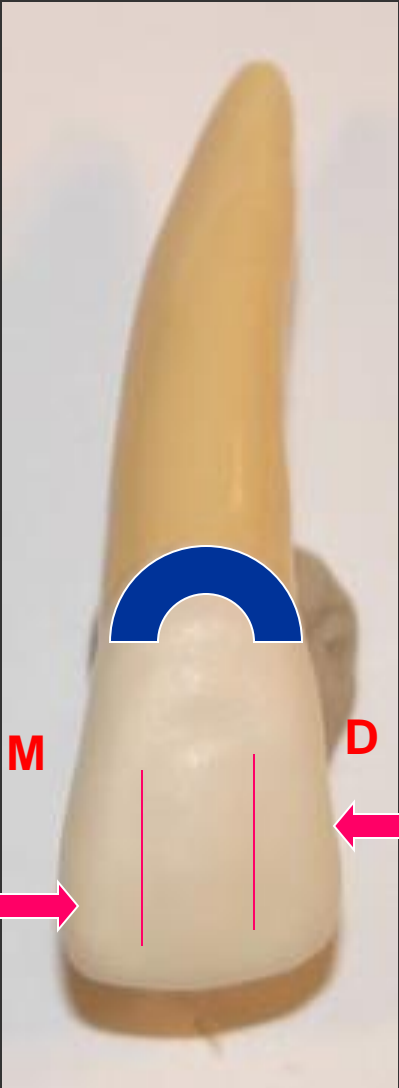


2. **Outline form:**

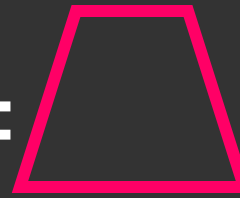
- Mesial outline: straight crest of curvature at the junction of middle and incisal 1/3s (contact area).
- Distal outline: convex crest of curvature at the center of middle 1/3.
- - DI angle: more rounded than MI angle

• **Anatomical features:**

- elevations & depressions (less prominent)
- **Root shape:** conical
- **Root apex:** sharp, curved distally



1. **Geometric shape of crown:**



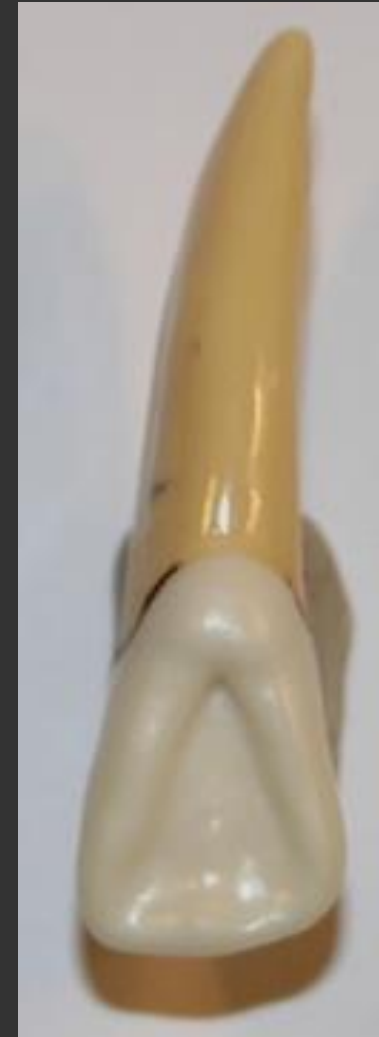
Lingual Aspect

2. **Outline form:**

- Is similar to that of upper central

3. **Anatomical features:**

- **Elevations:** (more prominent)
  - Cingulum → in cervical 1/3
  - Mesial & distal marginal ridges
  - Incisal ridge
- **Depressions:**
  - Lingual fossa: deeper & circumscribed
  - A palatal pit is enclosed by cingulum
  - Root shape: cone shape
  - Root apex: pointed



## ☉ Surface Anatomy:

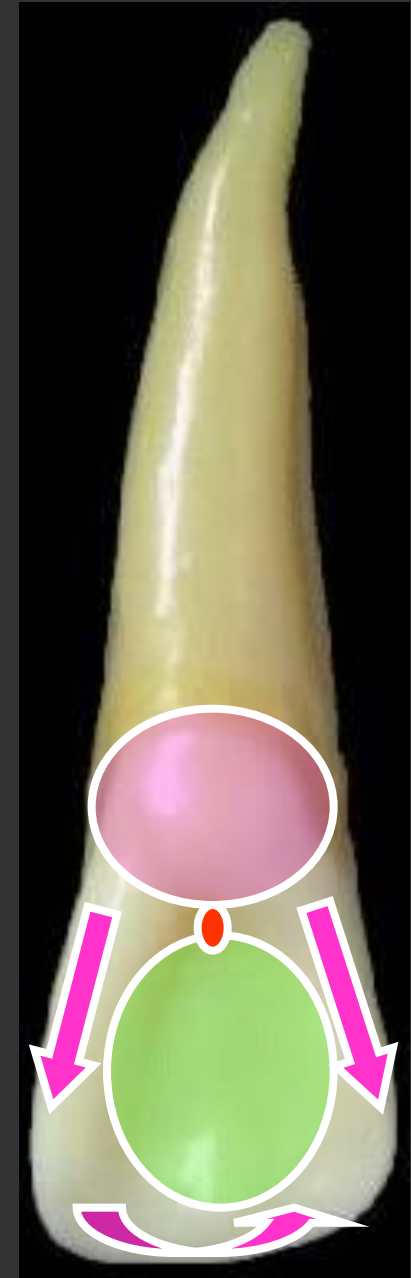
### The elevations:

- 1- The cingulum ( present at cervical 1/3).
- 2- Marginal ridges.
  - Mesial marginal ridge.
  - Distal marginal ridge.
  - Incisal ridge.

### The depressions:

- The lingual fossa ( it lies between the previous elevations).
- Notice the lingual pit(prone to decay).

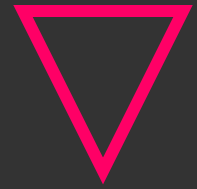
☉ All elevations and depression are more developed than the upper central incisor.



# Permanent Maxillary Lateral Incisor

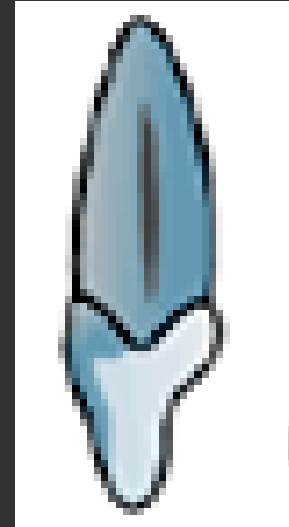
Mesial  
Aspect

## 1. Geometric shape of crown:



## 2. Outline form:

- labial outline:.....  
→ crest of curvature at.....
- lingual outline: .....  
→ crest of curvature at.....



## 3. Anatomical features:

- Mesial marginal ridge
- **Contact area level**

## 4. Cervical line curvature:

concave rootwise

- Root shape: conical
- Root apex: sharp



☺ The mesial cervical line is convex incisally.

## ☺ Surface anatomy:

☺ The crown is **shorter**(inciso-cervically).

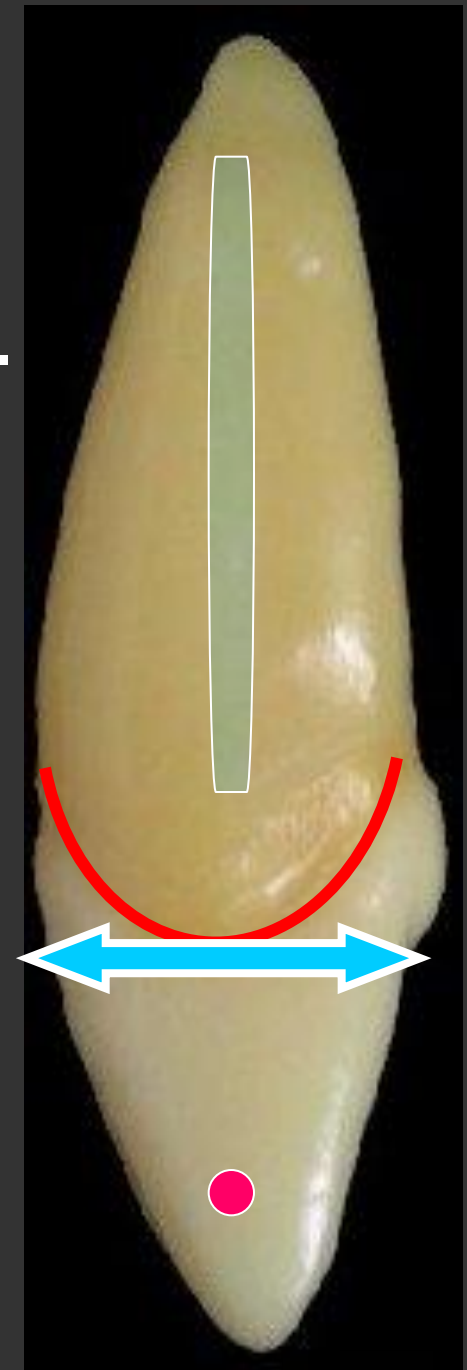
The labio-lingual measurement is **less** than the central incisor by about 1mm.

☺ The incisal portion is **thicker** than in 1 and on a line with the center of the root.

MCA is at junction of incisal and middle 1/3s

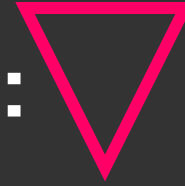
## ☺ The root:

☺ It is cone shape with blunt apex. It has **developmental depression**.



# Permanent Maxillary Lateral Incisor

**1. Geometric shape of crown:**



**2. Outline form:**

- The reverse of the mesial

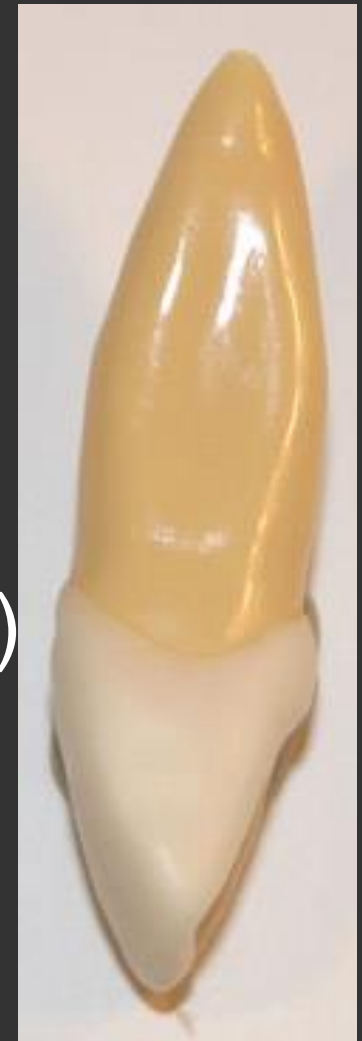
**3. Anatomical features:**

- **Contact area level:**
- more cervical, broader

**4. Cervical line curvature:**

- concave rootwise (less than mesial)
- Root shape: conical, more convex
- Root apex: sharp, centralized
- Developmental depression on root

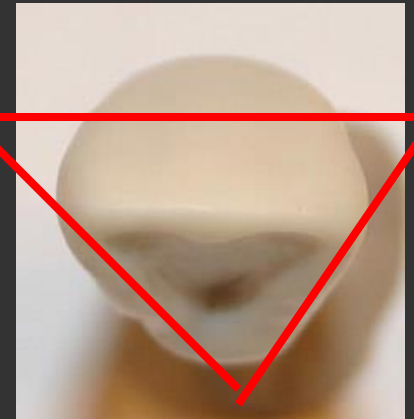
**Distal  
Aspect**



# Permanent Maxillary Lateral Incisor

- Triangular Shape (smaller in size)
- The crown superimposes the root
- Labial outline: more rounded
- Lingual convergence
- The MD dimension = lab. Ling. dimension
- Cingulum is centralized

Incisal Aspect



## ☺ Pulp cavity

- **Is similar but smaller than that of central incisor.**
- **It consists of a single root canal and a pulp chamber.**



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IN THE NAME OF ALLAH THE MOST  
GRACIOUS THE MOST MERCIFUL

# Permanent Mandibular Incisors

**Dr Magdy ELabasiry, BDS, MS(Egypt), Ph. D.(Egypt.)**

# Permanent Mandibular Incisors

They are four  
in number.

They have **smaller**  
mesio-distal dimension  
than any of the other  
teeth.

The contact areas:  
near the incisal edge.



## Relations

The two central incisors make contact **mesially** with each other and **distally** with the mesial surface of the lateral incisor.





**The crown and root are narrow mesiodistally but are wide labiolingually**



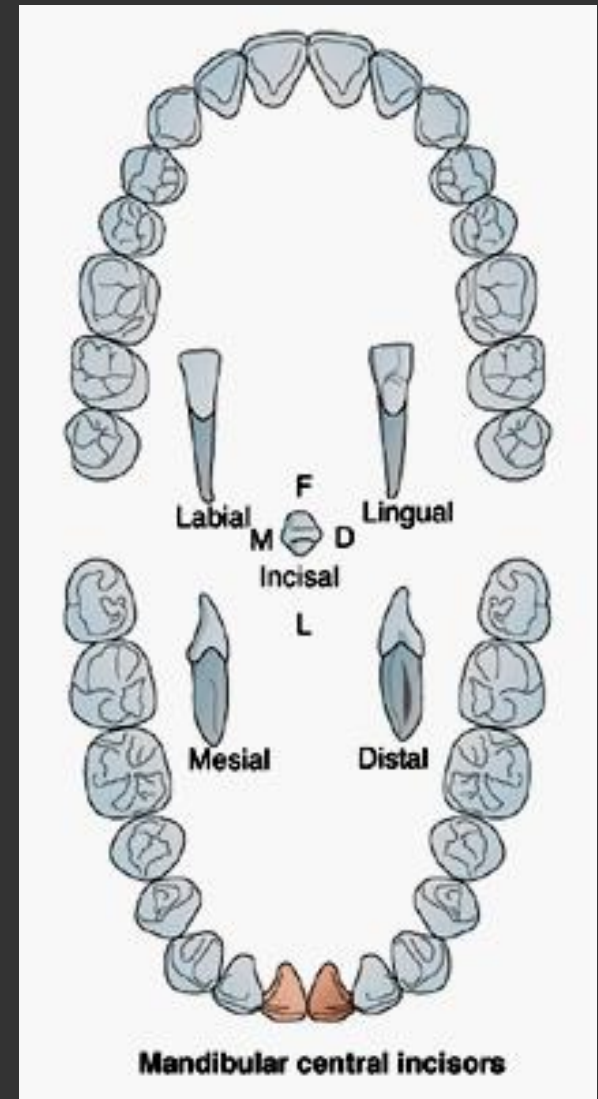
**The smallest tooth in the permanent dentition**

**Labial surface: *lingually inclined***

# Permanent Mandibular Central Incisor

## Chronology:

- Appearance of dental organ 5 m.i.u
- First evident of calcification 3-4 m
- Enamel completed 4-5 y
- Eruption 6-7 y
- Root completed 9 y



## ■ Type and function:

- This tooth has the function of **incising food** as well as **esthetic**.

## ■ No. of lobes:

- It has **four** lobes (three mamelons and cingulum).



## ■ Relations:

- Mesially :the two central incisors make contact with each other
- Distally with the mesial surface of the lateral incisor.

# Permanent Mandibular Central Incisor

It has five surfaces.



Labial



Lingual



Mesial



Distal

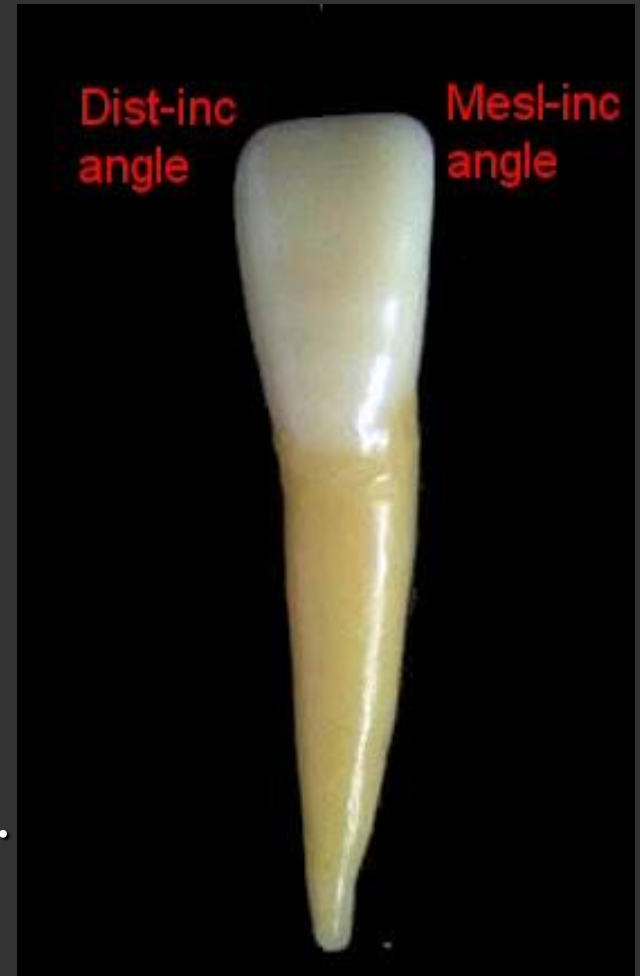


Incisal

- No. of roots:
- It has one root.

# Labial Aspect

- Geometrical shape of crown :  
**Trapezoid**
  - The short side cervically.
  - The long side incisally.
- Mesial & Distal outlines:  
**straight**, then taper evenly to the narrow cervix.
- Incisal margin:
  - It is straight and perpendicular to the long axis of the tooth(mamelons).
- The cervical line :  
convex root-wards.



-The mesio and disto-incisal angles are relatively **sharp**. The disto-incisal is barely more rounded.

### ★Surface anatomy:

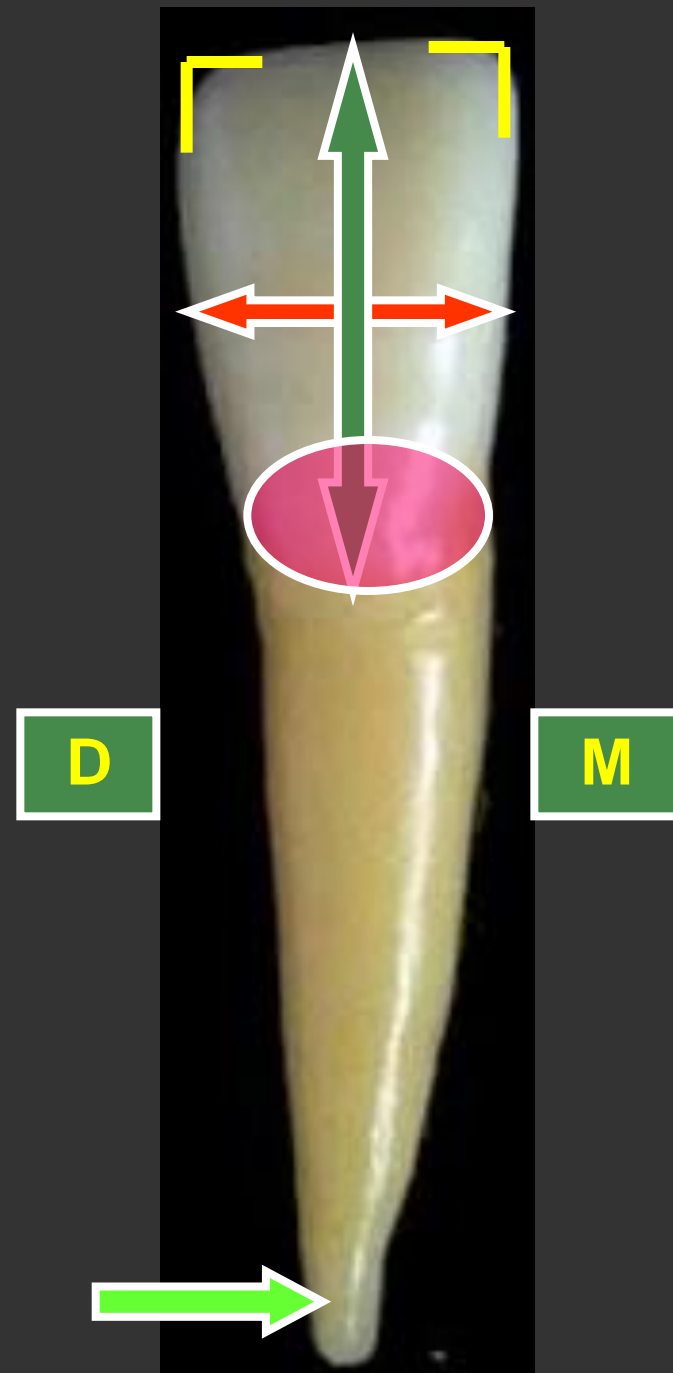
-The surface is **convex** both mesiodistally and incisocervically.

-Cervical ridge located at cervical third.

### ★The root:

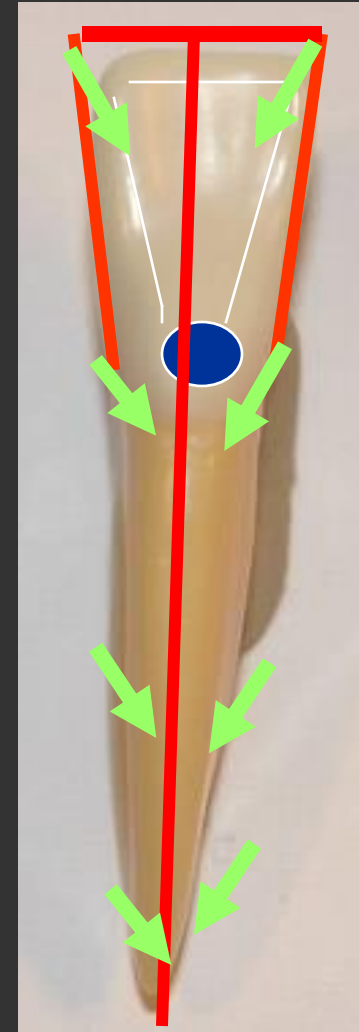
- It has a single root. Its labial surface is narrow and convex.

- It tapers evenly to apical 1/3, then curves distally with a pointed apex. Sometimes the root is straight.



# Lingual Aspect

- Reverse of labial aspect but narrower due to lingual convergence
  - This convergence of the tooth to be accommodated within the horse shoe shape of the alveolar process.
- Anatomical features:  
Less developed cingulum, centered



## ⊕ Surface anatomy:

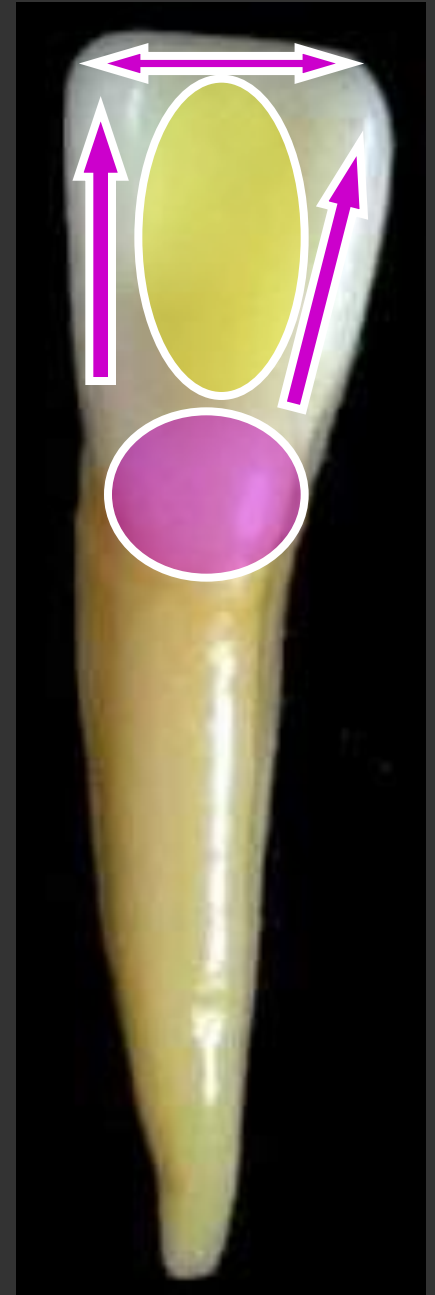
### The elevations:

- 1- The cingulum ( present at cervical 1/3).
- 2- Marginal ridges.
  - Mesial marginal ridge.
  - Distal marginal ridge.
- 3- Incisal ridge.

### The depressions:

- The lingual fossa ( it lies between the previous elevations).

⊕ All elevations and depression are poorly developed than the upper incisor.



# The Mesial Aspect

## ☺ Geometric outline of the crown:

☺ Triangular in shape; the base **cervically** and the apex **incisally**.

☺ The incisal ridge is lingual to a line that bisects the centre of the root.

## ☺ The outline:

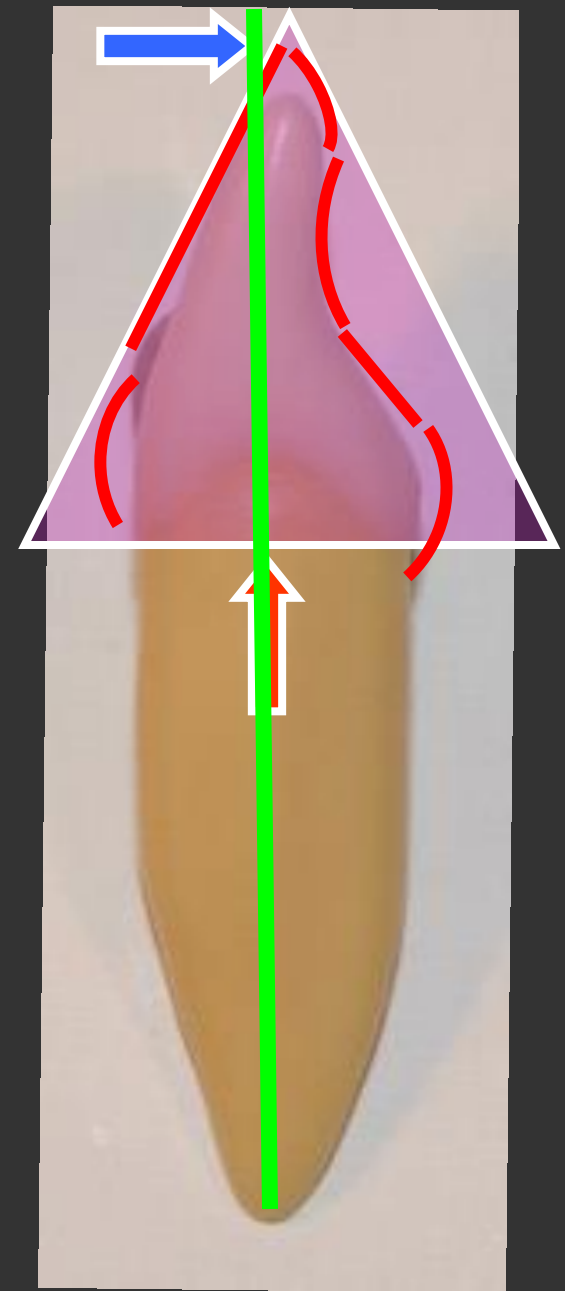
☺ The labial outline is convex at cervical 1/3 (cervical ridge).

- Then become straight to the incisal ridge.

☺ The lingual outline is convex at cervical 1/3 (cingulum).

- Then straight to slightly concave at the lingual fossa.

- Then slightly convex for the incisal ridge.



# The Mesial Aspect

## ☺ The root:

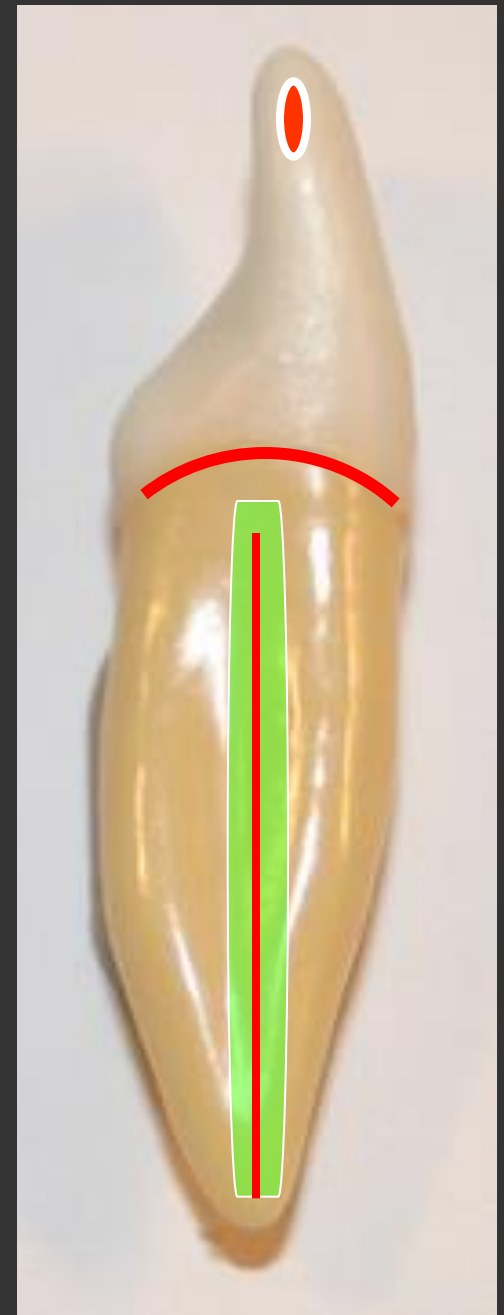
- ☺ Is flat with longitudinal developmental depression.
- ☺ The root tapers apically (pointed apex).



# The Distal Aspect

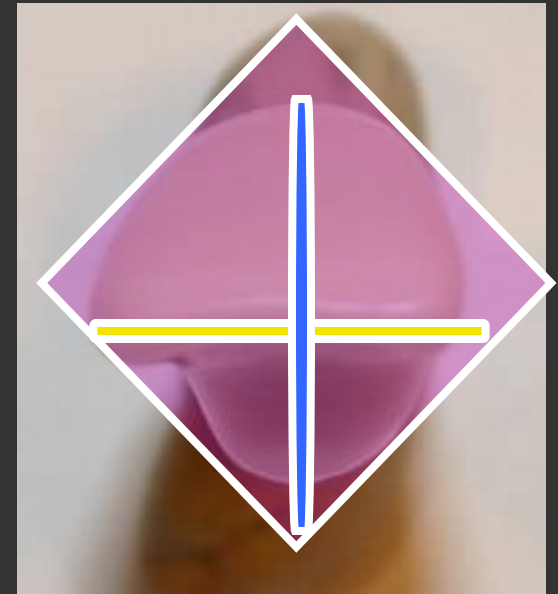
☺ Similar to the mesial aspect but differs in.

- The cervical line curvature is less than mesial ( by 1 mm).
- The distal developmental depression on the root is deeper than mesial and may have developmental groove.
- The distal contact area at the same level as the mesial surface.

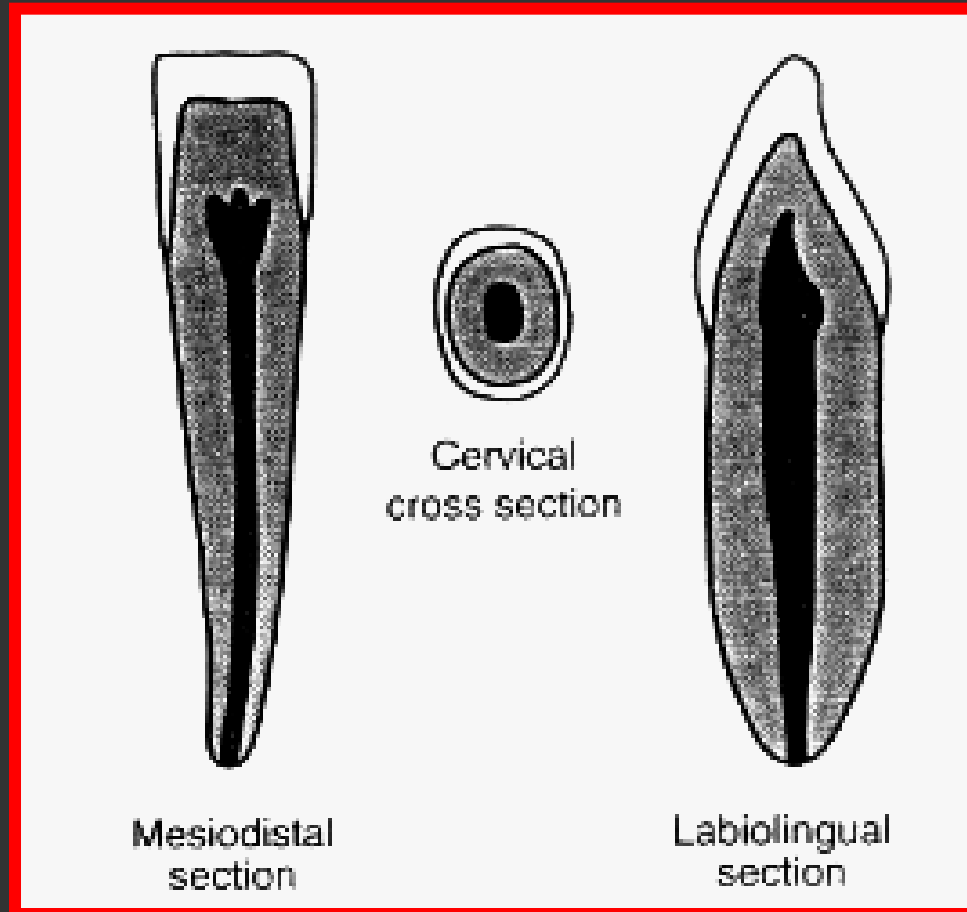


# Incisal aspect

- The incisal aspect: diamond shape (greater labiolingually).
- The incisal edge is straight.
- The incisal edge is perpendicular to - a line bisecting the crown labiolingually.
- The labial surface is slightly convex - at the incisal 1/3
- Cingulum centralized (characteristic feature).



# Pulp cavity



## ☺ Pulp cavity

### ▶ Labio-lingual section

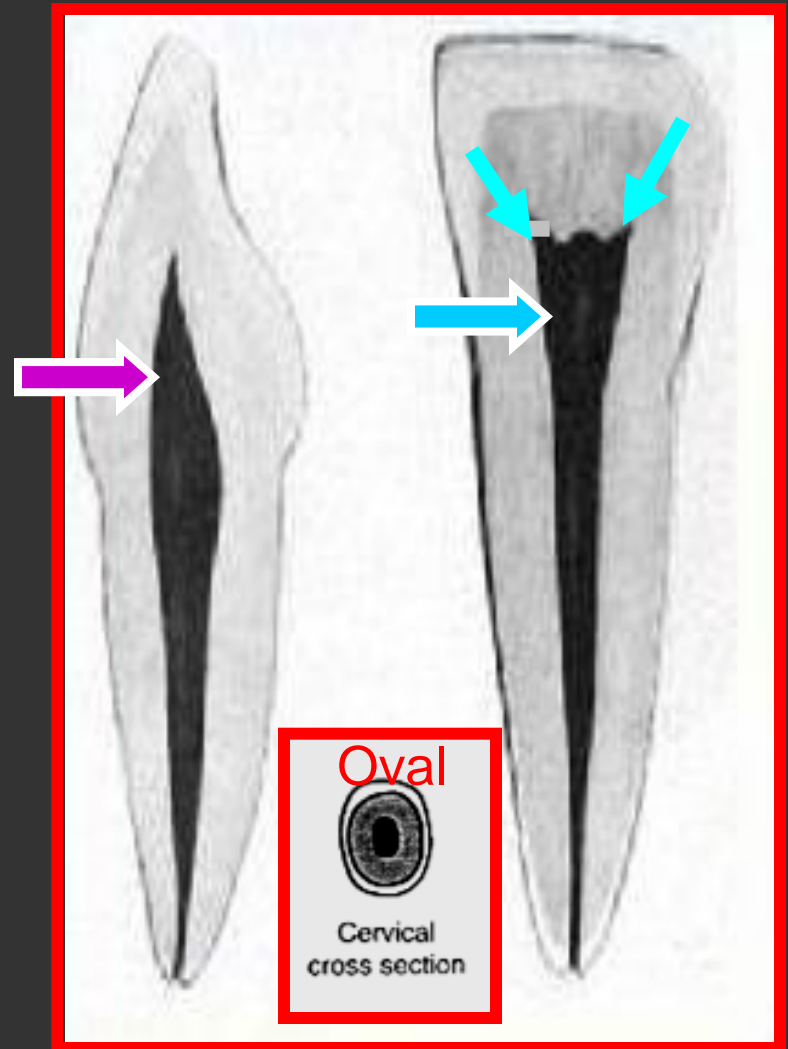
- The outline of the pulp cavity conform to the crown and root outline.

### ▶ Mesio-distal section

- The pulp chamber has 2 or 3 pulp horns. The root canal tapers to the apical foramen.

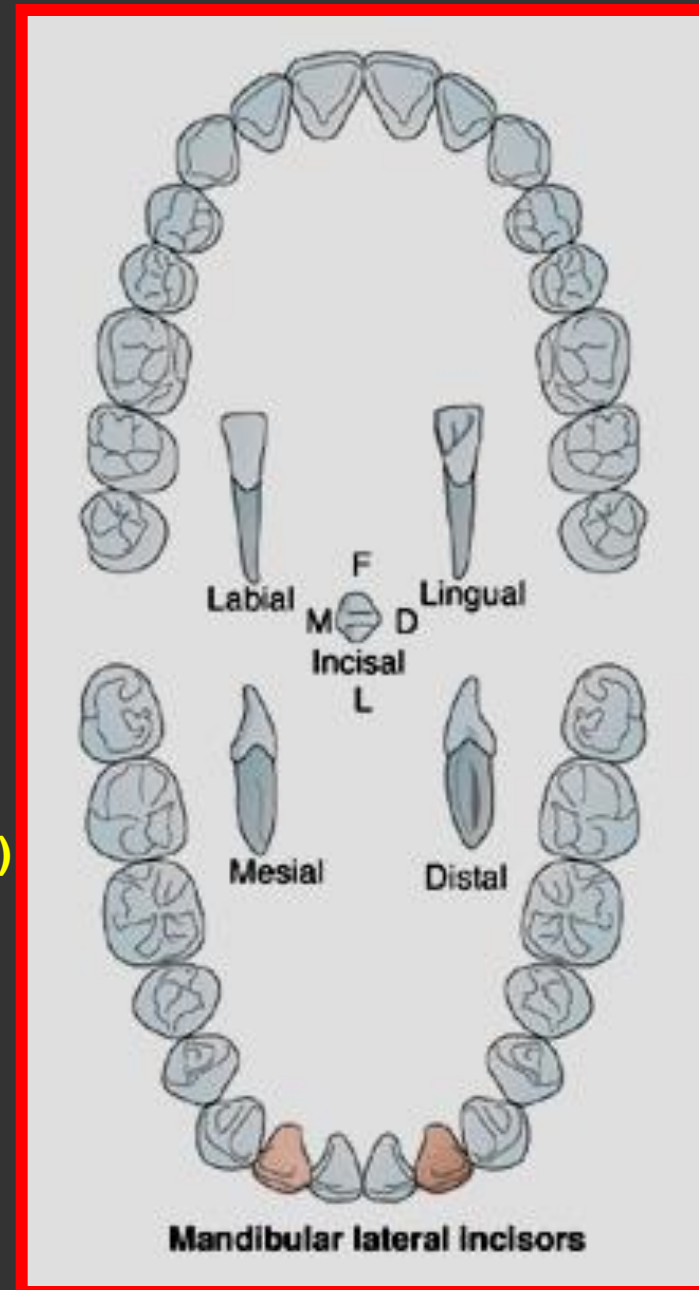
### ▶ Cervical cross section

- Oval and usually constricted mesio-distally and wide labio-lingually.



# Mandibular Lateral Incisor

Prof. Abdelhamied Y. Saad, BDS. MS(Egypt), Ph.D.(U.S.A.)



## Chronology

Appearance of the dental organ	5 m.i.u
First evidence of calcification	3-4 months.
Enamel completed	4-5 years
Eruption	7-8 years
Root completed	10 years

## Type and function

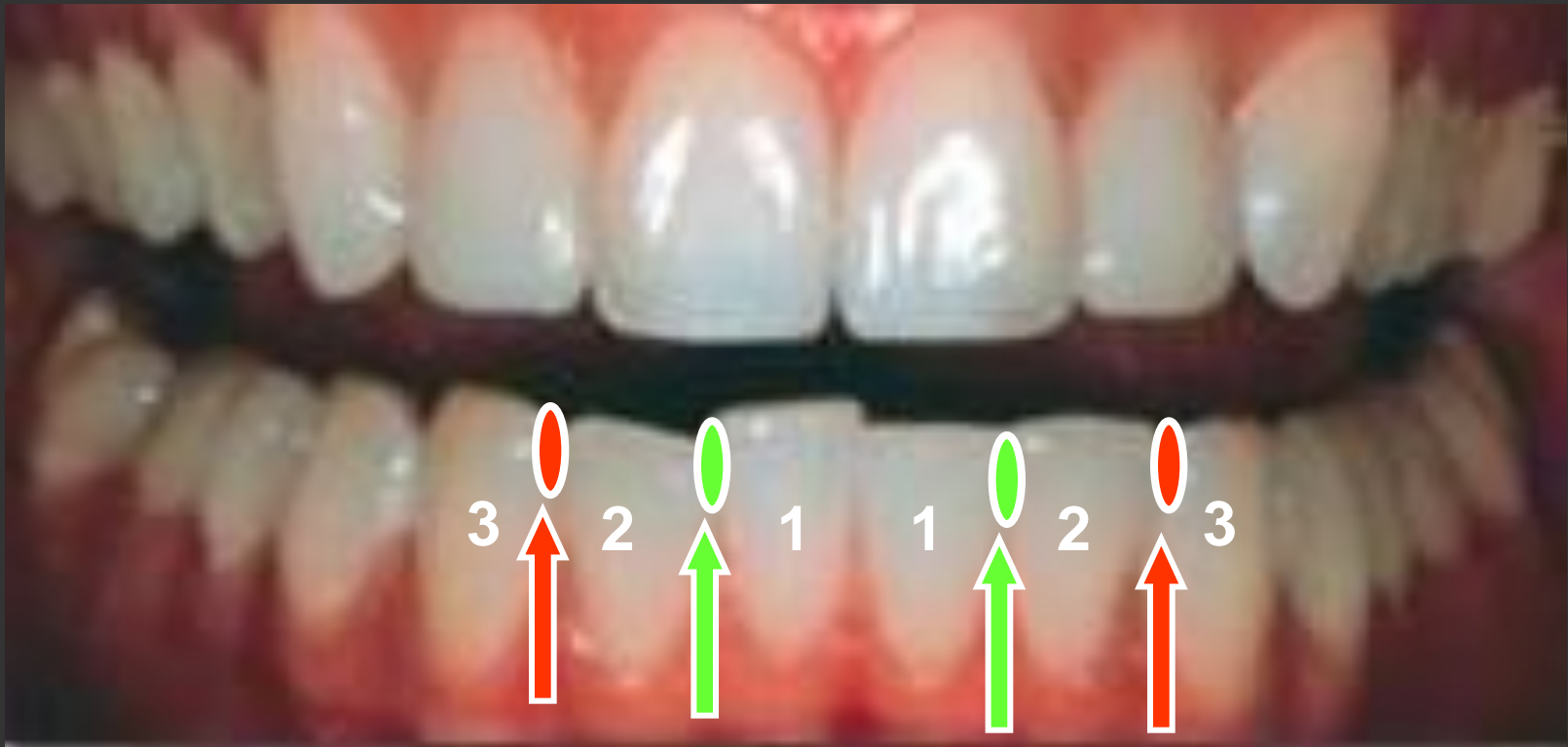
This tooth has the function of **incising** food as well as **esthetic**.

## No. of lobes

It has **four lobes** (three mamelons and cingulum)

## Relation

The lateral incisors make contact **mesially** with the distal surface of the central incisors and **distally** with the mesial surface of the canines.



# Permanent Mandibular Lateral Incisor

It has five surfaces.



**Labial**



**Lingual**



**Mesial**



**Distal**

No. of roots

It has one root.



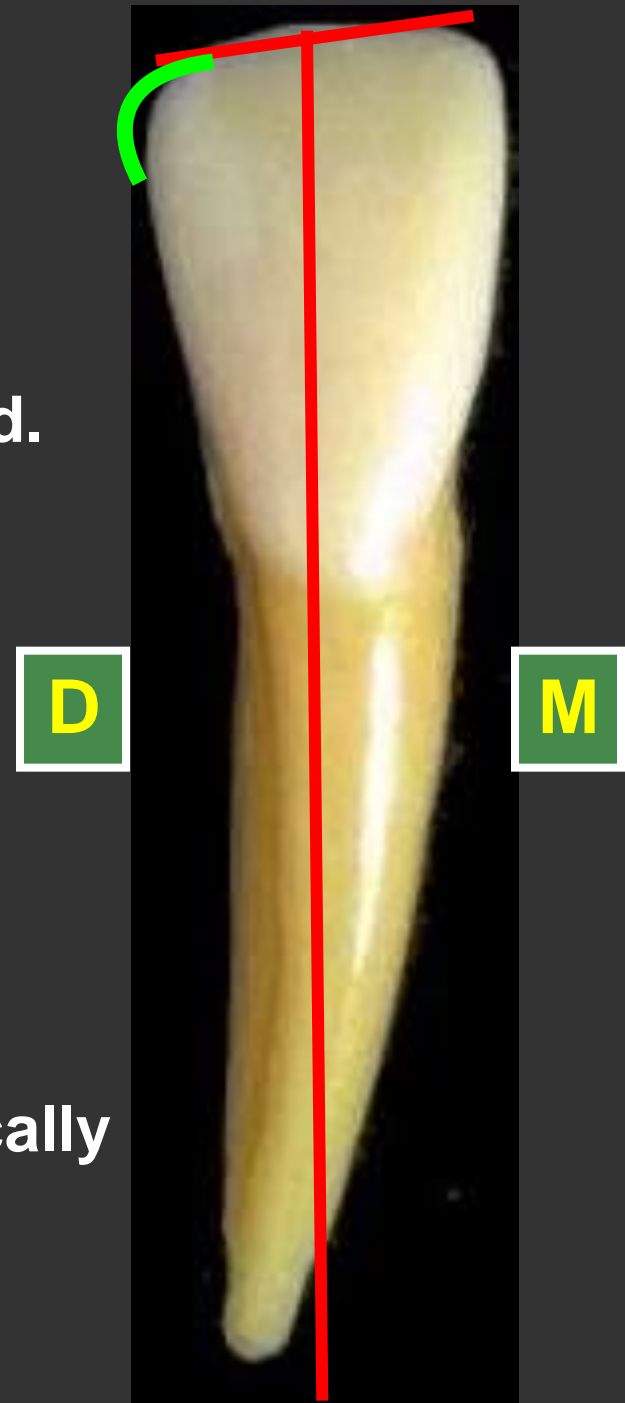
**Incisal**

# Surface Anatomy

☉ It appears to have nearly the same form as the mandibular central incisor, **SO** direct comparison will be discussed.

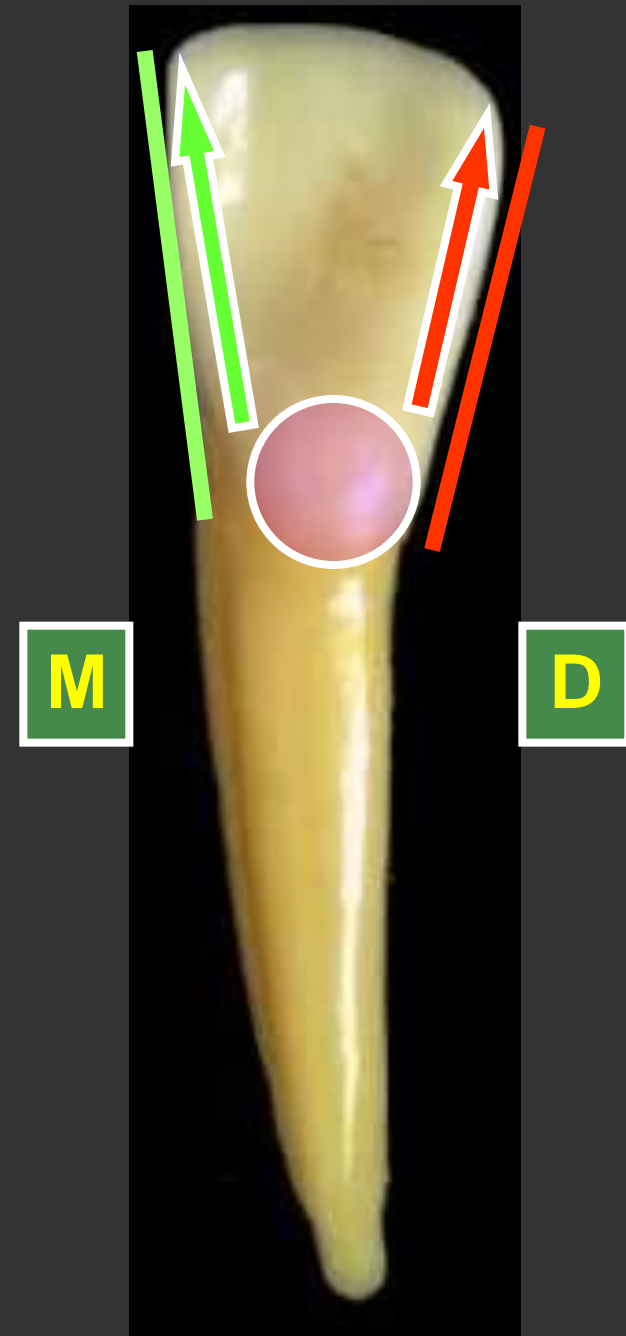
## Labial aspect

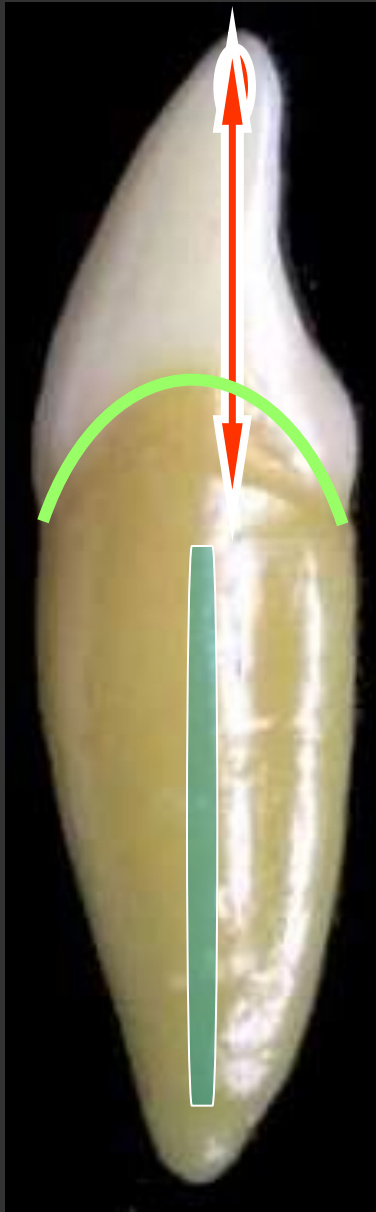
- It is **larger** than the central by about 0.5 mm in all dimensions.
- The incisal edge is **straight** and **slop** downward in a distal direction.
- The distal angle is more **rounded**.
- The distal contact area is more cervically
- The root is **longer** (14mm) than the central incisor (12mm).



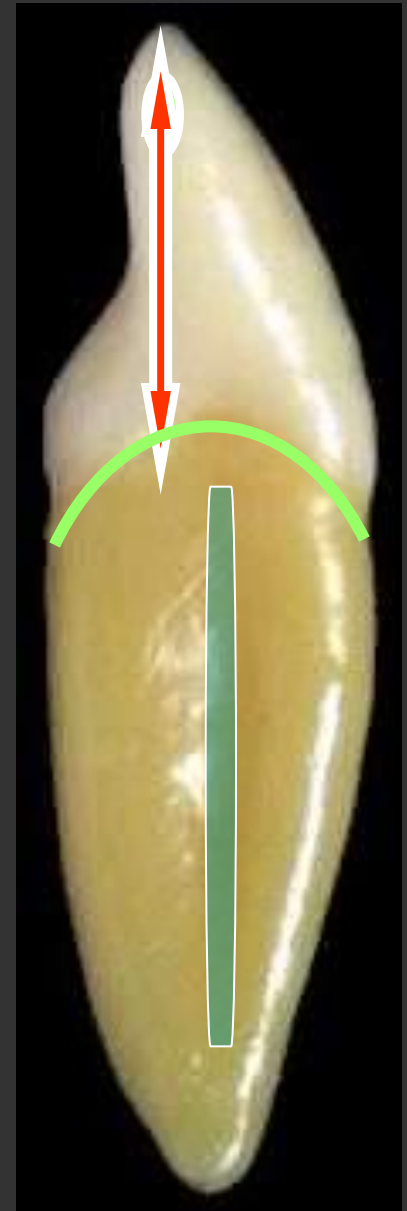
# Lingual aspect

- The **mesial outline** is longer than the **distal outline**.
- The **mesial marginal ridge** is longer than the **distal marginal ridge**.
- The **cingulum** is deviated distal to the center of the lingual surface.





- The distal surface is shorter inciso-cervically.
- Both cervical lines are less than those of the central incisor.
- The **distal** contact area is more cervical than the **mesial** one.
- Root depressions are seen on both the mesial and distal surfaces.



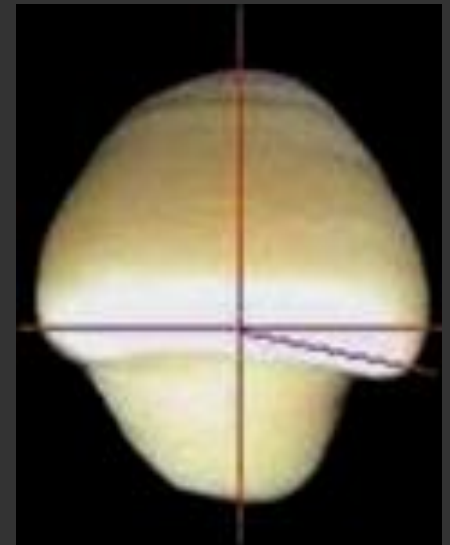
Mesial aspect

Distal aspect

# Incisal Aspect

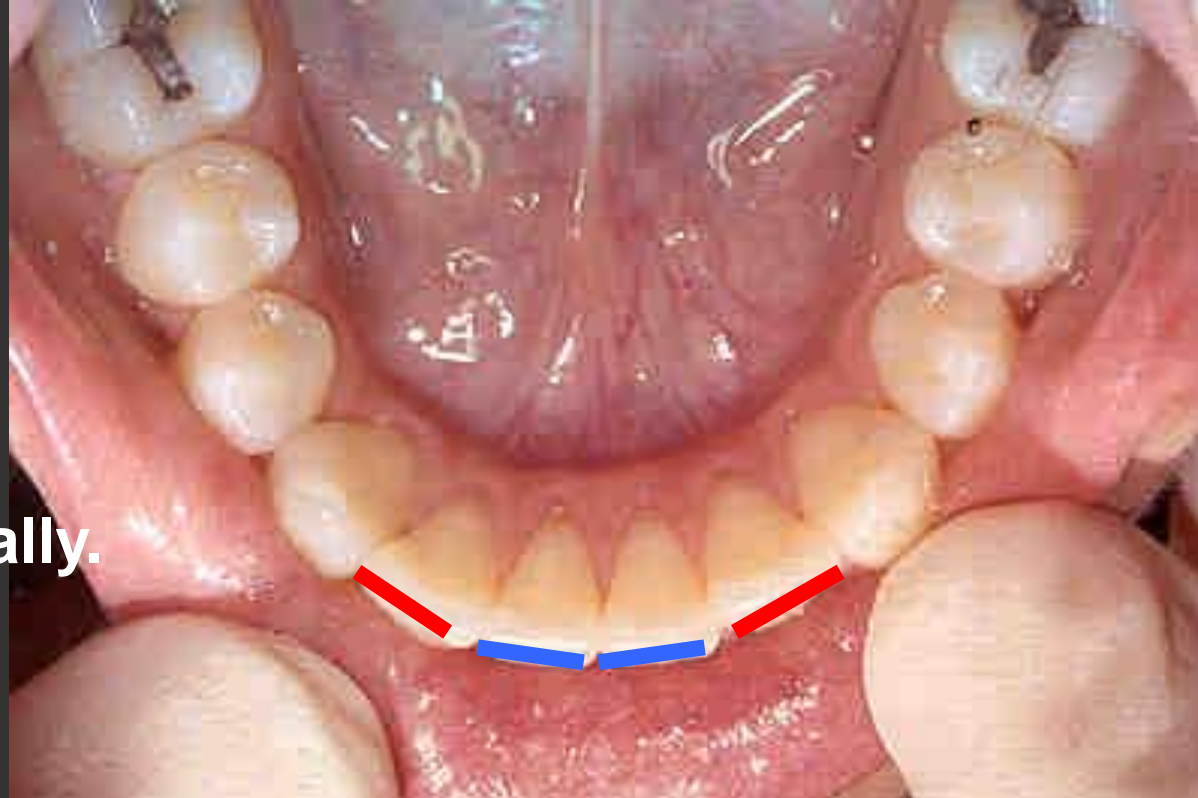
- The incisal ridge is **tilted** distally and lingually as well as the whole tooth.
- The cingulum is shifted to the distal.
- This allow the tooth to follow the dental arch curvature.
- So the incisal edge is not at a right angle to a line bisecting the tooth labiolingually.

The best aspect to identify this tooth from lower central incisor



# Incisal aspect

- The crown appear to be twisted on root.
- The distal lobe is larger than the mesial lobe.
- The **incisal edge inclines** disto-lingually.
- The cingulum is deviated distally.



- **This form fits the narrow U –shaped mandibular arch.**

**Identify the aspect and tell THREE differences between the lateral and central incisor.**

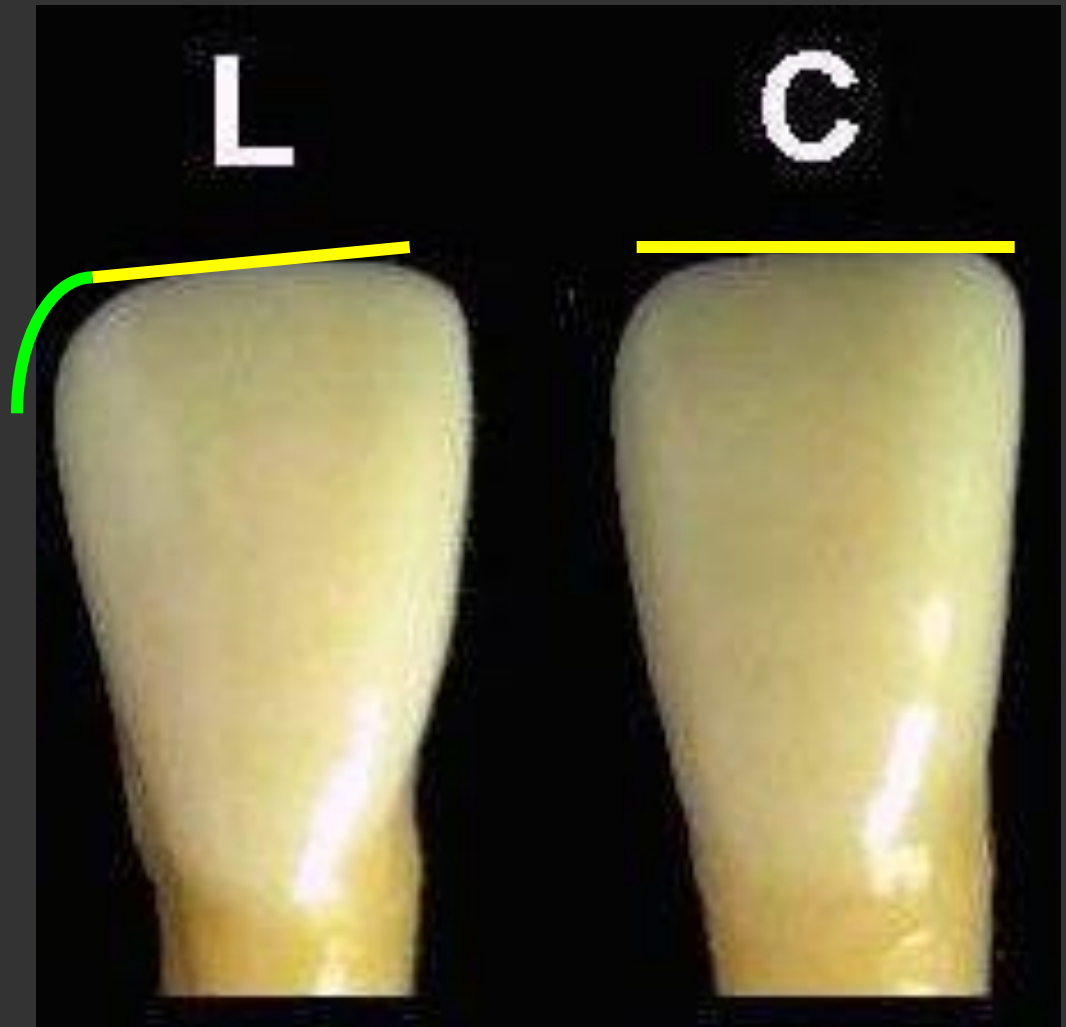
**Answer**

☺ Labial aspect.

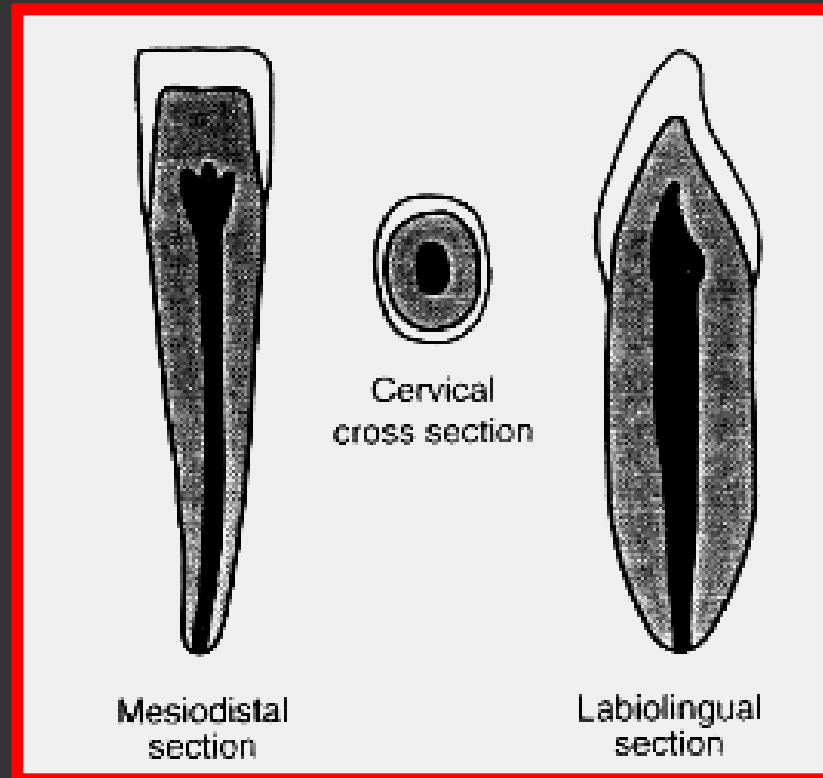
1- The size.

2- Incisal edge.

3- The incisal angles.



# Pulp cavity



Very similar to that of lower central incisor.



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

IN THE NAME OF ALLAH THE MOST  
GRACIOUS THE MOST MERCIFUL

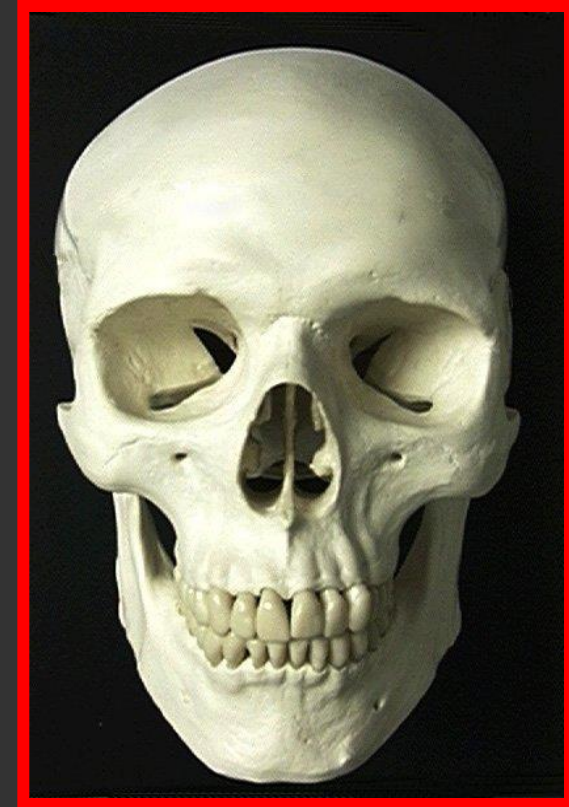
# The Permnanant Canines

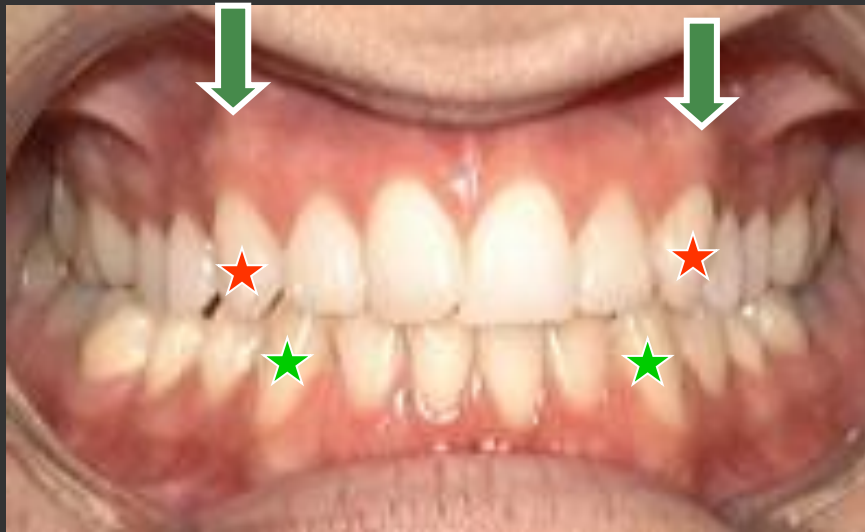
**Dr Magdy ELabasiry, BDS, MS(Egypt), Ph. D.(Egypt.)**

# The Permanent Canines

## General features:

- 2 Max. & 2 Mand.
- Longest tooth in the dental arch.
- Convex on all surfaces(self-cleansing quality).
- Highly developed middle lobe(lab. ridge)
- Lab.&ling. : pentagonal or trapezoidal.
- M&D: triangular.
- Functions: cutting & tearing of food.



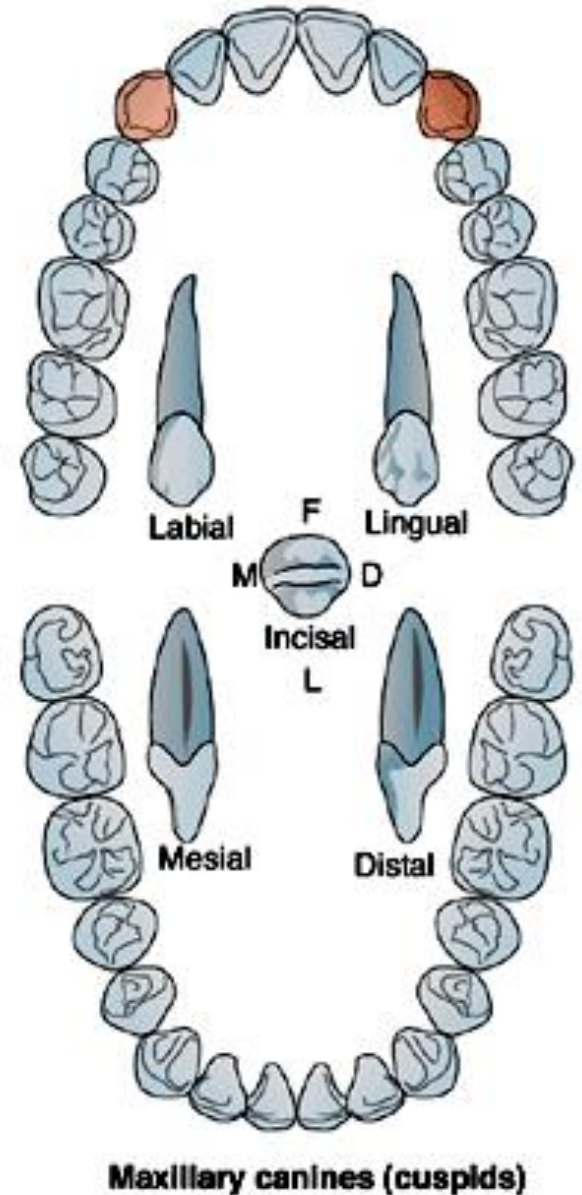


- There are **two maxillary** and **two mandibular** canines.
- They are called **corner stones** of the mouth.
- It has long root for good anchorage in the bone.
- The middle labial lobe is well developed forming cusp and labial ridge.
- The bone ridge over the labial surface of the root is called **canine eminence** (supports facial expression).

# The Permanent Maxillary Canine

## Chronology:

- Appearance of dental organ 6 m.i.u
- First evident of calcification 4 - 5 m
- Enamel completed 6 - 7 y
- Eruption 11-12 y
- Root completed 14-15 y



## No. of surfaces

It has five surfaces.



**Labial**



**Lingual**



**Mesial**



**Distal**

## No. of roots

It has one root.

**Incisal**



# Labial Aspect:

- Geom. shape: pentagonal or trapezoid.
- M. contact area: Junction of middle & incisal thirds.
- D. contact area: middle third.
- M outline: convex.
- D. outline: concave.
- Cusp tip: slightly mesially placed.
- Cerv. Line: convex - rootwise.
- Lab. anatomy: cervical ridge & labial ridge.
- Root: long ,conical with pointed apex which curved distally.



-The **distal slope** is longer than the **mesial slope**.

### ☆ Surface anatomy:

-The surface is convex both mesiodistally and inciso-cervically.

Elevations - Labial ridge.

- Cervical ridge.

- Cusp.

Depressions - Two developmental grooves.

### ☆ The root:

- It is long, slender, conical in shape with distal curvature of the apical 3<sup>rd</sup>.



# Lingual Aspect

- Crown narrower

## ☆Surface anatomy:

### The elevations: (well developed)

- **The cingulum:** large – pointed like a cusp
- **The marginal ridges (mesial and distal).**
- **The lingual ridge.**
- **Mesio- and disto-incisal ridges.**

### The depressions:

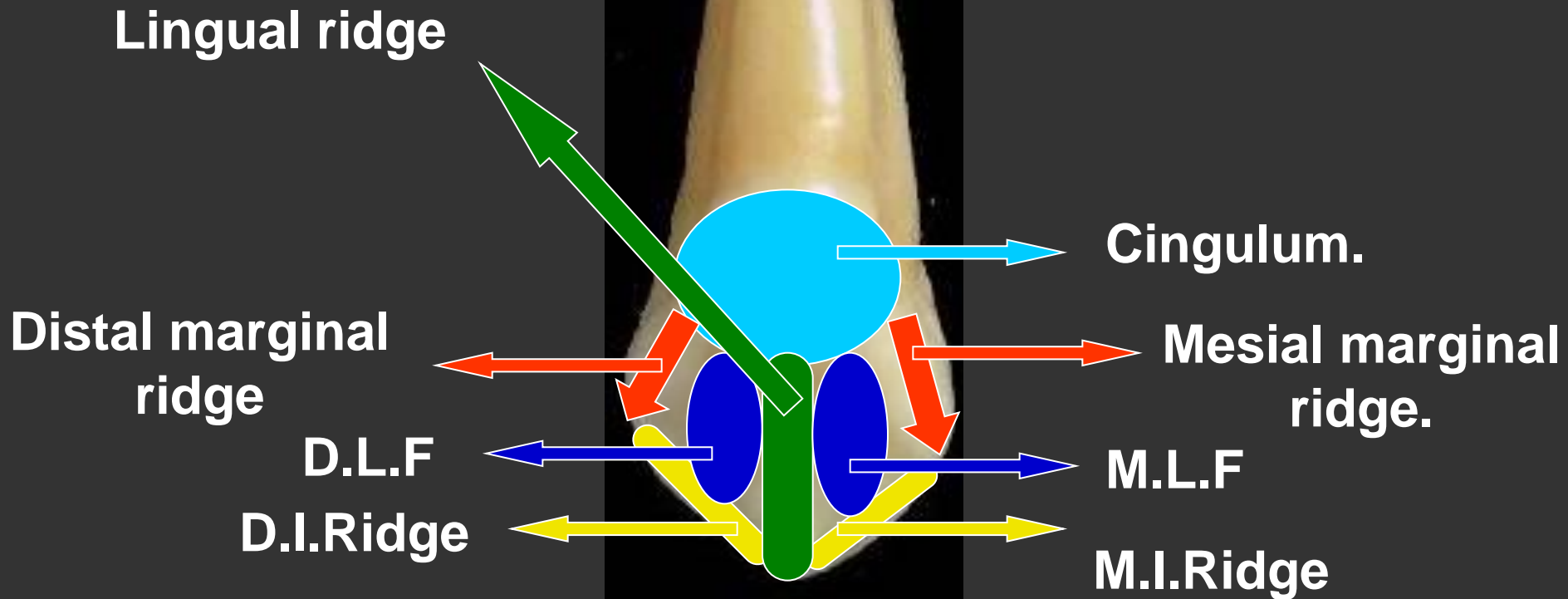
- **Two lingual fossae.**

The root: narrower lingually than  
Labially(lingual convergence).



Geom. Outline: petagonal or trapezoidal

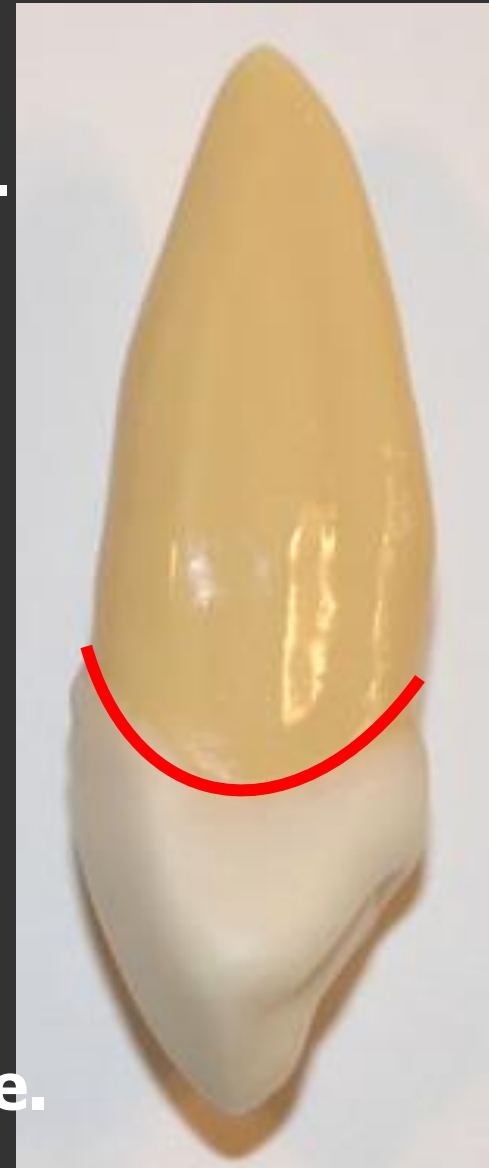
Enumerate the names of the following elevations and depressions?



## ☆ Geometrical shape

## Mesial Aspect

- **Wedge shape**, tip: incisally, base: cervically
- Tip of cusp on long axis or even lab. to it.
- The labial outline is **convex** with the greatest convexity at **cervical 1/3** (cervical ridge).
- The lingual outline is **convex** at **cervical 1/3** (cingulum).
- Then **straight or slightly concave** at the middle 1/3.
- Then slightly **convex** for the incisal ridge.



- **M. contact area:** at the junction of incisal & middle 1/3.
- **The cervical line:** curves towards the cusp.
- **Root:** is conical & blunt apex may be curved lab.
- **Broad with a shallow developmental depression.**



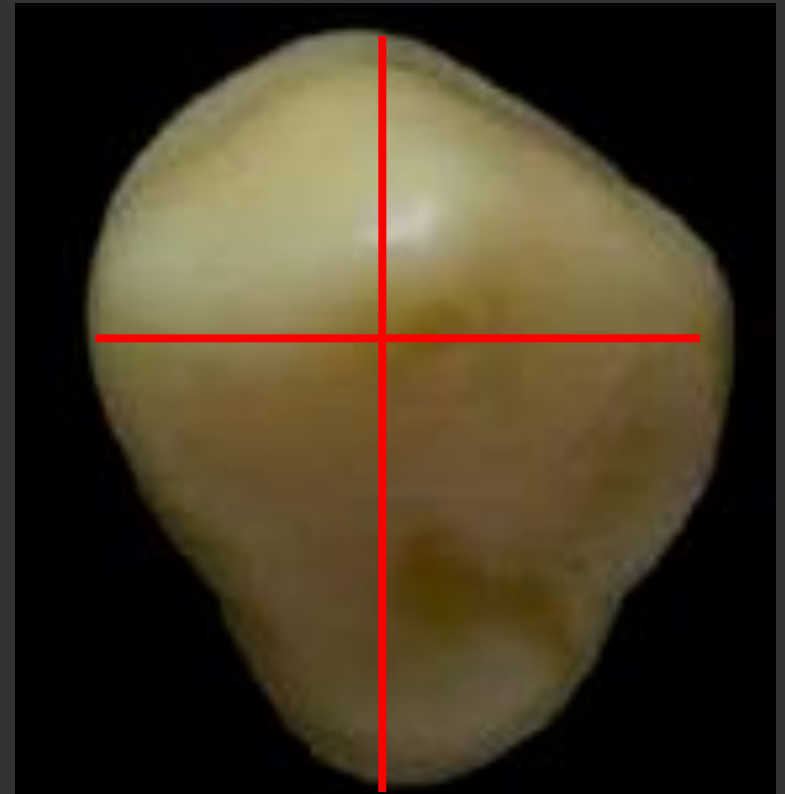
# Distal Aspect

- Similar to M aspect except:
- **Cerv. L:** less curved.
- **DMR:** heavier & more irregular.
- **Contact area:** more cervically & surface above it more concave.
- **Root dev. depression:** more prominent (help to anchor in the alveoli and prevents rotation).



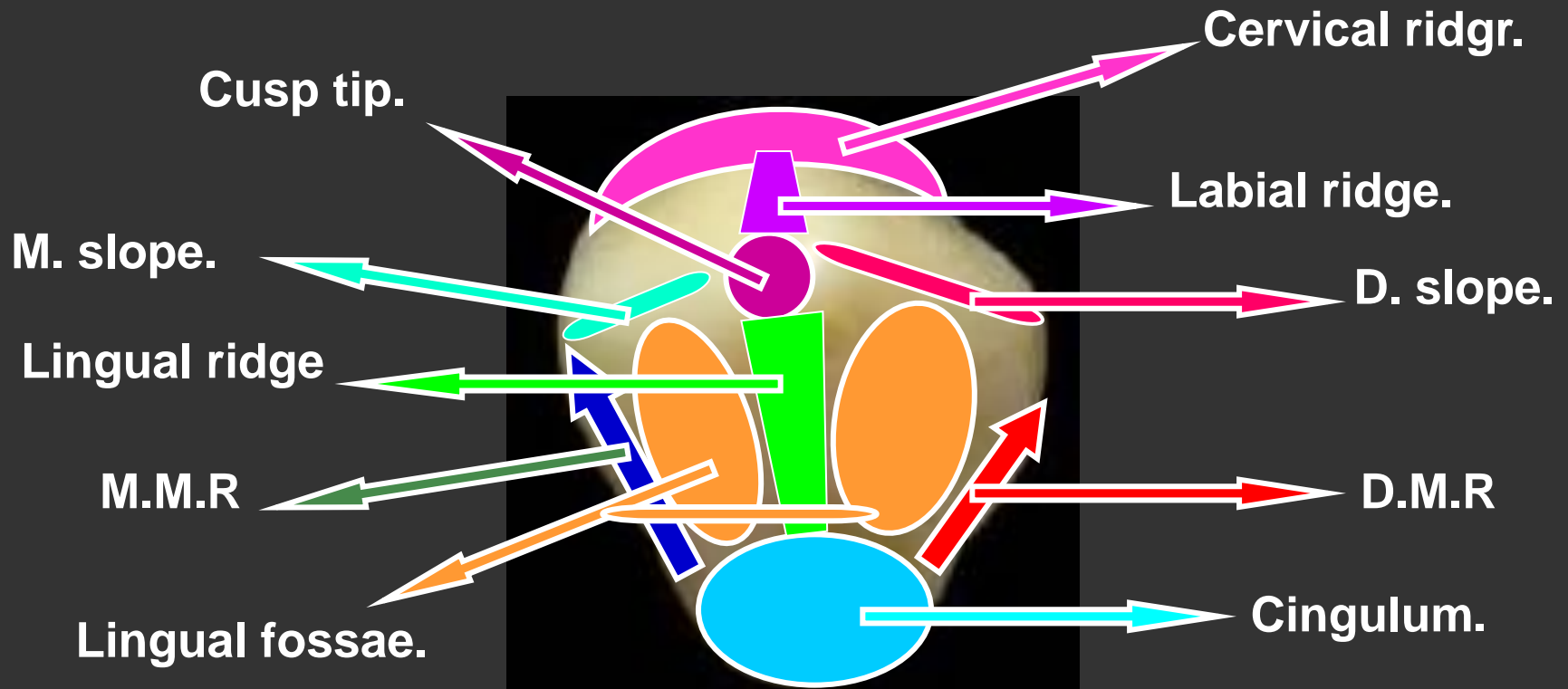
# Incisal Aspect

- Lab. ling. > M D
- Cusp tip directed towards lab. & mesial
- M cusp slop < D cusp slop
- The labial surface is convex
- All elevations and depressions can be seen from this aspect.



Diamond in shape

Enumerate the names of the following elevations and depressions?



# Pulp cavity

## ▶ Mesio-distal section

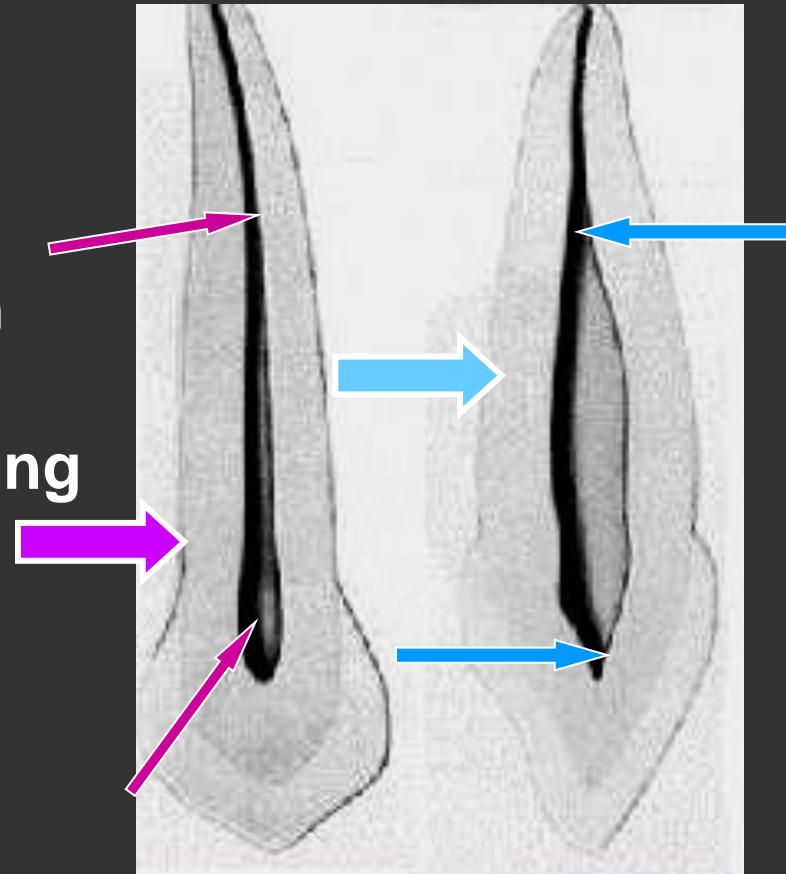
- Has a narrow pulp chamber with one pulp horn.
- The root canal is long and tapering down to the apical foramen.

## ▶ Labio-lingual section

- The pulp chamber is pointed incisally .
- The root canal start cervically wide till about the middle then narrows to the apical foramen.

## ▶ Cervical cross section

Oblong or oval, larger labioling. than mesiodistally.



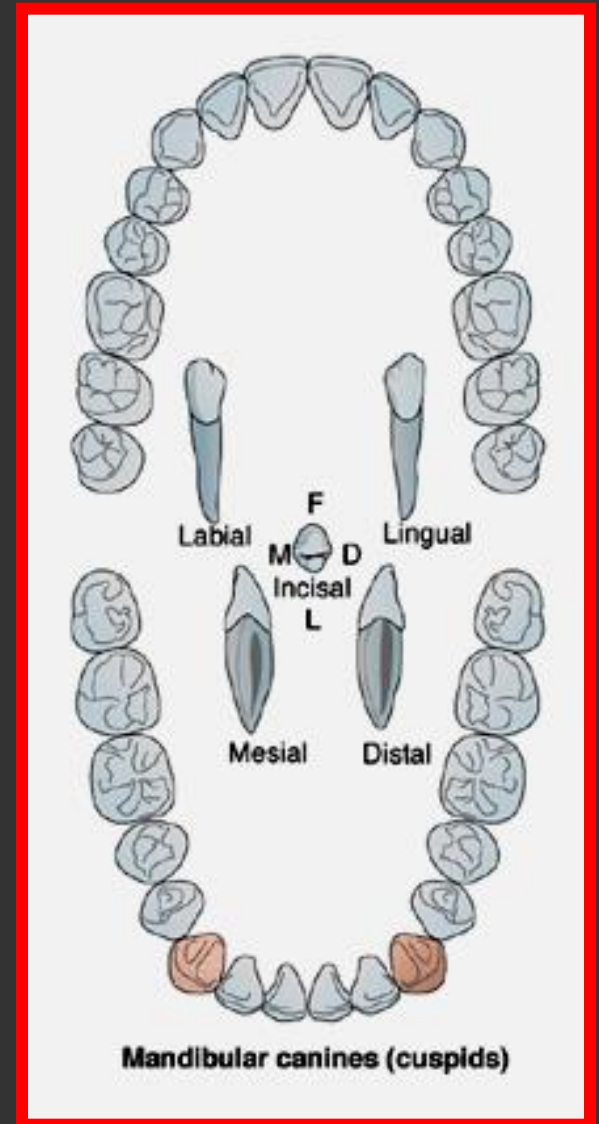
# The Mandibular Canine

**Dr Magdy ELabasiry, BDS, MS(Egypt), Ph. D.(Egypt.)**

# The Mandibular canine

## Chronology:

- Appearance of dental organ 6m.i.u
- First evident of calcification 4-5m
- Enamel completed 6-7y
- Eruption 9-10 y
- Root completed 12-13y



# The Mandibular Canine



**Labial**



**Lingual**



**Mesial**



**Distal**



**Incisal**

No. of roots

It has one root

# Labial aspect:

Differ from Max. canine :

- Crown narrower MD(about 0.5mm). **M**
- Crown longer by 1mm.
- M. outline: nearly straight.
- D. outline:slightly concave in the cervical 1/3 then convex,
- D. contact more cervical than M.
- Cerv.L: more symmetrically coloured.
- Root:convex and shorter by 1-2 mm and its apex is more sharply pointed.



# Lingual Aspect:

- The crown narrower, flatter, smoother, and regular.
- Lingual anat.: less dev.
- The ling. ridge is distinct only at cusp tip (only one shallow ling. fossa).
- The root is narrower.

**Note: the elevations of lower canine are not well developed as the upper one.**



# Mesial Aspect:

- Lab. & Ling. outline less curved.
- The crown mesially is longer than the upper one, but narrower labiolingually.
- Cusp ridge more slender & ling. inclined (may be centered).
- M developmental depression on root is more pronounced.
- Root may be bifurcated (lab. and ling. - 5%).



# Distal Aspect:

- DMR is more pronounced.
- Cerv. L. is less curved.
- D contact area more cerv.
- Dev. dep. on the root is more deep than that on the mesial.



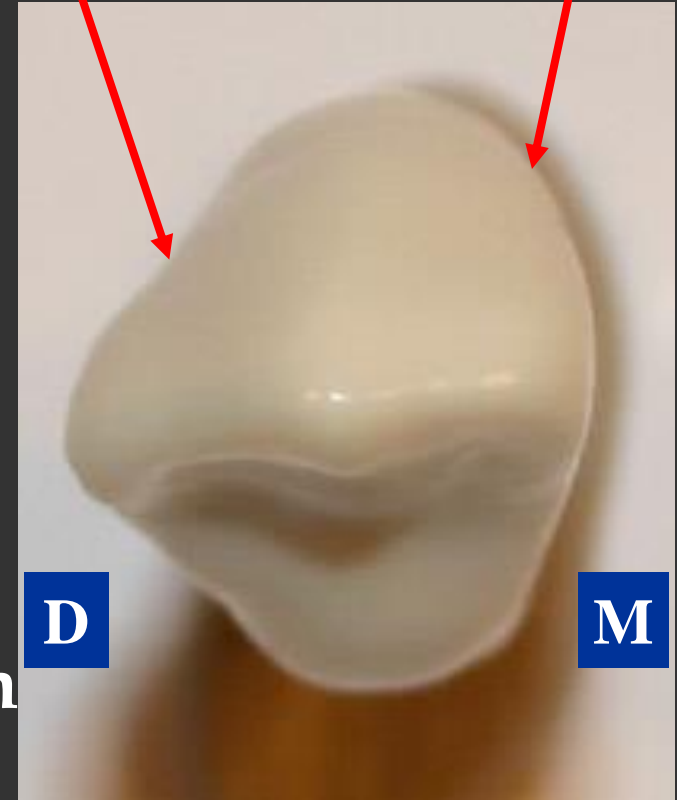
# Incisal Aspect:

(Often similar to that of upper canine)

- Mesial surface less curved
- Cusp tip is located mesioling.
- The D. cusp slop: slightly ling.(distolingual twist to match the dental arch)
- Cingulum shifted distally.

Flat or concave

Convex



# *Incisal aspect.*

## *Outline and surface anatomy*

The thickness is greater than the width.

The labial surface appeared convex and even more than the incisors

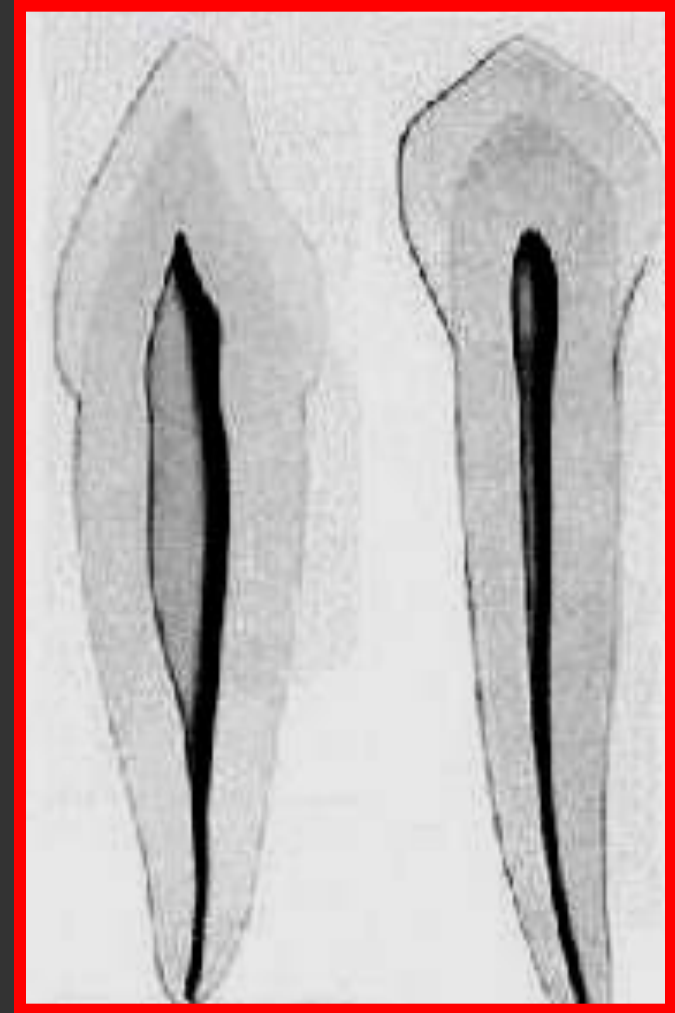
The cingulum forms a shorter arc than the one labially.

The elevations and depressions in the labial and lingual surfaces appeared in this aspect



# The pulp cavity:

- Similar to max. canine but less large.
- May have 1 or 2 root canals (lab. & ling.) that joined at apex or remain separate if root bifurcated



A sunset over the ocean. The sun is a large, bright yellow circle on the horizon, partially obscured by a thin layer of clouds. The sky is a mix of orange, red, and yellow. The water is dark blue with small ripples.

*Thank you*

**Any Question ?**