

# The Deciduous Dentition

Maxine Anne A. Remulla, DDM  
College of Dentistry  
University of the Philippines Manila

Primary teeth

Baby teeth 

**DECIDUOUS**

**S** decidere / deciduus  
"TO FALL OFF"

Temporary teeth 

Milk teeth 

# DECIDUOUS DENTITION

Calcification begins as early as **14 weeks IU**

Begins at **6 months old**, when the first mandibular incisor erupts

Complete at around **2.5 years old**

Lasts until **6 years old**, before the first permanent molar erupts

**20**

**deciduous teeth in total**

**10 each jaw**

4 incisors

2 canines

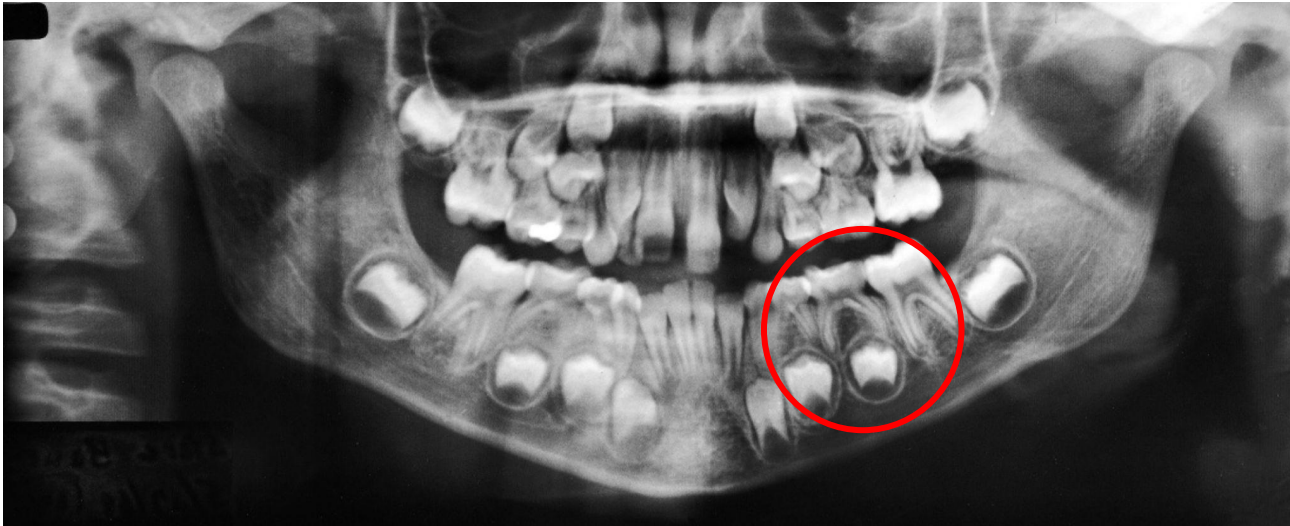
4 molars



**FORMULA:**  $I \frac{2}{2} \quad C \frac{1}{1} \quad M \frac{2}{2} = 10$  per side

# REMEMBER:

**No premolars in the deciduous dentition  
Deciduous molars are replaced by permanent premolars**



# TOOTH NUMBERING SYSTEM

**FDI** (Federation Dentaire Internationale)

Right mandibular 2nd molar:

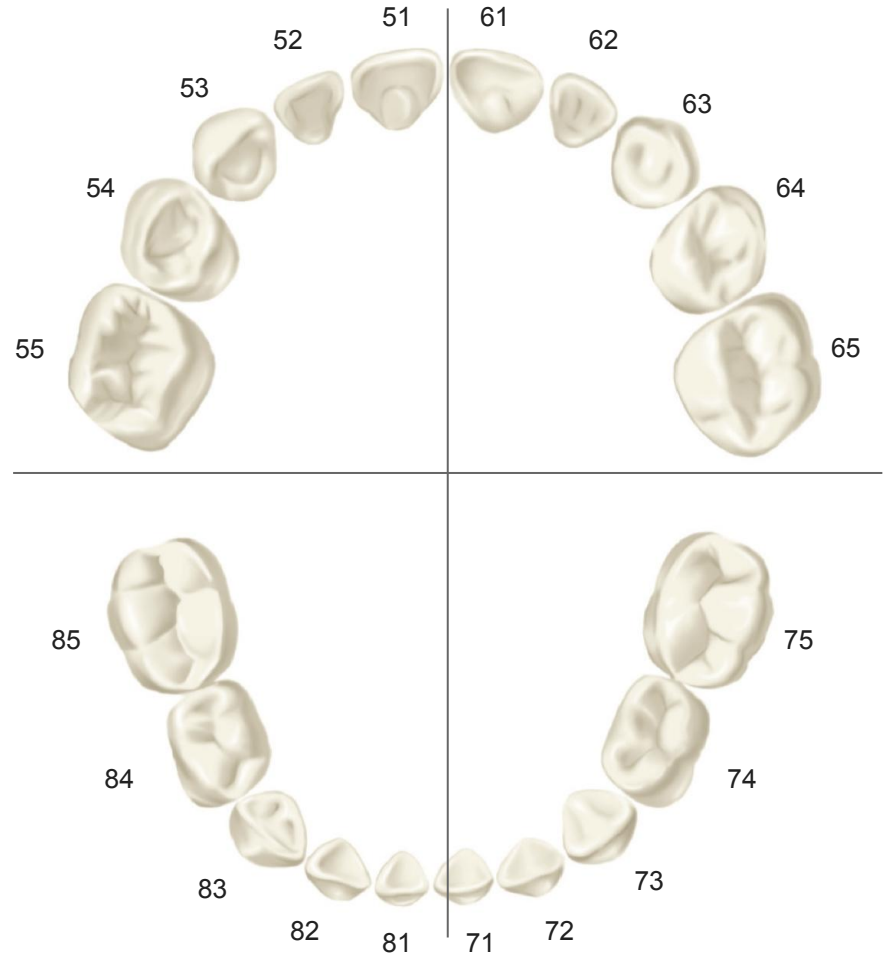
85

Right maxillary central incisor:

51

Left maxillary canine:

63



# TOOTH NUMBERING SYSTEM

**ADA** (American Dental Association)

Left maxillary 1st molar:

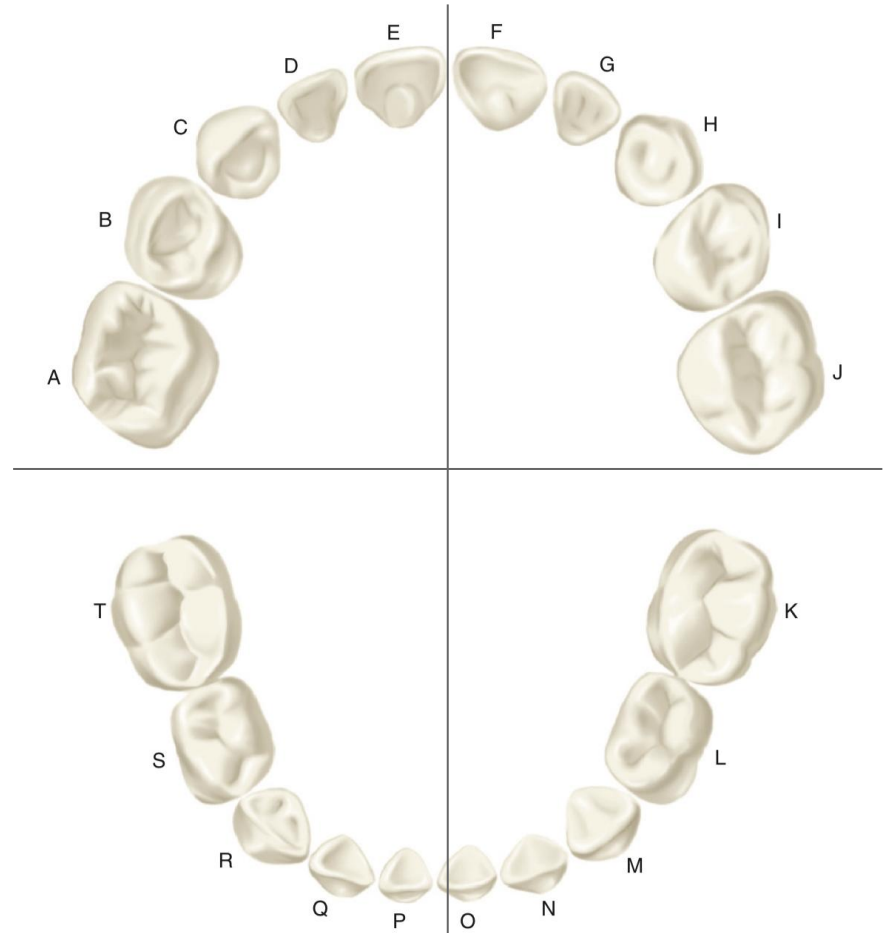
I

Right mandibular canine:

R

Right maxillary lateral incisor:

D



# TOOTH NUMBERING SYSTEM

## Palmer

Right maxillary canine:

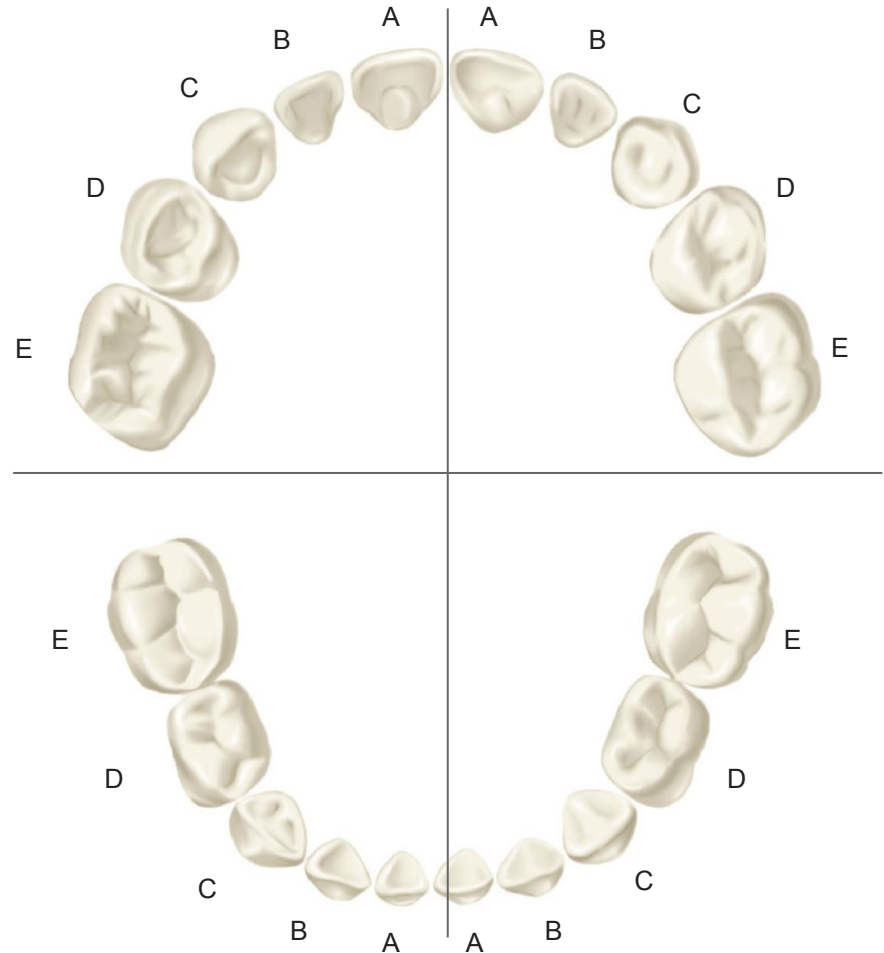
C |

Left mandibular 1st molar:

| D

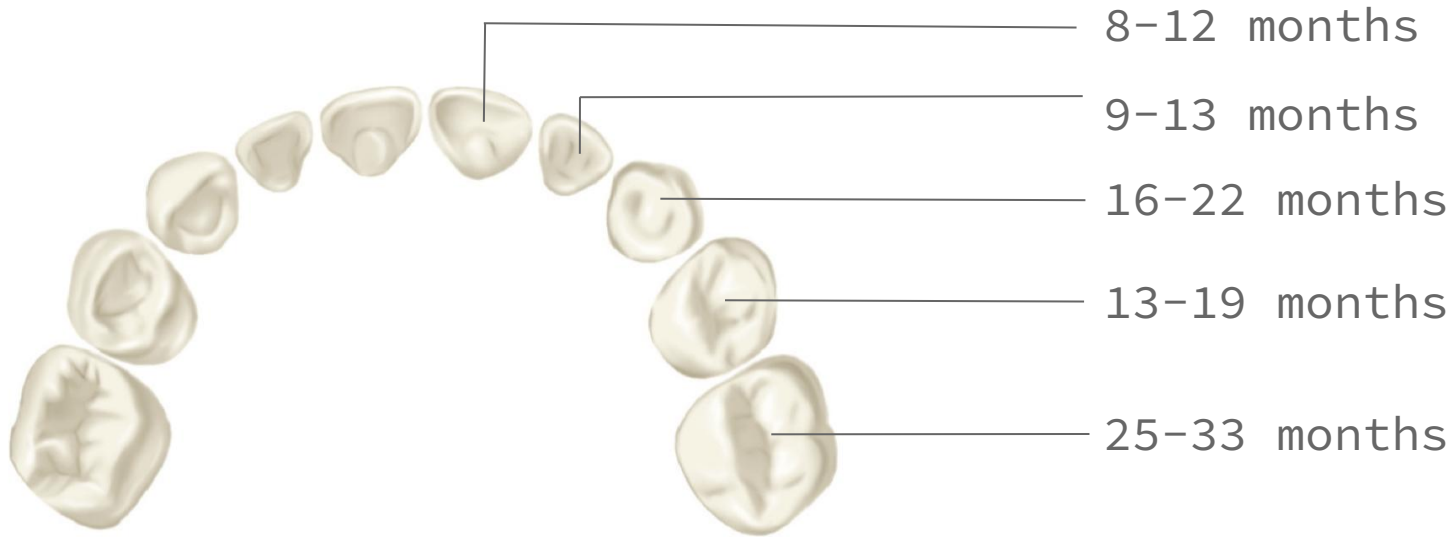
Left maxillary lateral incisor:

| B





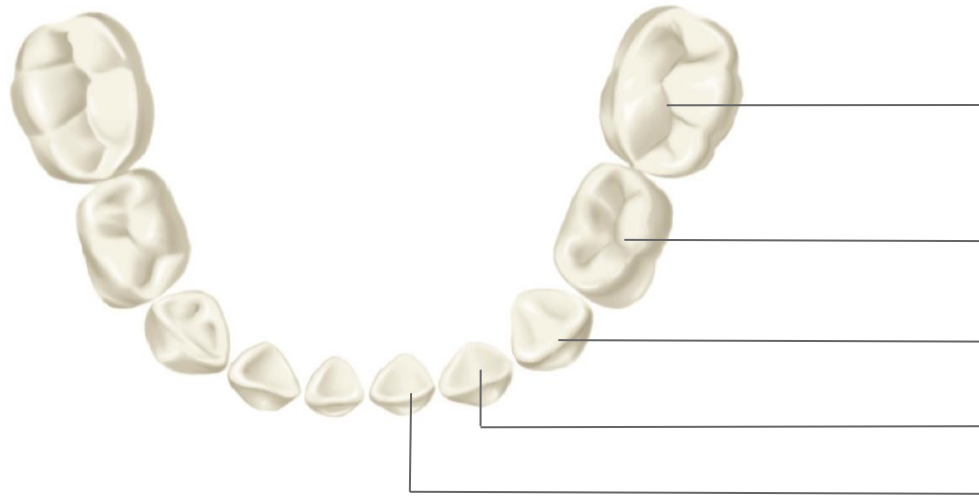
# ERUPTION SEQUENCE



Maxillary

**A-B-D-C-E**

# ERUPTION SEQUENCE



23-31 months

14-18 months

17-23 months

10-16 months

6-10 months

Mandibular

**A-B-D-C-E**

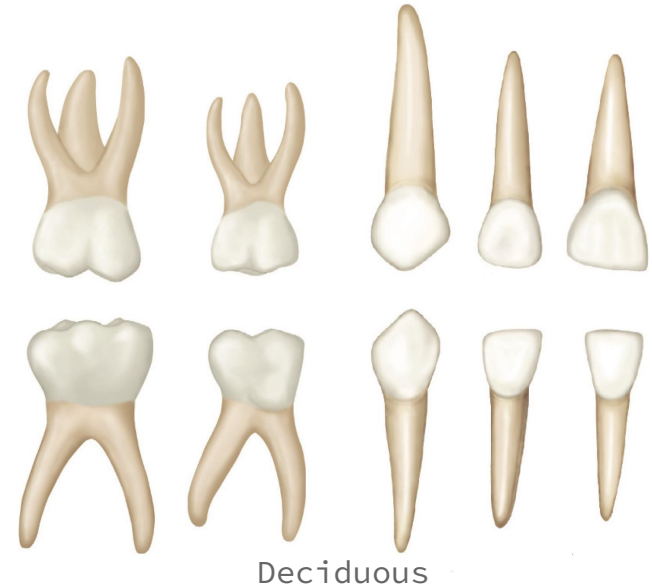
**A****B****D****C****E**

| TOOTH                      | AGE OF ERUPTION |
|----------------------------|-----------------|
| Mandibular central incisor | 6-10 months     |
| Maxillary central incisor  | 8-12 months     |
| Maxillary lateral incisor  | 9-13 months     |
| Mandibular lateral incisor | 10-16 months    |
| Maxillary first molar      | 13-19 months    |
| Mandibular first molar     | 14-18 months    |
| Maxillary canine           | 16-22 months    |
| Mandibular canine          | 17-23 months    |
| Mandibular second molar    | 23-31 months    |
| Maxillary second molar     | 25-33 months    |

**CHARACTERISTIC  
S OF DECIDUOUS  
TEETH**

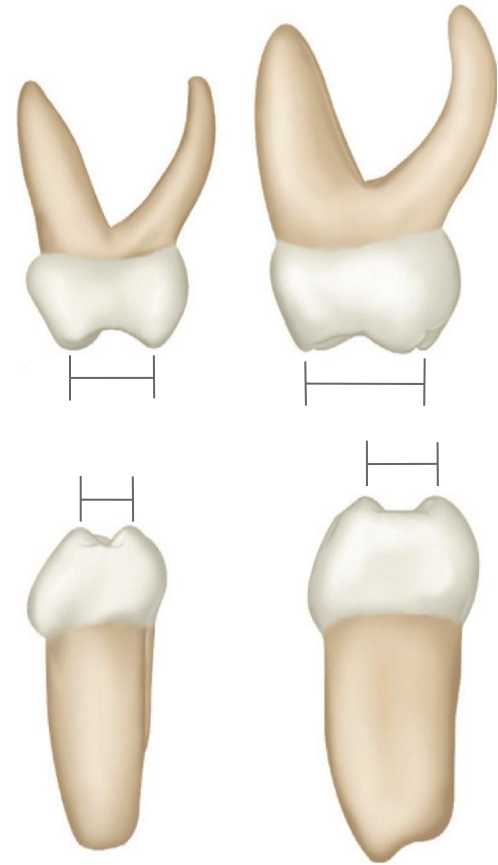
# CROWN

- **Short and wide**
- **Constricted at the cervical**
- Narrow occlusal table
- Thinner enamel and dentin layers
- Enamel rods in the cervical portion directed occlusally
- Lighter in color



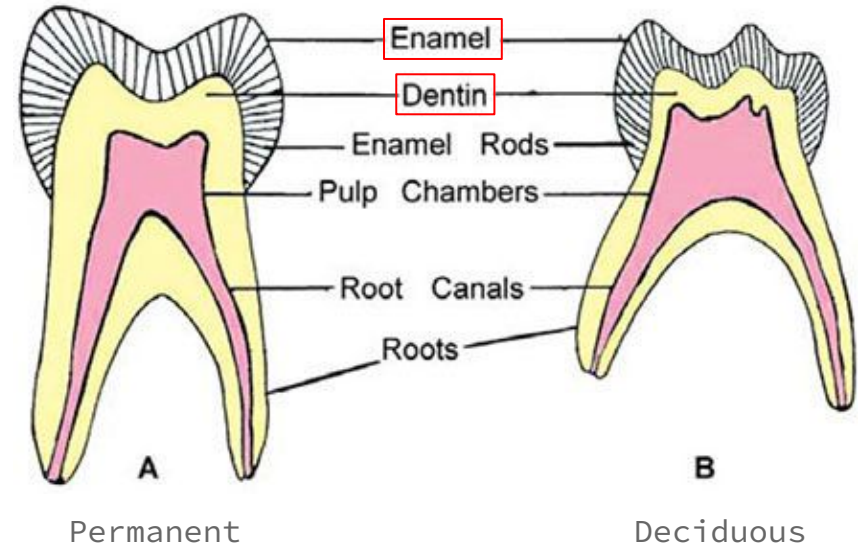
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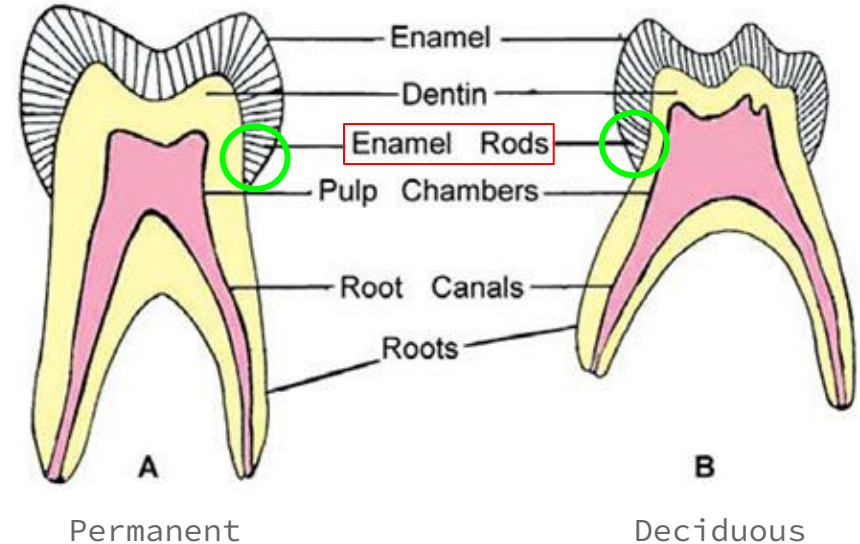
# CROWN

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# ROOT

- **Roots of anteriors are narrower mesiodistally**
- Posterior teeth have longer and more slender roots in relation to crown size
- Molar roots flare as they approach the apex



Deciduous



Permanent

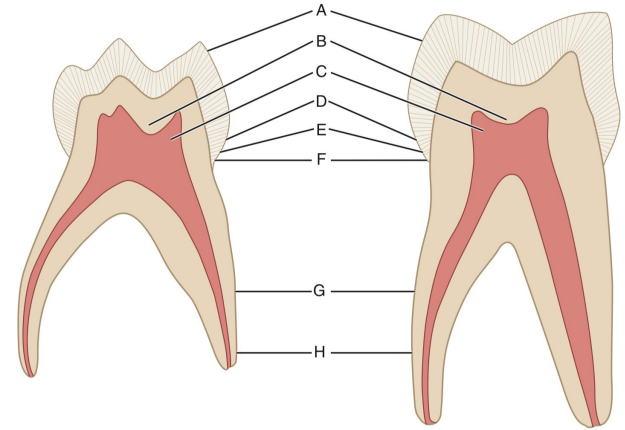
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# PULP

- Larger than in permanent teeth
- Great variation in size and location
- Form of the pulp follows the external anatomy
- Pulp horns are high and closer to the outer surface
- Pulp chamber is large and shallow
- Enamel thickness is thin with a consistent depth
- Dentin thickness between pulp chamber and enamel is limited



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**ANTERIOR  
DECIDUOUS  
TEETH**

# MAXILLARY CENTRAL INCISOR

- ★ Crown width is greater than crown height
- ★ Prominent cingulum
- ★ Straight incisal edge
- ★ No mamelons present



# MAXILLARY CENTRAL INCISOR

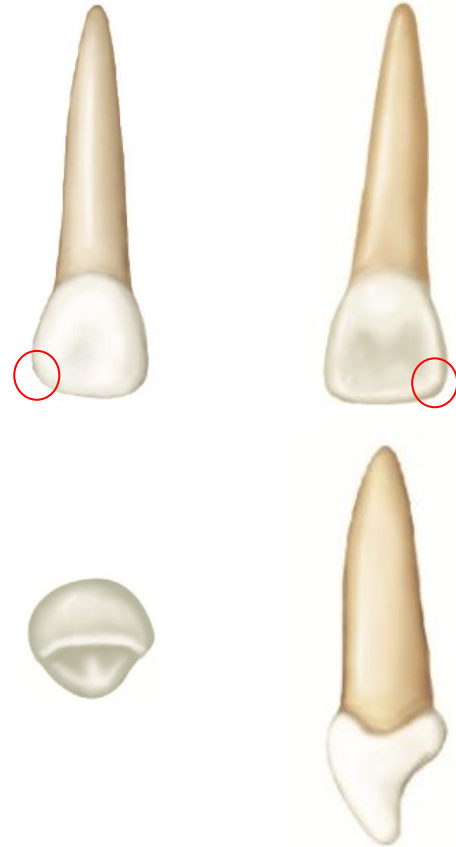
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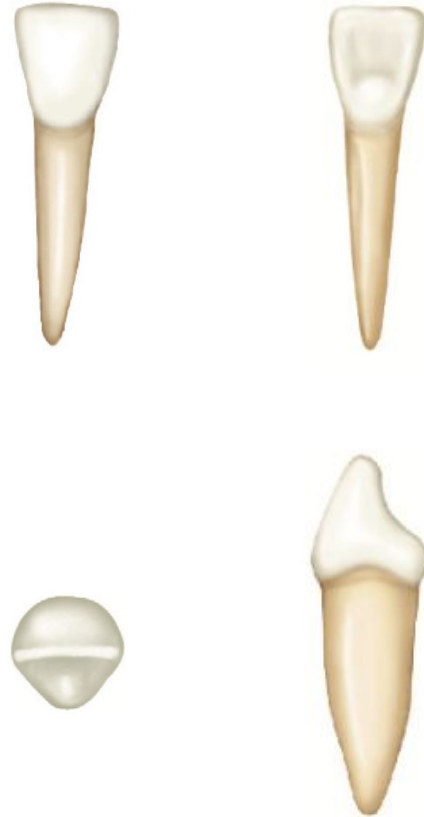
# MAXILLARY LATERAL INCISOR

- ★ Similar in form to central but smaller
- ★ Rounded distoincisor angle



# MANDIBULAR CENTRAL INCISOR

- ★ Symmetrically flat
- ★ Crown is about  $\frac{1}{3}$  the length of the root
- ★ Cingulum is present on the lingual



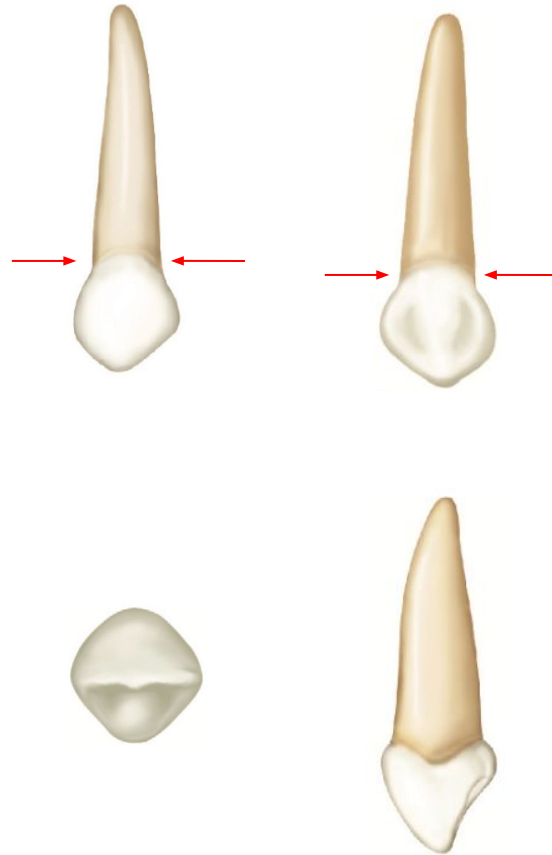
# MANDIBULAR LATERAL INCISOR

- ★ Similar in form to central
- ★ Usually longer
- ★ Rounded distoincisal angle



# MAXILLARY CANINE

- ★ Long root, more than twice the length of the crown
- ★ Sharp, well-developed cusp
- ★ Crown constricted at the cervical region



# MANDIBULAR CANINE

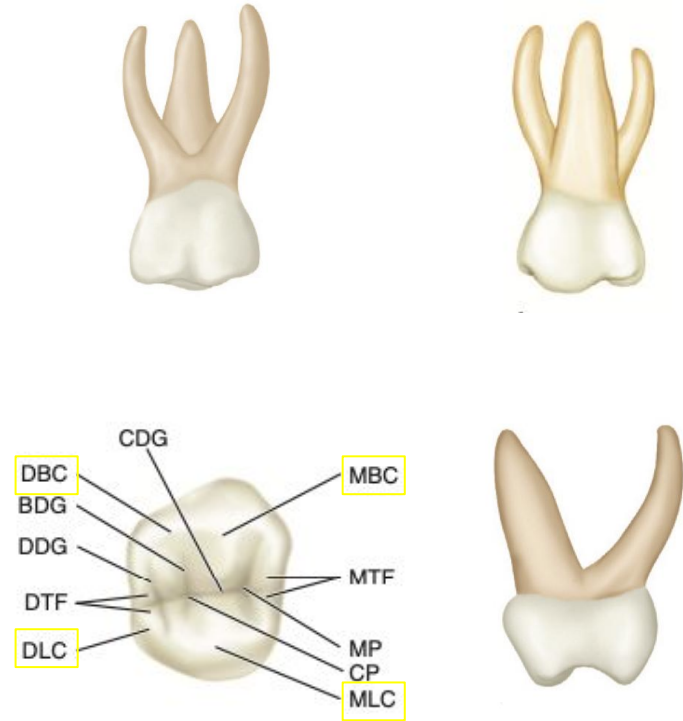
- ★ Similar in shape but smaller
- ★ Shorter crown and narrower labiolingually



**POSTERIOR  
DECIDUOUS  
TEETH**

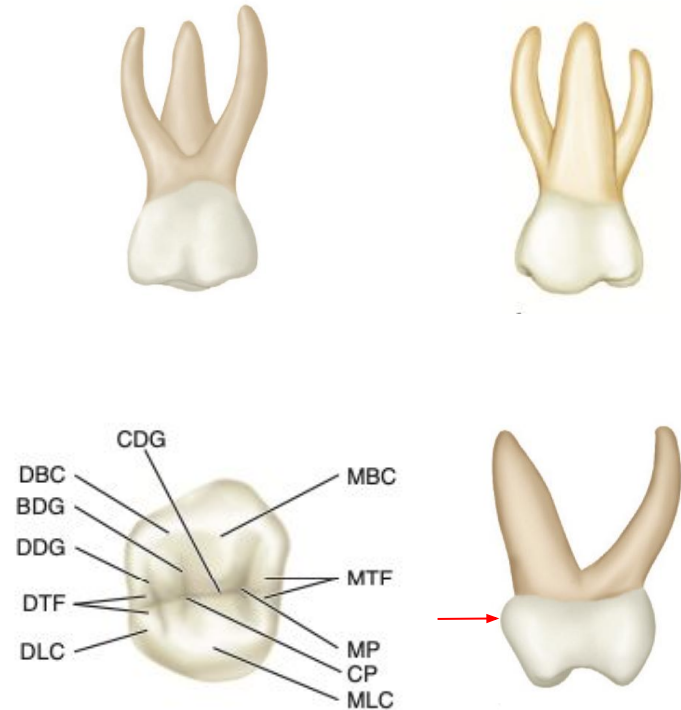
# MAXILLARY FIRST MOLAR

- ★ Unique appearance, but slightly similar to a permanent maxillary premolar (occlusal)
- ★ 4 cusps: mesiobuccal, distobuccal, mesiolingual, distolingual
- ★ 3 roots: mesiobuccal, distobuccal, palatal



# MAXILLARY FIRST MOLAR

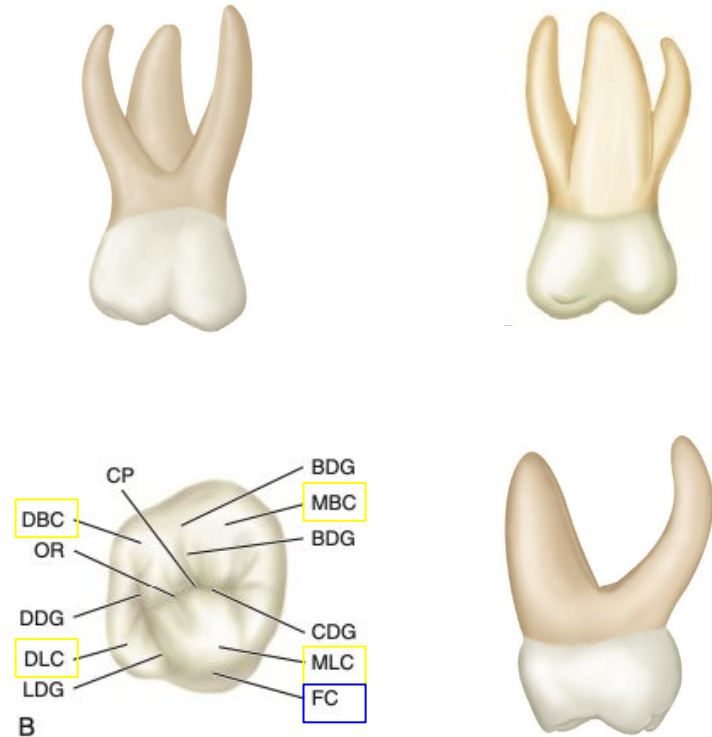
- ★ Prominent enamel cervical bulge on the buccal
- ★ Smallest of all deciduous molars (crown height and mesiodistal width)

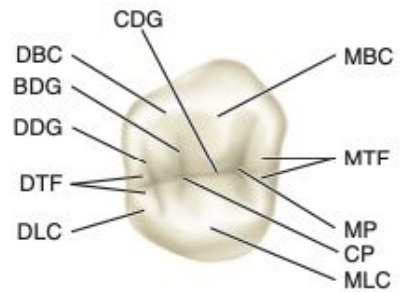




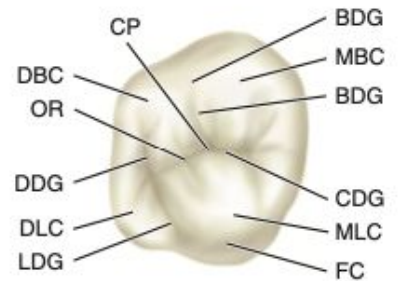
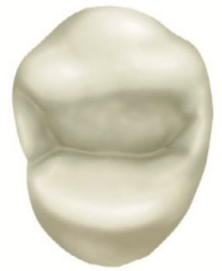
# MAXILLARY SECOND MOLAR

- ★ Resembles a permanent maxillary first molar
- ★ 3 roots: MB, DB, P
- ★ 4 well-developed cusps, with a minor 5th cusp (Cusp of Carabelli)
- ★ Rhomboidal outline





A

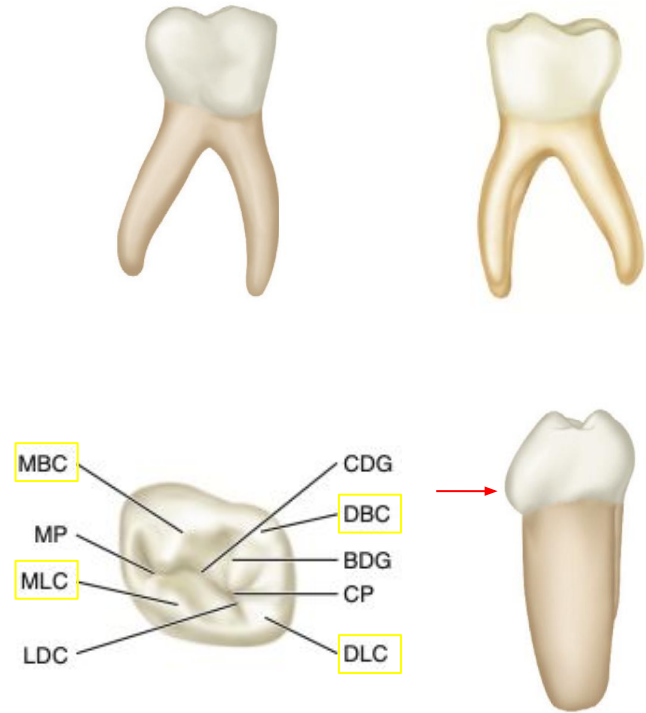


B



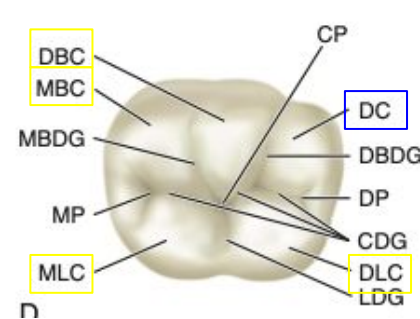
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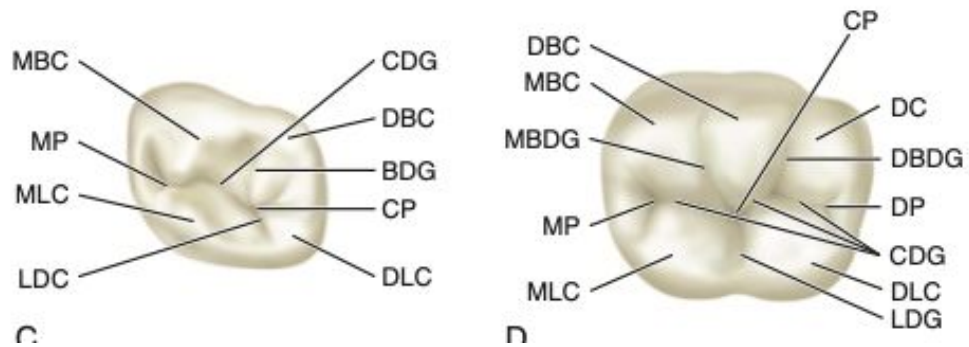
- ★ Unique appearance; does not resemble any other tooth  
(deciduous/permanent)
- ★ 4 cusps: MB, DB, ML, DL
- ★ 2 roots: mesial, distal
- ★ Prominent cervical bulge on buccal



# MANDIBULAR SECOND MOLAR

- ★ Resembles the permanent mandibular first molar
- ★ 5 cusps: MB, DB, ML, DL, DISTAL
- ★ 2 roots: M, D
- ★ 3 buccal cusps almost similar in size





# MAJOR CONTRASTS BETWEEN DECIDUOUS AND PERMANENT TEETH

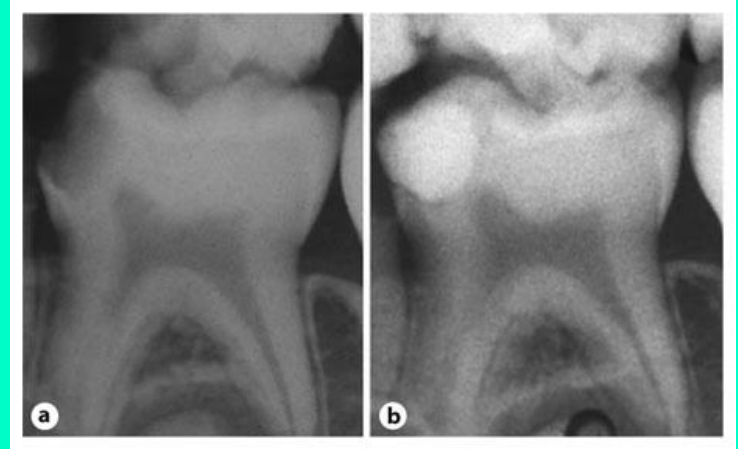
| FEATURE         | DECIDUOUS   | PERMANENT   |
|-----------------|---|---|
| <i>Number</i>   | 20  | 32  |
| <i>Formula</i>  | I=2, C=1, M=2   | I=2, C=1, P=2, M=3                                    |
| <i>Size</i>     | Smaller in all dimensions                             | Larger in all dimensions                              |
| <i>Color</i>    | Whiter, less pigmented<br>More translucent enamel     | Darker, more pigmented<br>Less translucent enamel     |
| <i>Shape</i>    | Cusps more pointed<br>Bulbous crowns                  | Cusps are blunt<br>Not so bulbous crowns              |
| <i>Cervical</i> | Enamel ends abruptly at the neck                      | Enamel ends gradually at the neck                     |
| <i>Roots</i>    | Shorter, narrower<br>More divergent away to the crown | Longer, broader<br>Less divergent away from the crown |

# MAJOR CONTRASTS BETWEEN DECIDUOUS AND PERMANENT TEETH

| FEATURE              | DECIDUOUS  | PERMANENT  |
|----------------------|--|--|
| <i>Pulp</i>          | Larger<br>High, long pulp horns  | Smaller<br>Lower, shorter pulp horns   |
| <i>Incisal edges</i> | No mamelons  | Mamelons may be present  |
| <i>Enamel</i>        | Less calcified<br>More permeable<br>Enamel rods near the cervical are directed <u>occlusally</u> | More calcified<br>Less permeable<br>Enamel rods near the cervical are directed <u>apically</u> |
| <i>Dentin</i>        | Thinner  | Thicker  |

# Why do we need to know the anatomy of deciduous teeth?

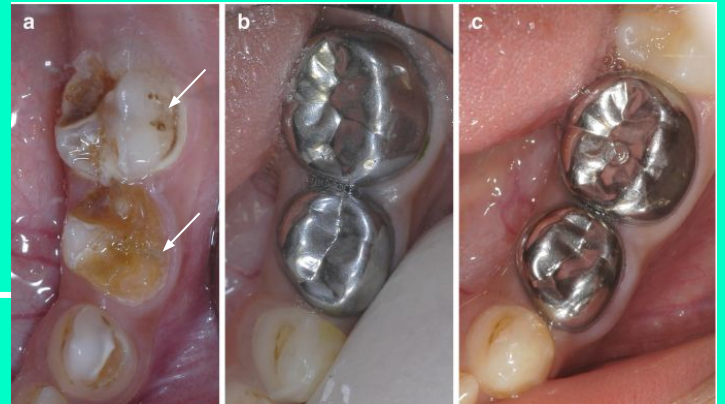
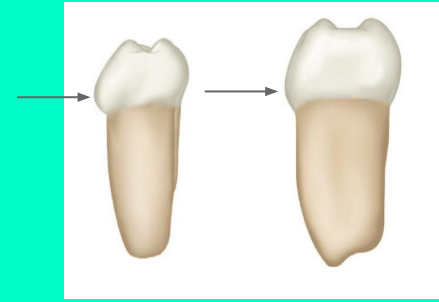
- ❖ Restoration of carious deciduous teeth





# Why do we need to know the anatomy of deciduous teeth?

- ❖ Restoration of carious deciduous teeth



# Why do we need to know the anatomy of deciduous teeth?

- ❖ Extraction of badly broken down deciduous teeth (especially molars)



# Why do we need to know the anatomy of deciduous teeth?

❖ Identification



# IMPORTANCE OF DECIDUOUS TEETH

- Proper growth and development of the dental arches
- Mastication
- Space maintenance

