



Dental Anatomy

Lecture 2

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TOOTH NUMBERING SYSTEMS

The teeth numbering system is designed to develop the standard reference principle to each particular tooth. Three different methods have been employed throughout the teeth numbering history, and only two of them get commonly used nowadays.

1. Universal notation system

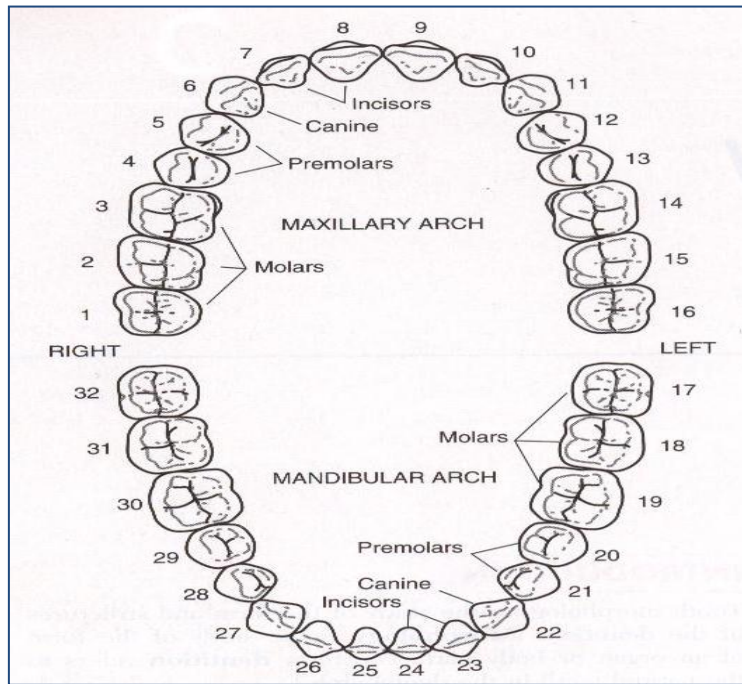
A. Permanent teeth:

Maxillary																	
Right	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Left
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	
Mandibular																	

#11: Permanent maxillary left canine.

#29: Permanent mandibular right second premolar.

#8: Permanent maxillary right central incisor.



B. Deciduous teeth

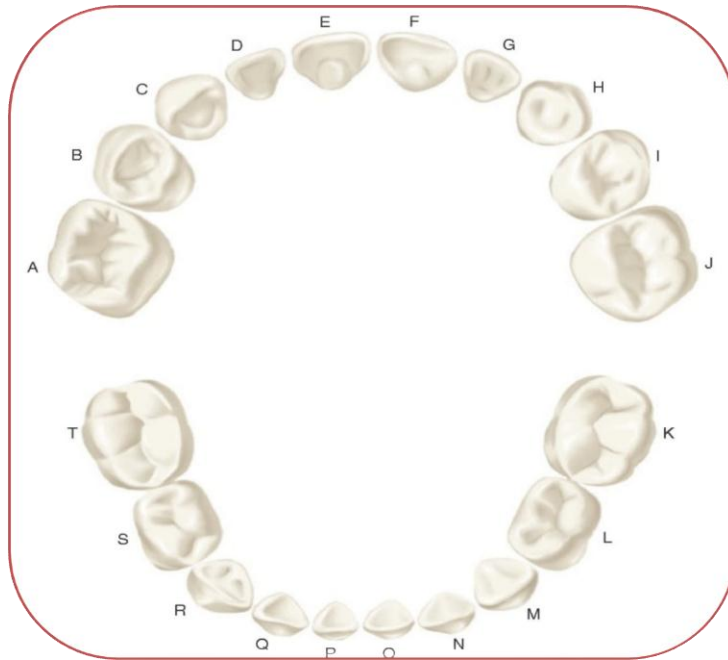


Examples:

#B: Deciduous maxillary right first molar.

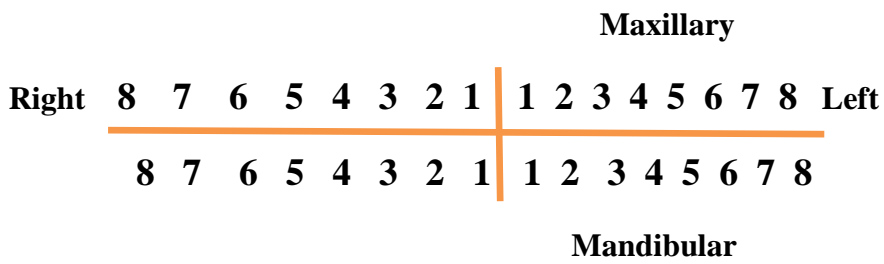
#O: Deciduous mandibular left central incisor.

#D: Deciduous maxillary right lateral incisor.



2.Palmer notation system

A.Permanent teeth:



Examples:

6 Permanent maxillary right
first molar.

3 Permanent mandibular
left canine.

8 Permanent maxillary right
third molar.

B.Deciduous teeth

Right	E	D	C	B	A	A	B	C	D	E	Left
	E	D	C	B	A	A	B	C	D	E	

Examples:

D Deciduous maxillary right
first molar.

C Deciduous mandibular
left canine.

E Deciduous maxillary right
second molar.

3.FDI (Federation Dentaire Internationale)

A.Permanent teeth

Upper Right							Upper Left								
18	17	16	15	14	13	12	11	21	22	23	24	25	26	27	28
48	47	46	45	44	43	42	41	31	32	33	34	35	36	37	38
Lower Right							Lower Left								

B.Deciduous teeth

Upper Right					Upper Left				
55	54	53	52	51	61	62	63	64	65
85	84	83	82	81	71	72	73	74	75
Lower Right					Lower Left				

Crown and Roots

Each tooth has a crown and root. The crown is covered with enamel. The root is covered with cementum and they join at the cemento-enamel junction (CEJ) or cervical line. The four tooth tissues are ***enamel, dentin, cementum and pulp***. The first three are known as hard tissues, the last as soft tissues. The major bulk of the tooth is dentin.

Dental pulp: is the soft tissue of the tooth and present in the pulp chamber and pulp canal.

Pulp chamber: is the part of dental pulp in the crown .

Pulp canal: is the part of dental pulp in the root.

The pulp chamber is continuous with the pulp canal and collectively called as the "pulp cavity".

Anatomical crown: is the portion of the tooth that covered by enamel.

Clinical crown: is the portion of the tooth which is visible in the mouth.

In a healthy person the anatomical crown is larger than the clinical crown.

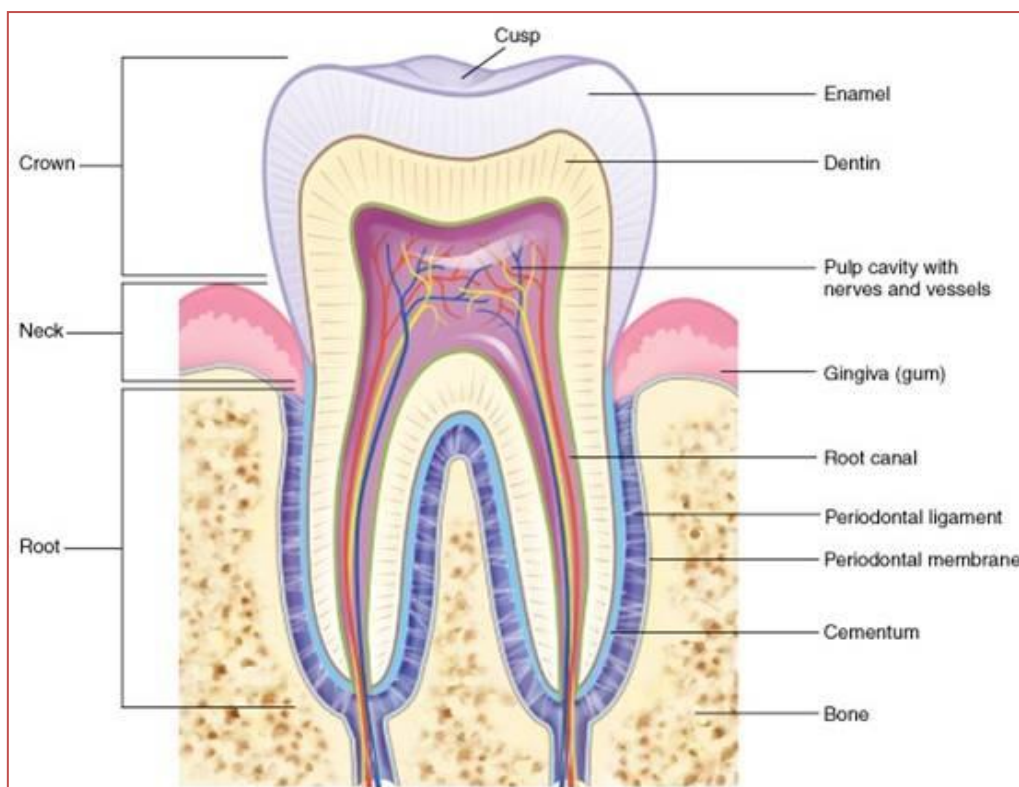


Figure (1):Crown and root.

The number of roots:

1. Single root: in all anterior teeth, mandibular premolars and maxillary second premolar.
2. Two roots with bifurcation: in mandibular molars and maxillary first premolar. Division of the tooth root is known as furcation.
3. Three roots with trifurcation: in maxillary molars.

Surfaces and ridges:

The crowns of incisors and canines have four surfaces and ridge, while the crowns of premolars and molars have five surfaces.

The surfaces are:

1. Labial surface: is the surface which is toward the lip in incisors and canines (in anterior teeth).

2. Buccal surface: is the surface which is toward the cheek in premolars and molars (posterior teeth).

The labial and buccal surfaces could be termed as the "**facial surfaces**".

3. Lingual surface: is the surface which is facing the tongue (all teeth).

4. Occlusal surface: is the surface of the posterior teeth coming in contact with the teeth in the opposite jaw during closing the mouth.

In anterior teeth, this surface is called "**incisal ridge**".

5. Proximal surface: is the surface of the tooth facing toward adjacent teeth in the same dental arch.

a. Mesial surface: is the surface which is facing toward the median line.

b. Distal surface: is the surface which is facing away from the median line.

All teeth have their mesial surfaces touching the distal surfaces of the adjacent tooth except the maxillary and mandibular central incisor (both permanent and deciduous). The area of the mesial and distal surface that touch its neighbor in the arch is called the "**contact area**".

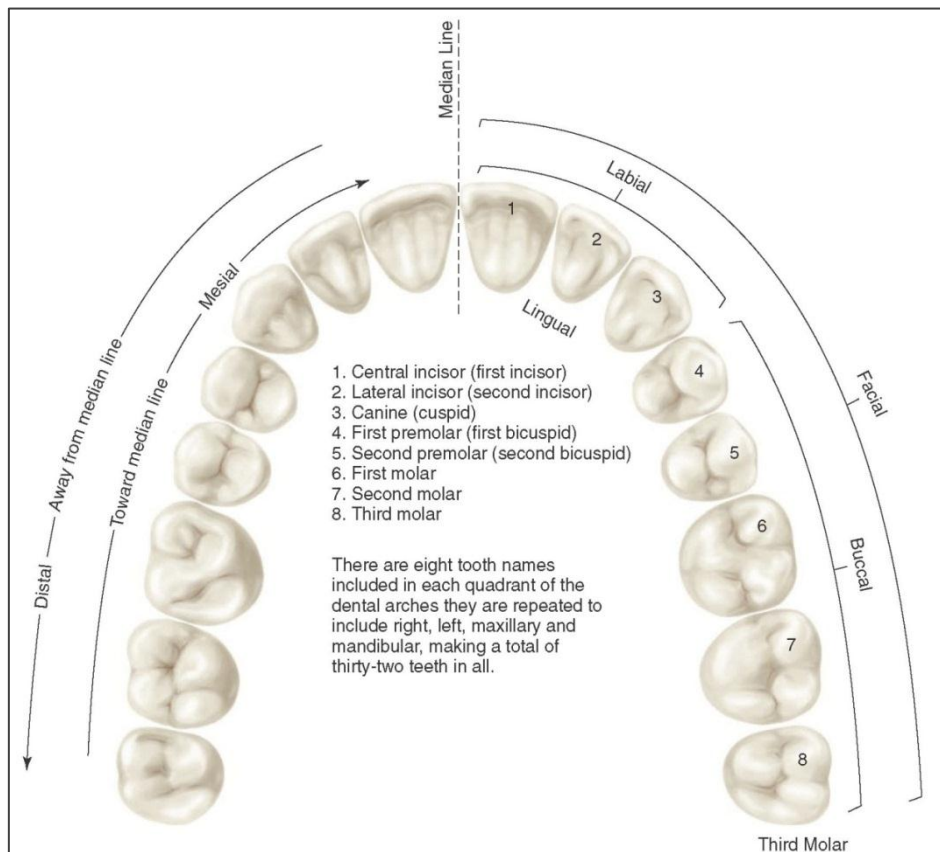


Figure (2): Application of nomenclature.

Division of the crown into thirds:

For description, the crown and the root are divided into thirds according to the position of the surface.

Line angle: it is formed by the junction of two surfaces and gets its name from these surfaces. Example: mesio-labial line angle.

Point angle: it is formed by junction of three surfaces and get its name from these surfaces. Example: mesiolinguo-incisal point angle.

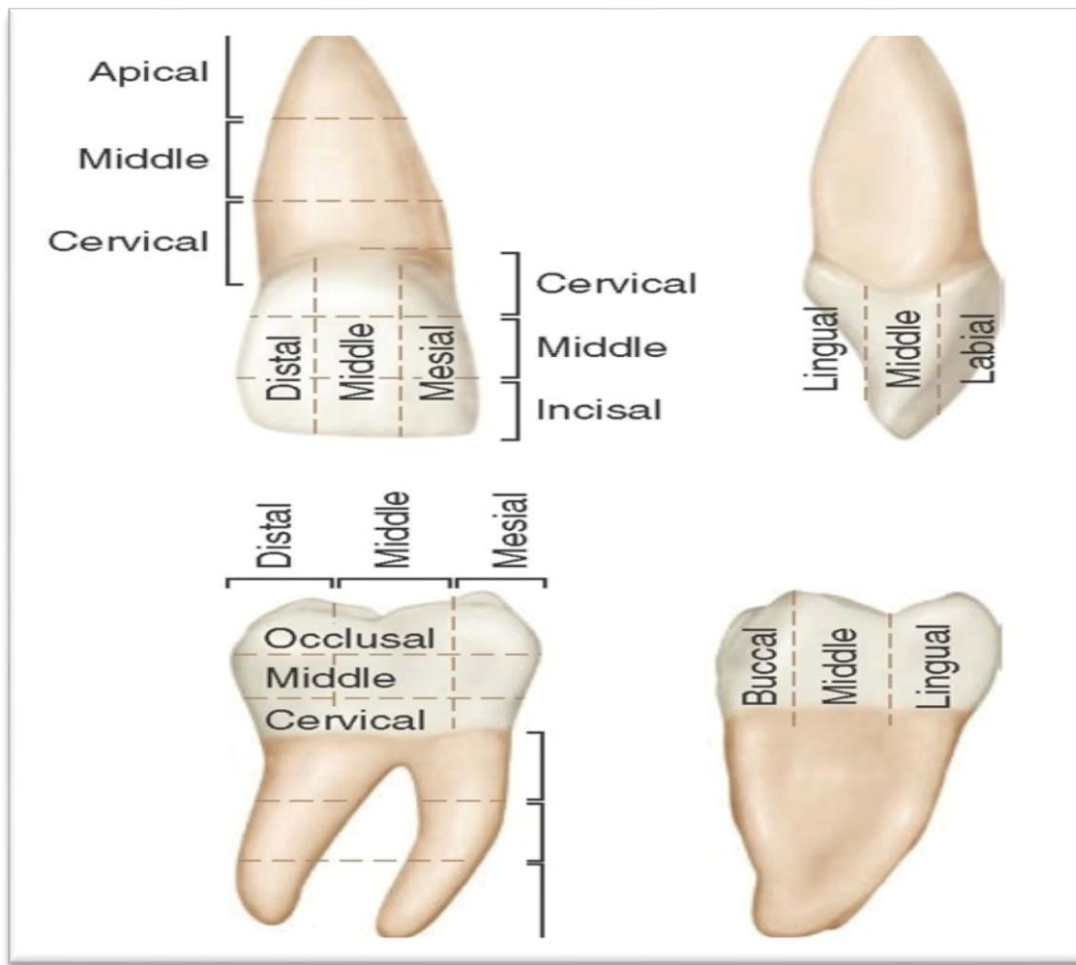


Figure (3): Divisions of crown and root of the tooth.