



Dental Anatomy

Lecture(2)

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:

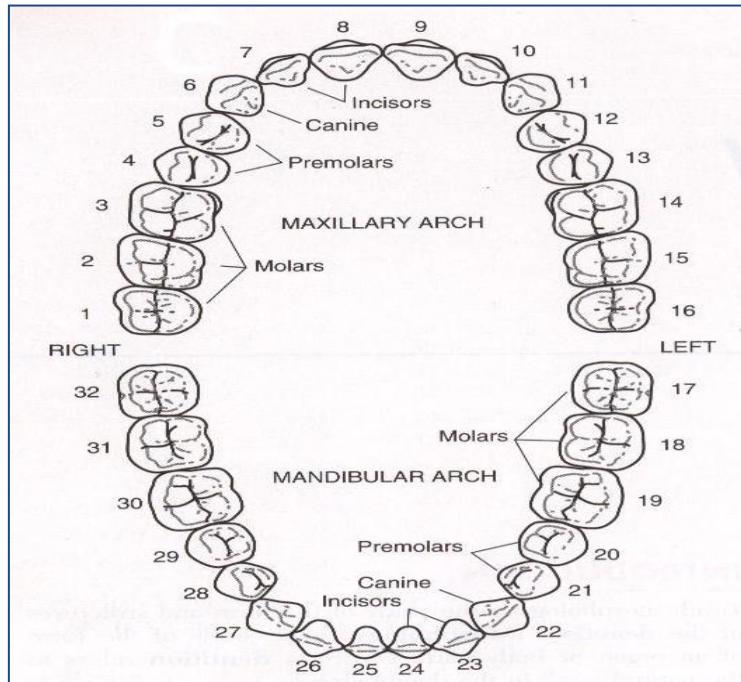
	Maxillary															Left	
Right	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Left
	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	

	Mandibular															Left	
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	

#11: Permanent maxillary left canine.

#29: Permanent mandibular right second premolar.

#8: Permanent maxillary right central incisor.



B.Deciduous teeth

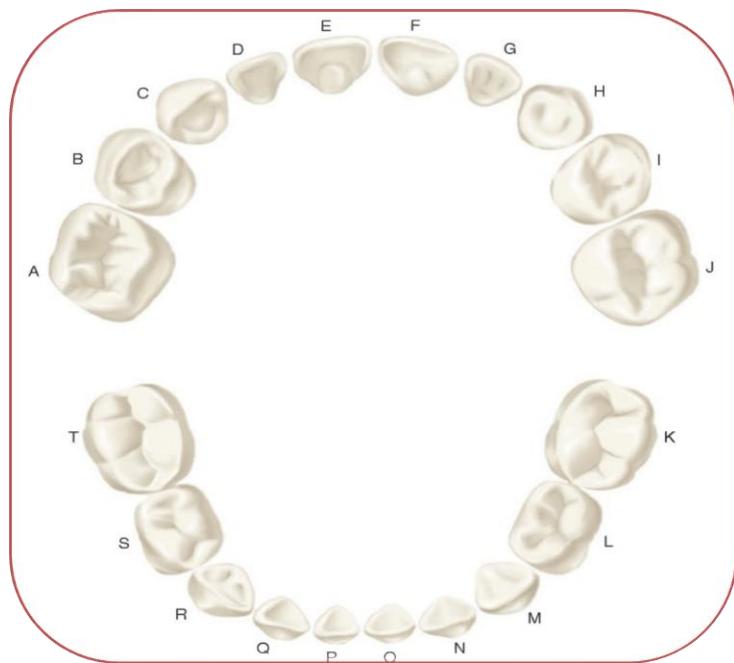
Right	A B C D E F G H I J	Left
	T S R Q P O N M L K	

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:

Maxillary																					
Right	8	7	6	5	4	3	2	1	1 2 3 4 5 6 7 8												Left
	8	7	6	5	4	3	2	1	1 2 3 4 5 6 7 8												

Mandibular

Examples:

6 Permanent maxillary right

first molar.

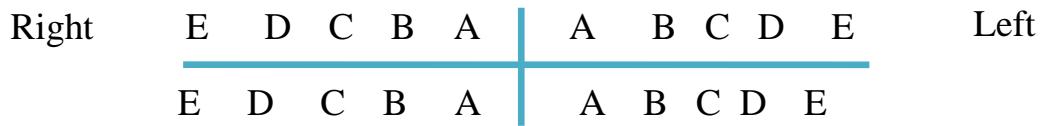
3 Permanent mandibular

left canine.

8 Permanent maxillary right

third molar.

B.Deciduous teeth



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 are 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.

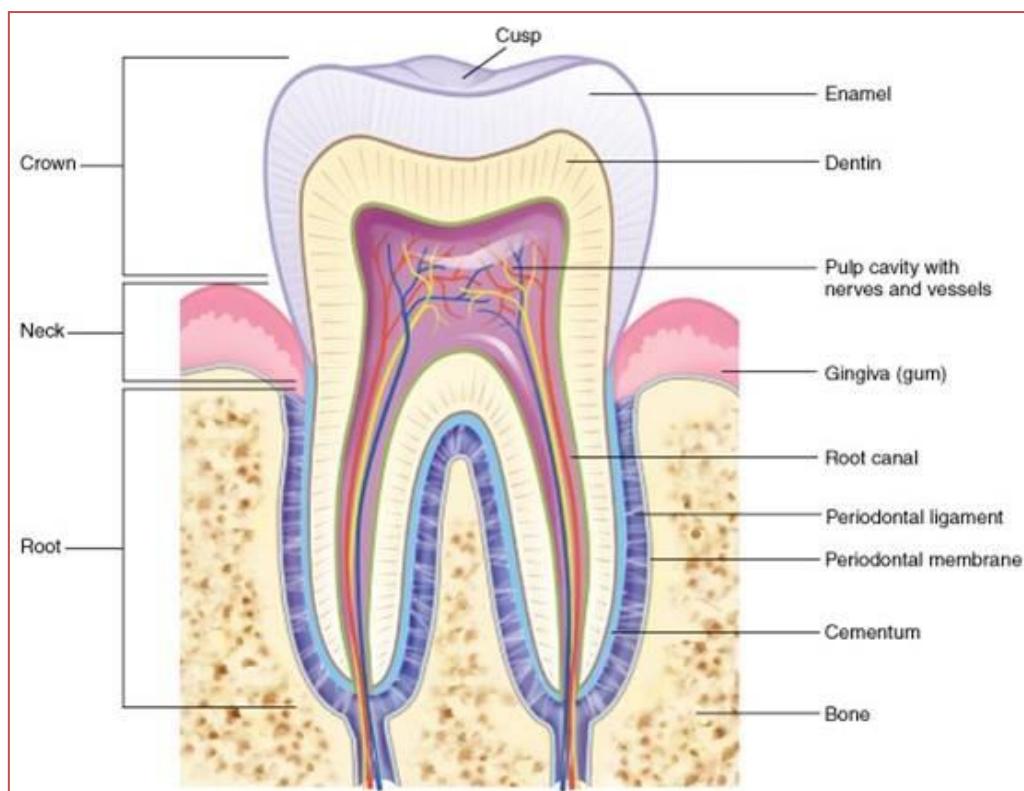


Figure (1):Crown and root.

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**".

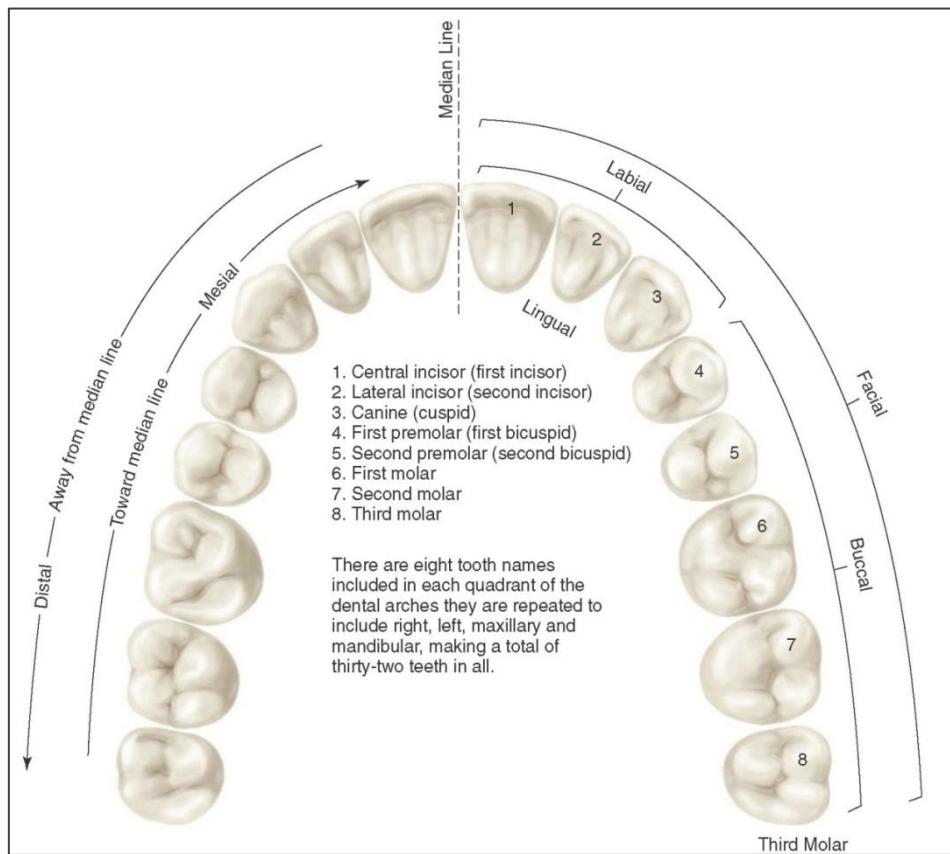


Figure (2): Application of nomenclature.

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 get 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.

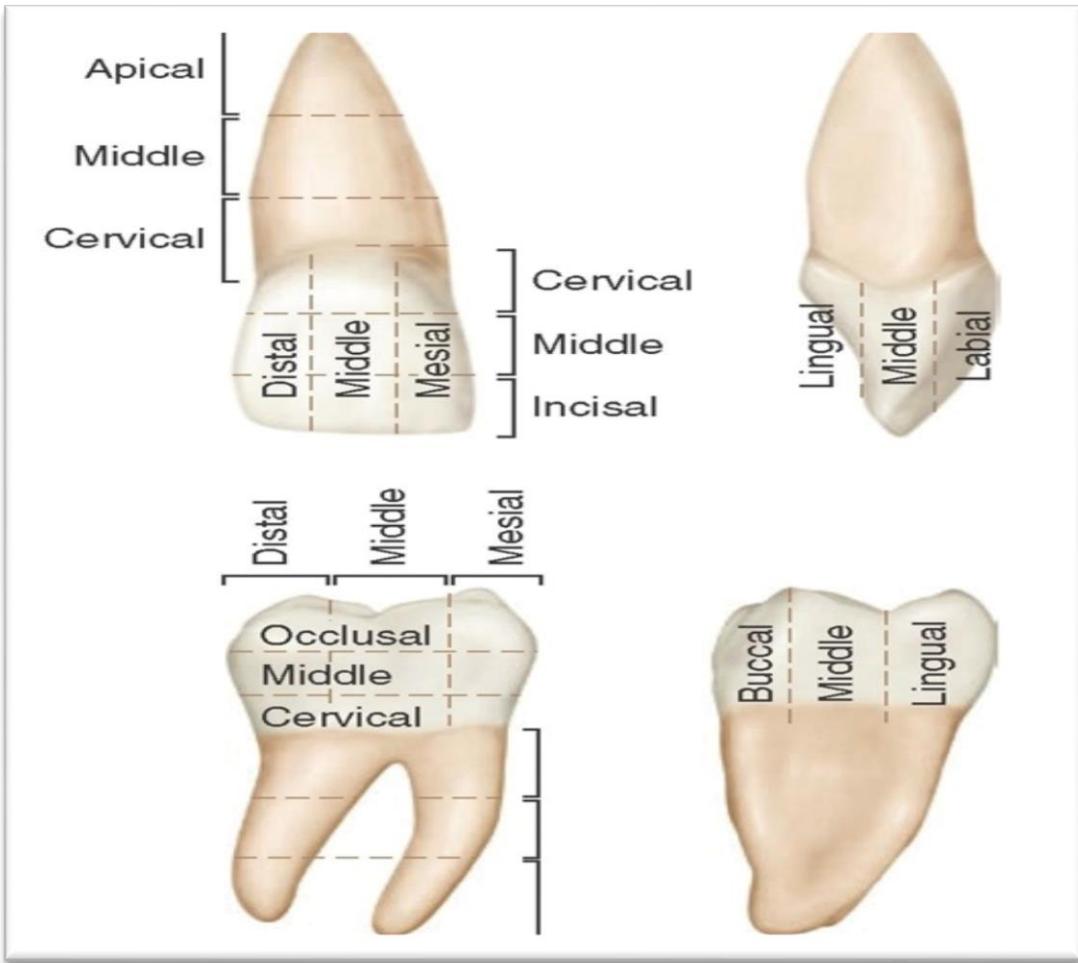


Figure (3):Divisions of crown and root of the tooth

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