



Introduction to Dentistry

Lecture 2: Dental Terminology

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Dental Terminology

Dental terminology involves the study of words and terms related specifically to the dental sciences.

Dental terms are usually formed by a combination of small words or syllables linked in a “building block” or word chain.

Many dental terms **originate** from:

- The names of bones or structures
- The names of dental procedures or practical approaches.

Dental Terms		
Prefix	Root	Suffix

Acronyms: an abbreviation

Eponyms: a person after whom a discovery, invention, place, etc., is named

Homonyms: two or more words having the same spelling but different meanings.

Dental Terminology

A **prefix** is the first building block of a word division that begins a term. A **prefix** alters the word's meaning by indicating **number, color, size, location, or condition.**

Table 1-1 Examples of Prefixes Denoting **Quantity or Number**

Prefix	Meaning	Example	
bi-	two,	double	bifurcation
hemi-	half	hemisection	
prim-/i-	first	primary	
quad-/quat-	four	quadrant	
semi-	half	semiluminal	
Tri-	three	trigeminal	
Uni-	one	unilateral	

Table 1-2 Examples of Prefixes Denoting Color

Prefix	Color	Example
Albus-	white	albumen
cyan-/o-	blue	cyanosis
Erythr-/o-	red	erythrocyte
leuk-/o-	white	leukoplakia
melan-/o-	black	melanoma
xanth-/o-	yellow	xanthoma

Table 1-3 Examples of Prefixes Denoting Size or Degree

Prefix	Meaning	Example
hyper-	over/excess	<i>hypertrophy</i>
hypo-	under/below	<i>hypoplasia</i>
macro-	large	<i>macrodontia</i>
micro-	small/minute	<i>microbe</i>
pan-	all around	<i>panoramic</i>
ultra-	extreme/beyond	<i>ultrasonic</i>

Table 1-4 Examples of Prefixes Denoting **Location or Direction**

Prefix	Meaning	Example
ab-	away from	<i>Abduction</i>
ad-	toward/near	<i>Adduction</i>
ambi-	both sides	<i>ambidextrous</i>
de-	down from	<i>dehydration</i>
dexi-	right side	<i>dexter</i>
ecto-	outside	<i>ectopic</i>
endo-	within	<i>endodontic</i>
epi-	upon/over	<i>epidermis</i>
ex/o-	out from	<i>excretion</i>

Table 1-4 Examples of Prefixes Denoting **Location or Direction**

Prefix	Meaning	Example
infra-	below	<i>infraorbital</i>
inter-	in midst of	<i>interdental</i>
im-	into/position	<i>implant</i>
mes-/o-	mid, among	<i>mesioclusion</i>
para-	near/beside	<i>parasagittal</i>
peri-/o-	around	<i>periodontal</i>
pre-/ante-	before	<i>premolar</i>
retro-	behind/back	<i>retromolar</i>
sub-	under, lesser	<i>subdermal</i>
supra-	above/over	<i>supraorbital</i>

Examples of Prefixes Denoting **Condition**

Prefix

Meaning

Example

a-, an-

without

anodontia

Brady-

slow

bradycardia

Tachy-

fast

tachycardia

contra-

against

contrangle

dis-

take away

disinfectant

in-

not

insoluble

mal-

bad

malocclusion

un-

non/not

unerupted

A Root Word: The main section or division of a term that provides the foundation or basic meaning

Table Common Dental Root / Combining Forms

Root	Combo Form	Pertains To
Alveolar	alveo	alveolus
Apical	apic-/o-	apex of a root
Buccal	bucc-/o-	cheek
Coronal	coron-/o-	crown
Dens	dent-/o-	tooth
Distal	dist-/o-	farthest from center
Enamel	ename-/o- or amel-/o-	tooth, enamel tissue
Frenum	frene-	frenum
Gingiva	gingiv-/o-	gingiva, gum tissue
Glossa	gloss-/o- or gloss/a	tongue
Gnatho	gnath-/o-	jaw, cheek
Incisor	incis-/o-	incisor tooth

A Root Word: The main section or division of a term that provides the foundation or basic meaning

Common Dental **Root/Combining Forms**

Root	Combo Form	Pertains To
Labia	labi-/o-	lip area
Lingua	lingu-/o-	tongue
Mesial	mesi-/o-	middle, midplane
Mucosa	muc-/o-	tissue lining an orifice
Occlude	occlus-/o-	occluding, jaw close
Odont	odont-/o-	tooth
orthos	orth-/o-	straight, proper order
stoma	stoma-	mouth

A suffix: An element added to the end of a root word or combining form to describe or qualify the word meaning is

Table Examples of Suffixes **Indicating Condition**

Suffix

Condition of Root Foundation

Sounds Like

-ia	anesthesia (without feeling)	(an-es- THEE -zee-ah)
-id	cuspid (cusp shape)	(CUSS -pid)
-ion	occlusion (bite)	(oh- CLUE -shun)
-ism	bruxism (tooth grinding)	(BRUCKS -ism)
-itis	arthritis (joint inflammation)	(ar- THRI -tis)
-pathy	myopathy (muscle disease)	(MY -oh-path-ee)
-tion	mastication (chewing)	(mass-tah- KAY -shun)

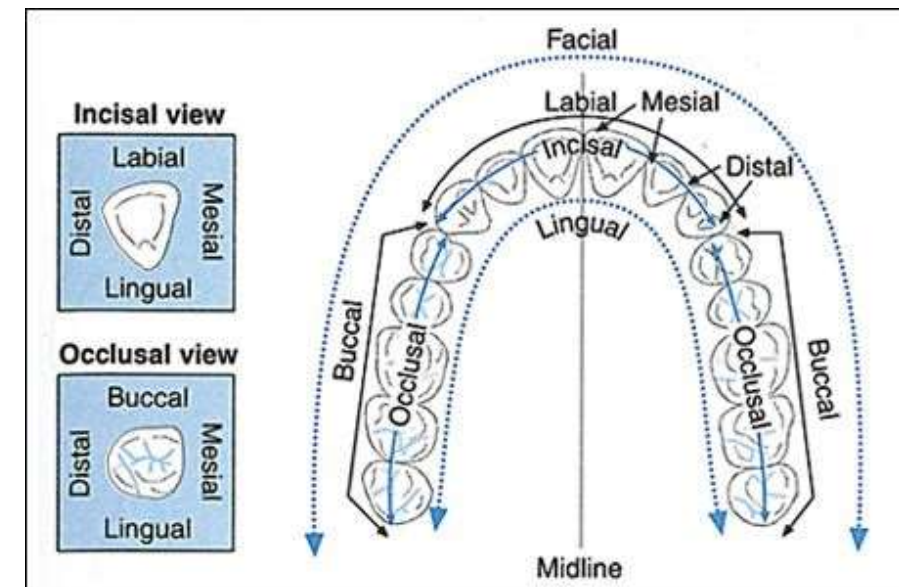
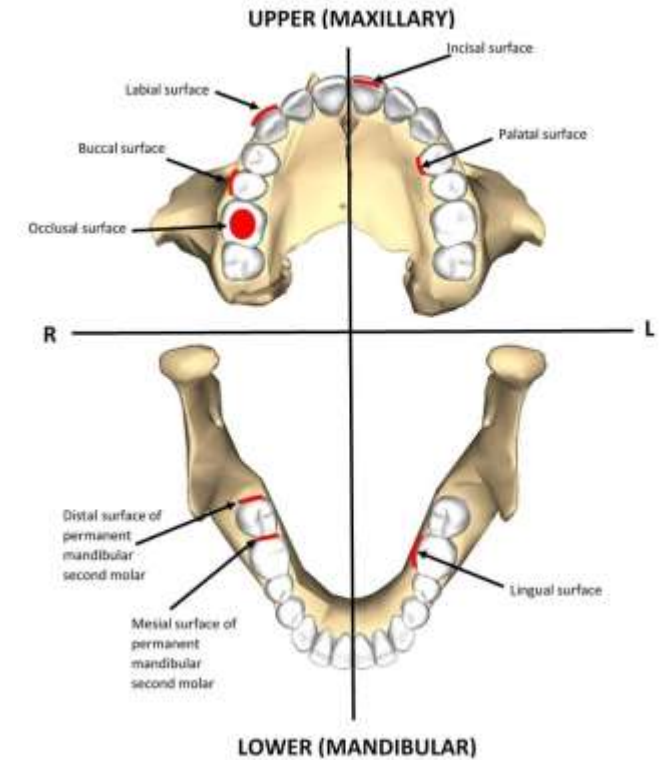
A suffix: An element added to the end of a root word or combining form to describe or qualify the word meaning is

Table Suffixes Expressing Medical Terms, Processes, Uses

Suffix	Meaning	Sample Words
-algia	pain	<i>odontalgia, neuralgia, myalgia</i>
-cide	kill	<i>germicide, homicide</i>
-cyte	cell	<i>leukocyte, osteocyte</i>
-ectomy	surgical removal	<i>apicoectomy, appendectomy</i>
-plasty	surgical repair	<i>gingivoplasty</i>
-tomy	incision	<i>myotomy (muscle)</i>

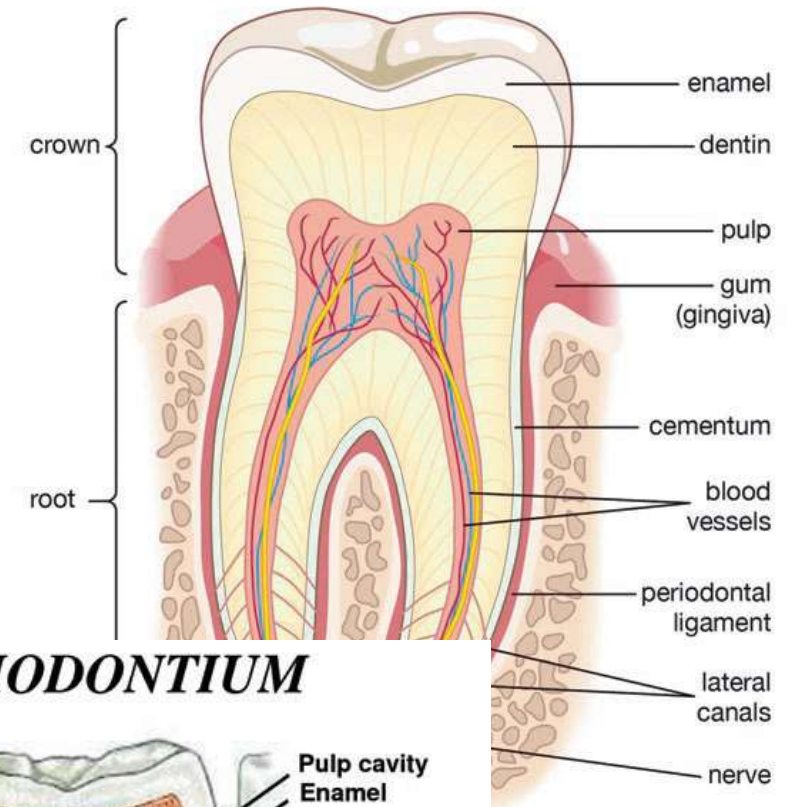
Tooth surfaces

- Buccal : towards the cheek
- Lingual : toward the tongue
- Labial : towards the lips
- Palatal : towards the palate
- Mesial= towards the midline
- Distal = away from the midline
- Occlusal the direction towards the biting surface of posterior teeth
- Incisal= the direction towards the biting edge of anterior teeth

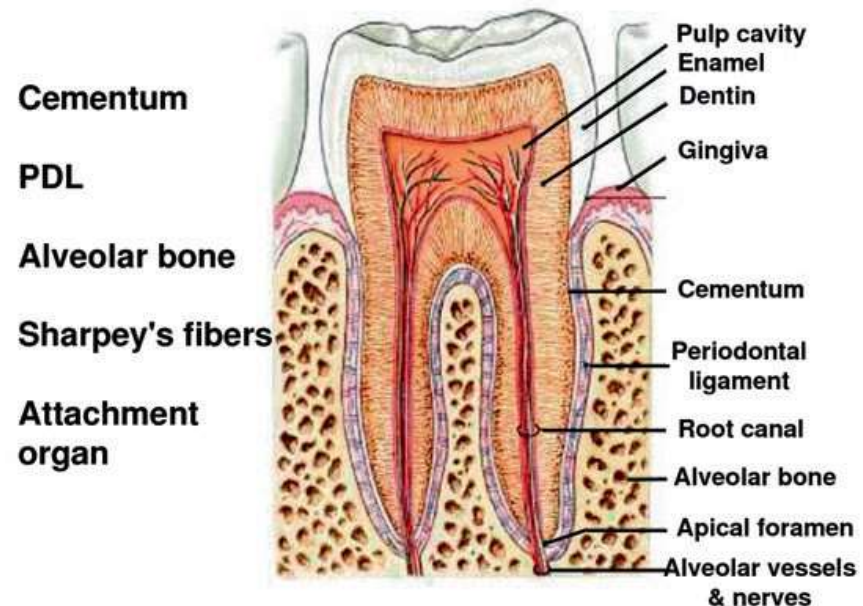


Tooth layers

- Enamel
- Dentin = tissue of tooth surrounding the pulp
- Pulp = (soft, vascular tooth tissue) is found in the center of the tooth.
- Pulp chamber = found in the crown
- Pulp canal = found in the root
- Gums / Gingiva
- Alveolar bone
- Cementum = tissue covering of tooth root)
- Periodontal ligament



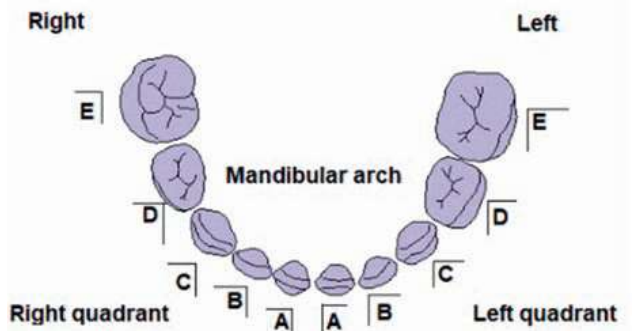
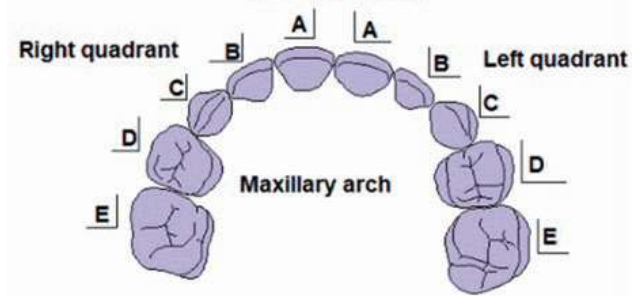
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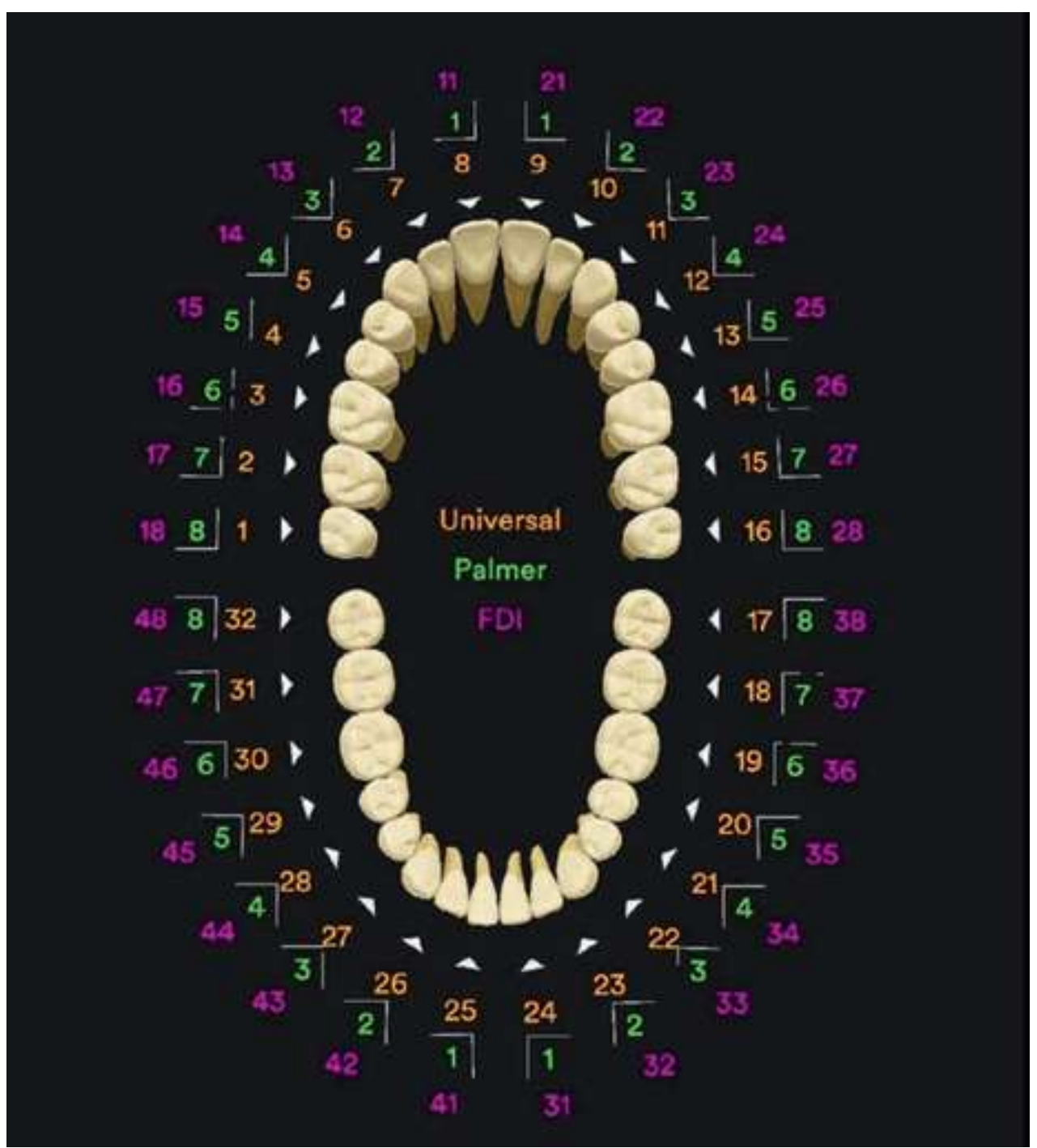
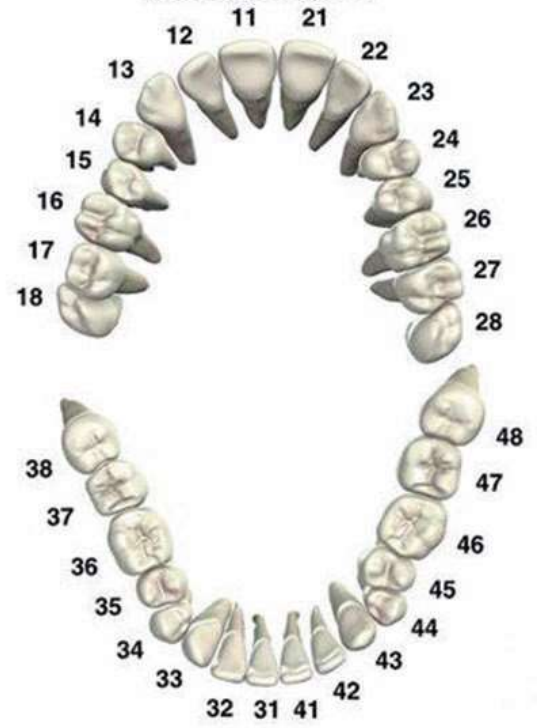
Tooth Numbering Systems

- 1. Symbolic (Palmer) system notation (L 1-8)**
- 2. Universal numbering system. (# 1-32)**
- 3. FDI system (two-digits)**

**Palmer Notation System
(Primary Teeth)**

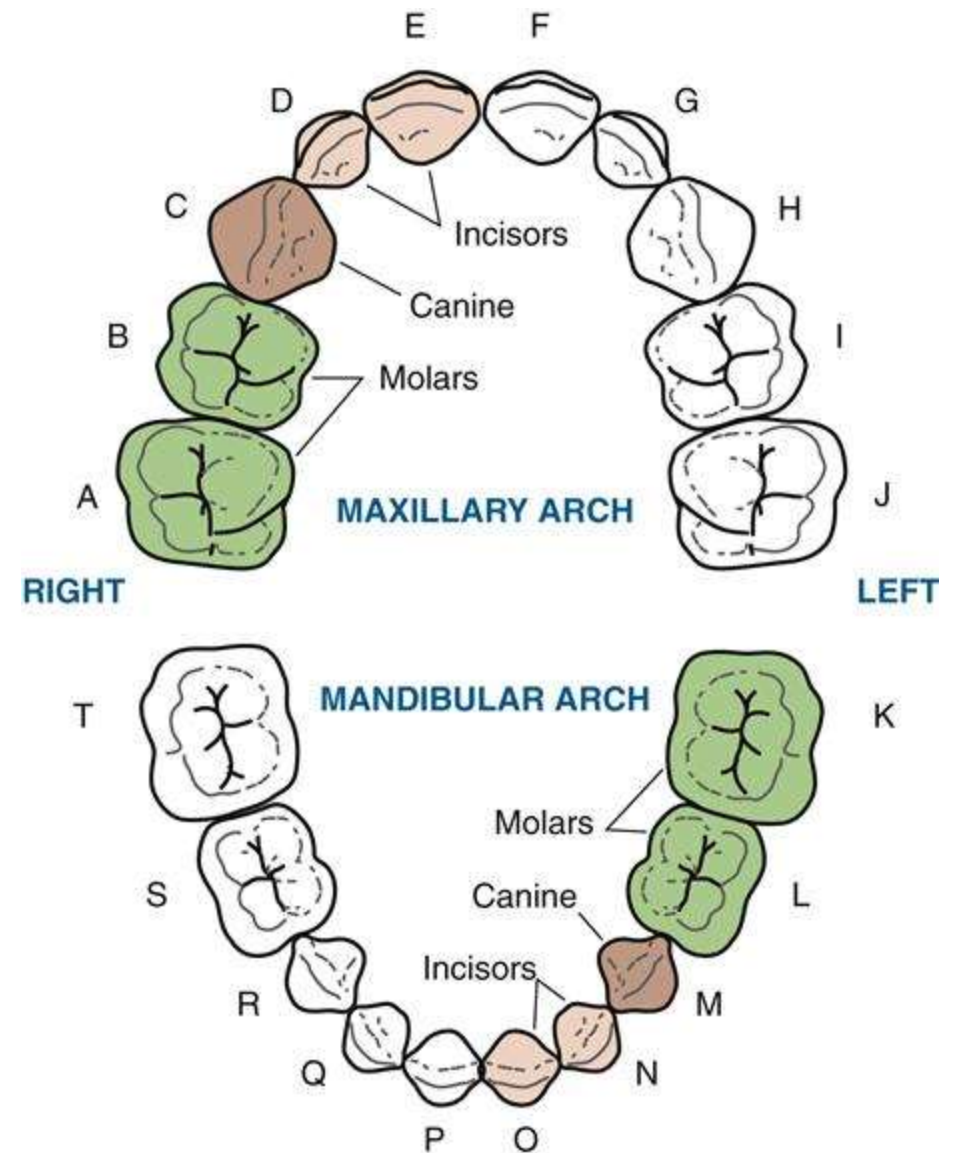


**FDI World Dental Federation Notation
(ISO-3950 notation)**



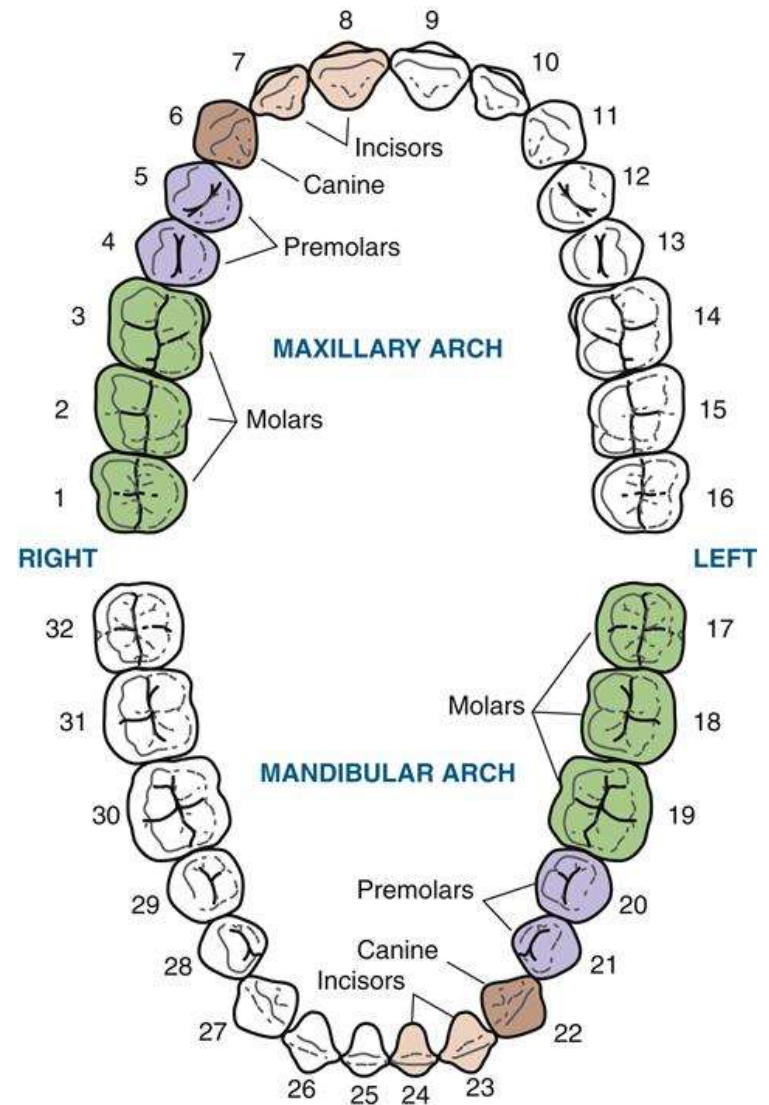
Primary or Deciduous dentition

The 20 deciduous teeth erupting first are commonly called “baby teeth” or primary teeth.



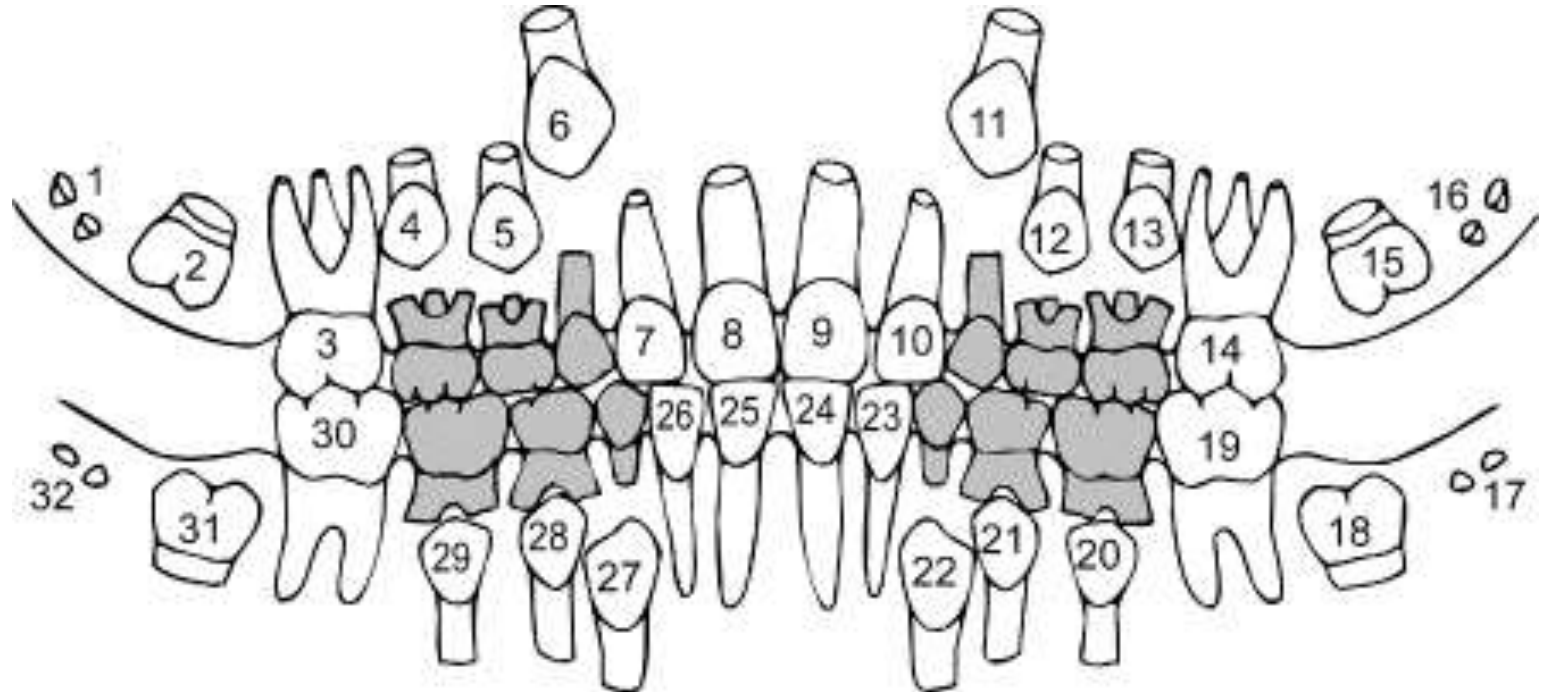
Succedaneous or Permanent teeth

The 32 permanent teeth that erupt and replace the deciduous teeth are commonly called secondary teeth.



Transition or Mixed dentition period

Mixed dentition occurs from age 6 to 12, when the dentition contains both deciduous and secondary teeth.



Common conditions that affecting the oral cavity

Stomatitis: inflammation of the mouth

Gingivitis: inflammation of the gingiva (gum)

Dental caries: tooth decay= cavities in the teeth caused by bacteria

Odontalgia: toothache = pain in the tooth

Bruxism: = involuntary grinding of the teeth that usually occurs during sleep

Dental Terminology

Natal teeth are present at birth which develop and erupt during the intrauterine life

Neonatal teeth erupt during the first month of life, creating a disturbance in physiological chronology

Microdontia is an anomaly in which teeth appear smaller than the normal

Macrodontia refers to a tooth or a group of teeth that are larger than normal.

Anodontia is described as complete agenesis of the dentition.

Supernumerary teeth, also known as **hyperdontia**, refer to the presence of an additional tooth or teeth to the existing series of teeth.