



INTRODUCTION TO DENTISTRY



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DONE BY : Asia Al-wedyan.

وَقُلْ رَبِّ زِدْنِي عِلْمًا



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 اختصارات مثل كلمة TMJ

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

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

لَفْسُ الْكَلِمَةِ نَكَاةٌ بِمَعَانِيٍّ مُخْتَلِفَةٍ .

• بتكون ببداية الكلمة ، وتقوم بتغيير معنى الكلمة

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	

● It is very important to know the meaning of the prefix

Table 1-2 Examples of Prefixes Denoting Color

Prefix	Color	Example
Albus-	white	albumen → Protein that is found in the blood.
cyan-/o-	blue	cyanosis → ازرقاق بلون البشرة
Erythr-/o-	red	erythrocyte → Red blood cell
leuk-/o-	white	leukoplakia → بياض في الفم ✱
melan-/o-	black	melanoma
xanth-/o-	yellow	xanthoma

(oma) means cancer

Table 1-3 Examples of Prefixes Denoting Size or Degree

Prefix	Meaning	Example
hyper-	over/excess	hypertrophy → زيادة في حجم العضو (organ)
hypo-	under/below	hypoplasia → اقل تكاثر بين الخلايا
macro-	large	macrodontia
<u>micro-</u>	small/minute	microbe
pan-	all around	panoramic
ultra-	extreme/beyond	ultrasonic → الموجات فوق الصوتية

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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 <small>يزيل من الشيء - Down from</small>	<i>dehydration</i> → جفاف من الماء
dexi-	right side	<i>dexter</i>
ecto-	outside	<i>ectopic</i> → يستخدموها اطباء الاسنان بمعنى بزوغ شيء مش بمكانه
endo-	within	<i>endodontic</i> → احد تخصصات طب الاسنان ، وهو علاج الجذور
epi-	upon/over	<i>epidermis</i>

Table 1-4 Examples of Prefixes Denoting Location or Direction

Prefix

Meaning

Example

infra-

below

infraorbital

inter-

in midst of

interdental

mes-/o-

mid, among

mesioclusion

para-

near/beside

parasagittal

peri-/o-

around

periodontal

pre-/ante-

before

premolar

retro-

behind/back

retromolar

sub-

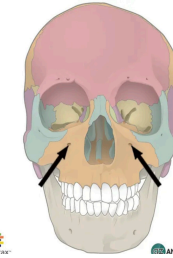
under, lesser

subdermal

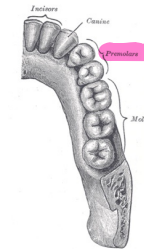
supra-

above/over

supraorbital

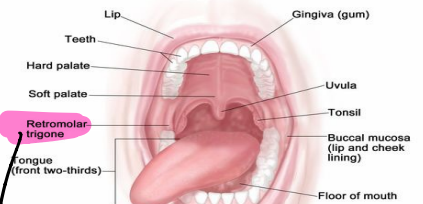


Structures around the teeth .
زي اللثة العظام و غيره



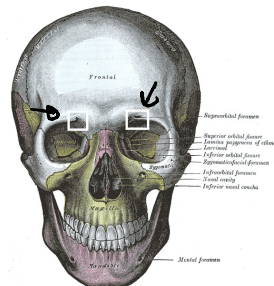
premolar.

Anatomy of the Oral Cavity



retromolar.

المنطقة الي تحت الجلد



ال box الأبيض
هو ال supraorbital

Examples of Prefixes Denoting **Condition**

Prefix

Meaning

Example

a-, an-

without

anodontia

Brady-

slow

bradycardia ← تباطؤ في نبضات القلب

Tachy-

fast

tachycardia → تسارع في نبضات القلب

contra-

against

contrangle

dis-

take away

disinfectant

mal-

bad / Abnormally

malocclusion → سوء اطباق

ob
very important
prefix

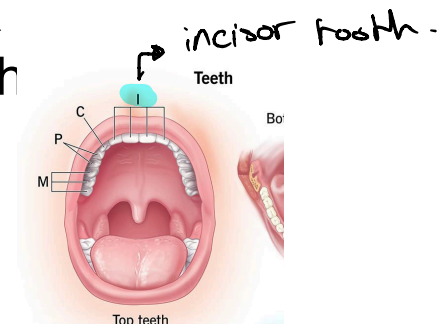
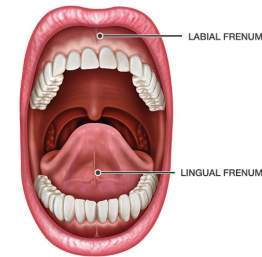
A Root Word: The main section or division of a term that provides the foundation or basic meaning

Table Common Dental Root / Combining Forms

Root	Combo Form	Pertains To
Alveolar ^{تجاويف}	alveo	alveolus
Apical ^{الجزء العلوي}	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

related to the

Enamel is The outer layer that covers the 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 → اي سطح قريب لل tongue بسمي Lingual surface
Mesial	mesi-/o-	middle, midplane → it is an opening
Mucosa	muc-/o-	tissue lining an orifice
Odont	odont-/o-	tooth
orthos	orth-/o-	straight, proper order → Orthodontics (العلاج بالتقويم) straightens the teeth بتبلش ب ortho بمعنى
stoma	stoma-	mouth ↓ Stomatitis (التهاب الفم / الحمو) بلشت ب stoma لانها متعلقه بالفم

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

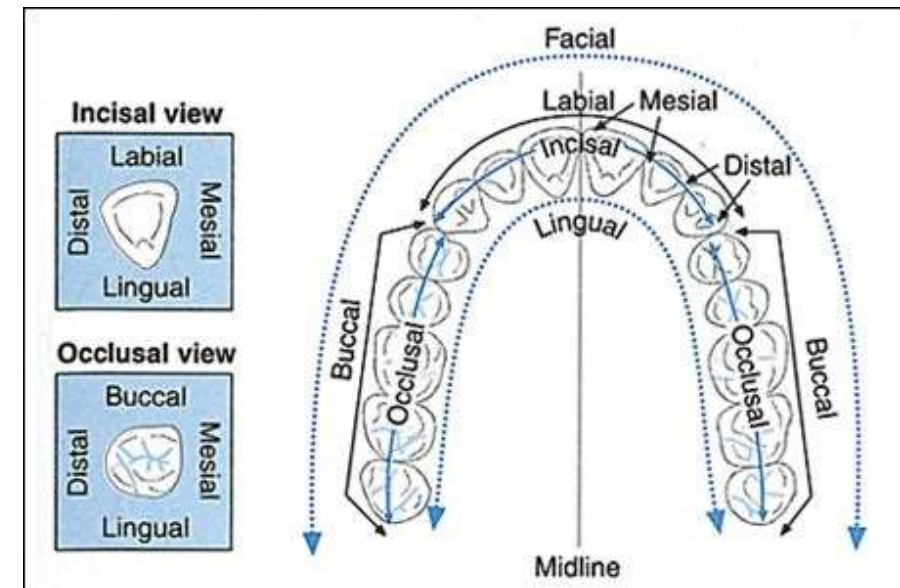
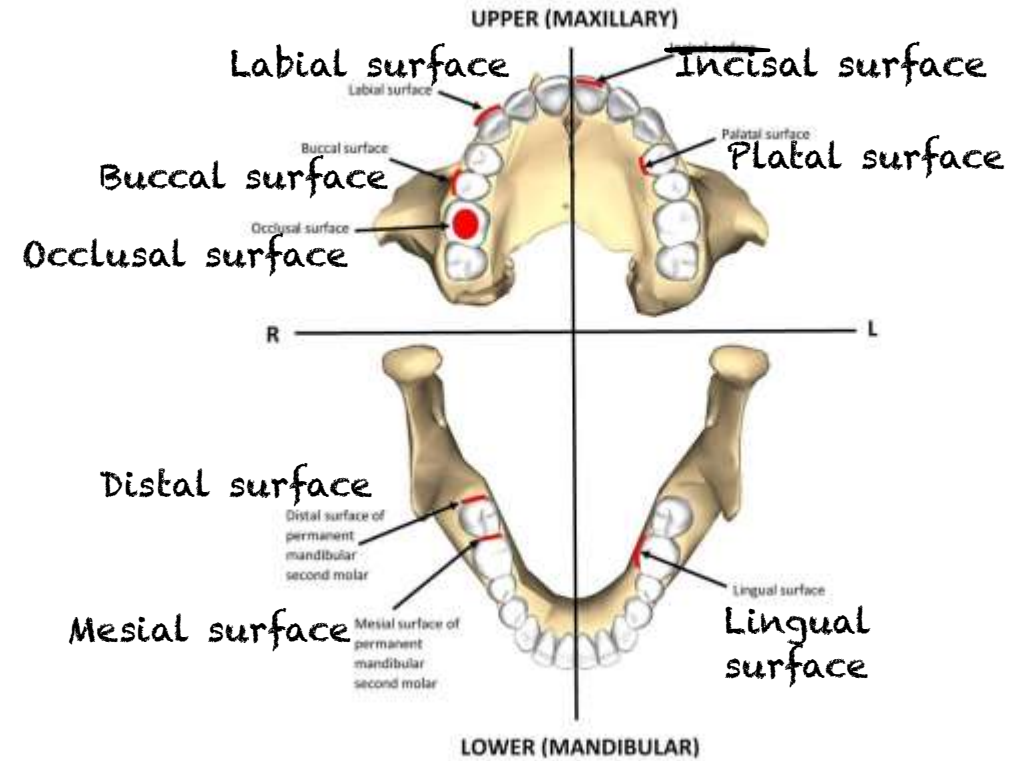
Suffix	Meaning	Sample Words
-algia	pain	odontalgia, neuralgia, myalgia
-cide	kill	germicide, homicide
-cyte	cell	leukocyte, osteocyte
-ectomy	surgical	<u>removal</u> apicoectomy, appendectomy
-plasty	surgical repair	gingivoplasty
-tomy	incision	myotomy (muscle)

ectomy : remove / قطع

fomy : جزء

Tooth surfaces

- **Buccal** : towards the **check** قريب من ال check
- **Lingual** : toward the **tongue**
- **Labial** : towards the **lips** سقف الفم
- **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

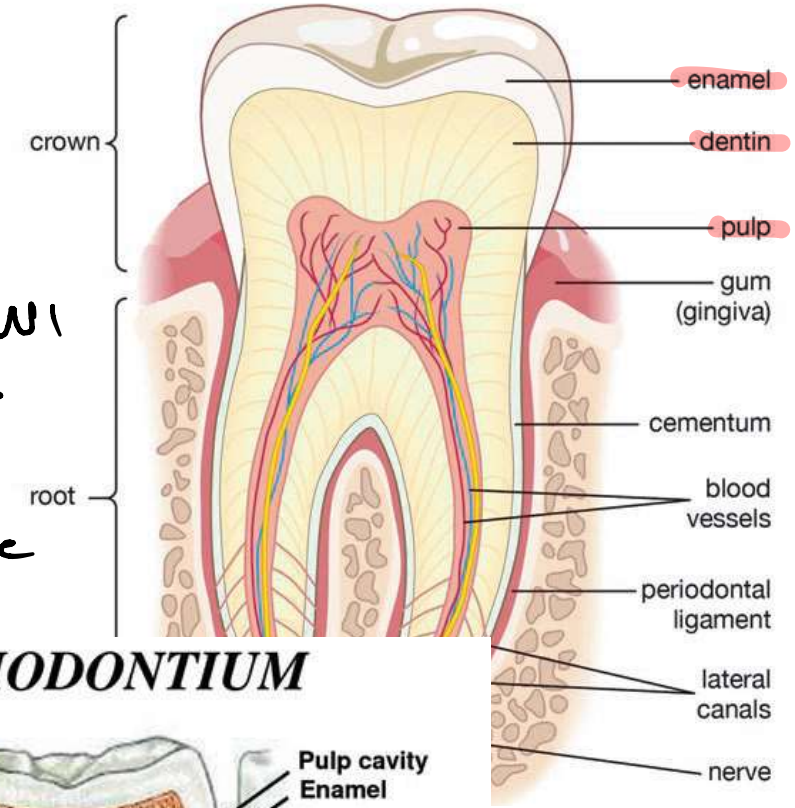
- Enamel = outer layer of tooth tissue surrounding crown
- Dentin = tissue of tooth surrounding the (pulp)
- Pulp = (soft, vascular tooth tissue) is found in the center of the tooth.

- ↳ ① Pulp chamber = found in the crown
- ↳ ② Pulp canal = found in the root

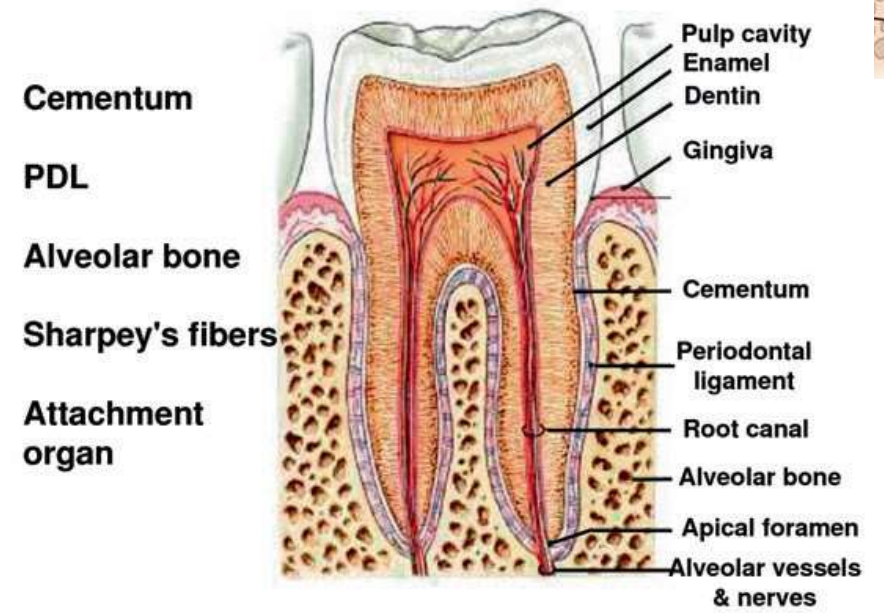
- Gums / Gingiva
- Alveolar bone
- Cementum = tissue covering of tooth root)
- Periodontal ligament

↳ is a bone layer.

اللحم الداخلي
عباره عن
نسيج
هناك
لا يوجد
عظم



PERIODONTIUM



Tooth Numbering Systems

3 systems:

System 1 - بقسم الفم لارباع اقسام
Upper right / upper left / lower right / lower left

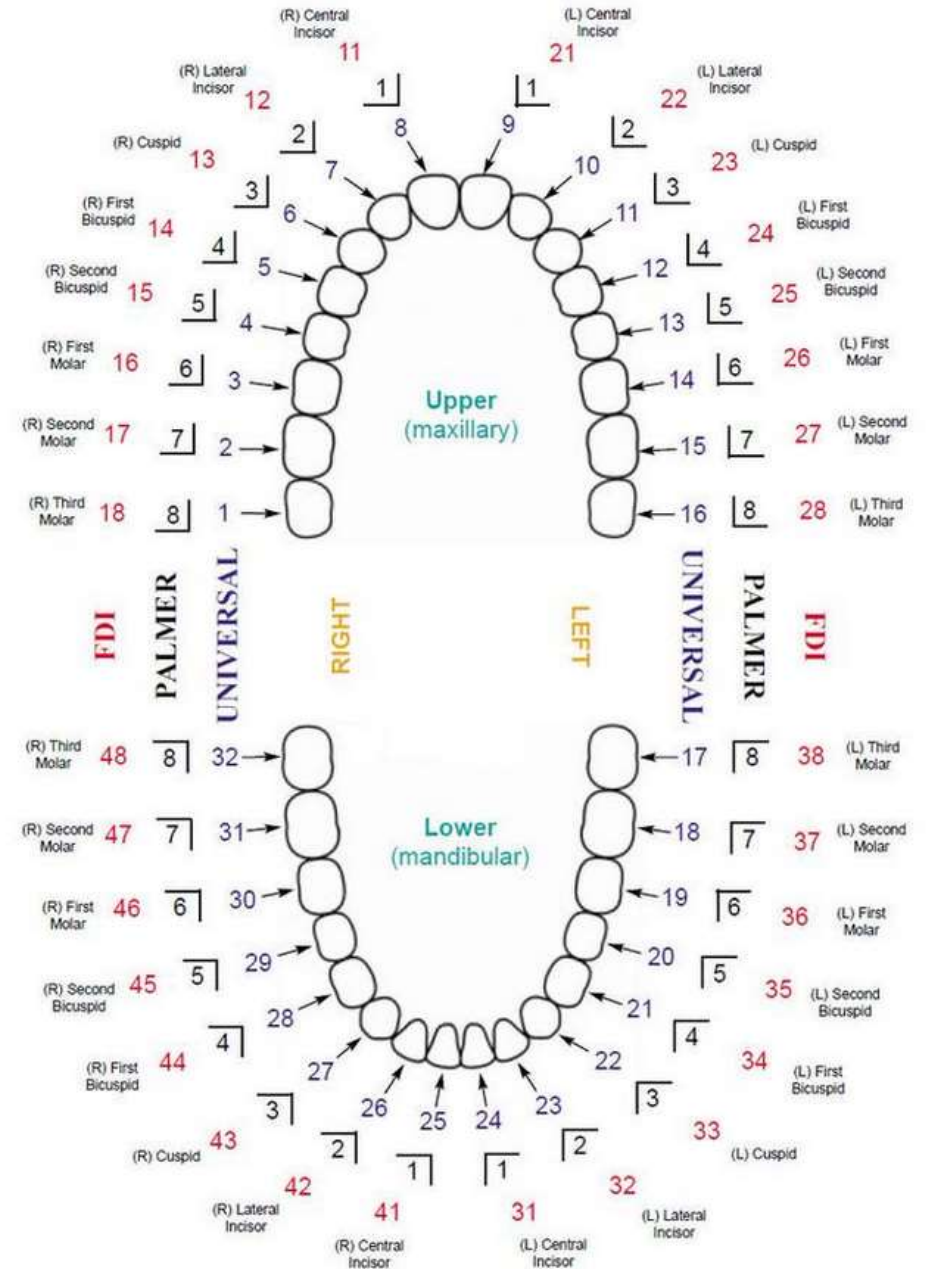
1. Symbolic (Palmer) system

notation (L 1-8)

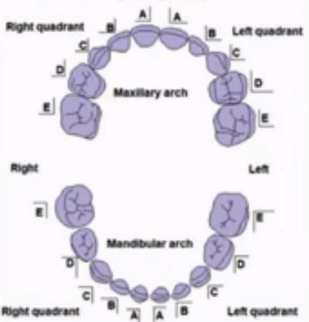
2. Universal numbering system. (# 1-32)

System 2 - it counts the teeth from 1 to 32 clockwise

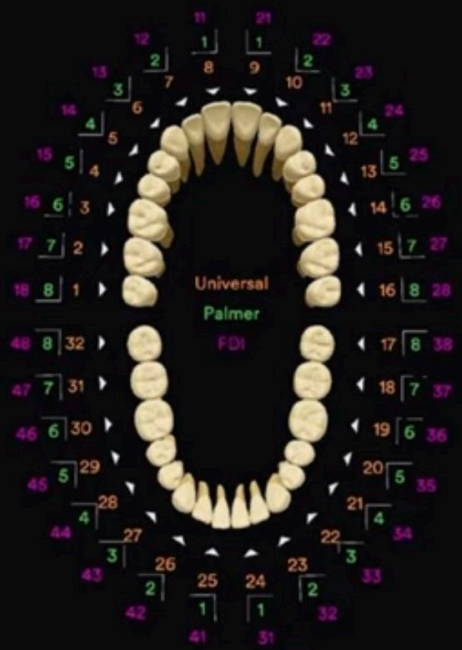
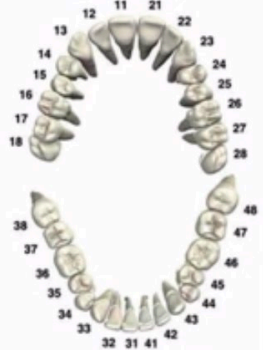
3. FDI system (two-digits)



Palmer Notation System
(Primary Teeth)



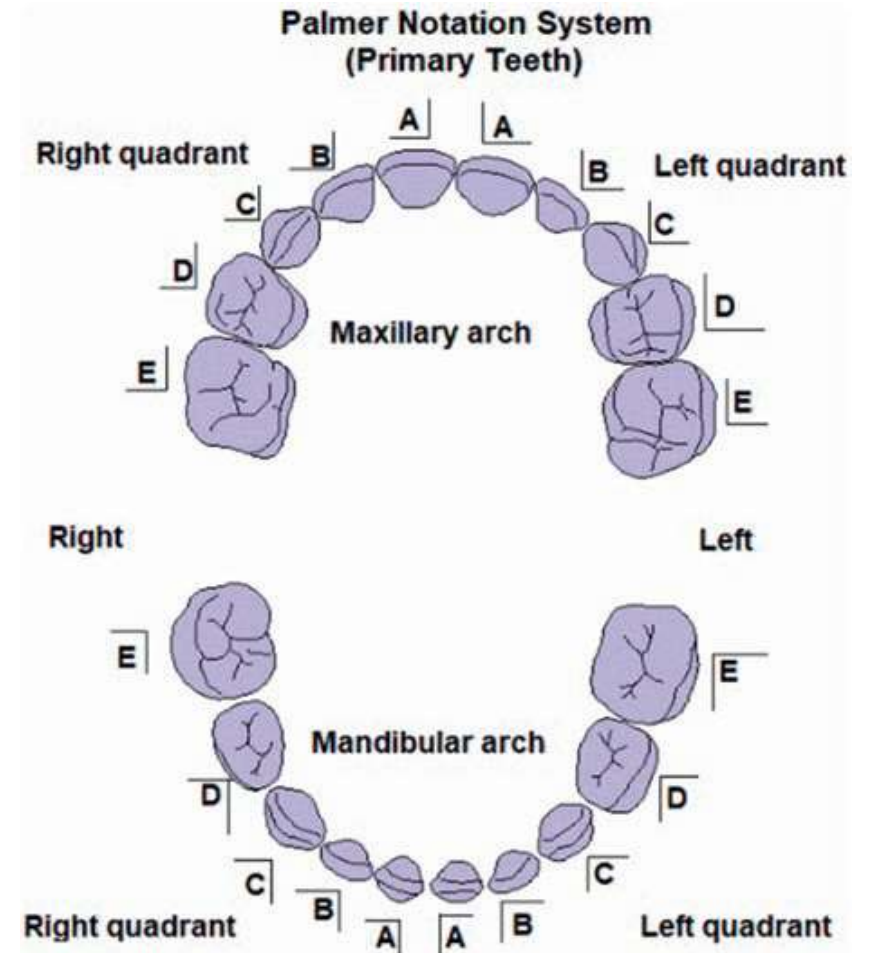
FDI World Dental Federation Notation
(ISO-3950 notation)



Primary or Deciduous dentition

الأسنان اللبنية

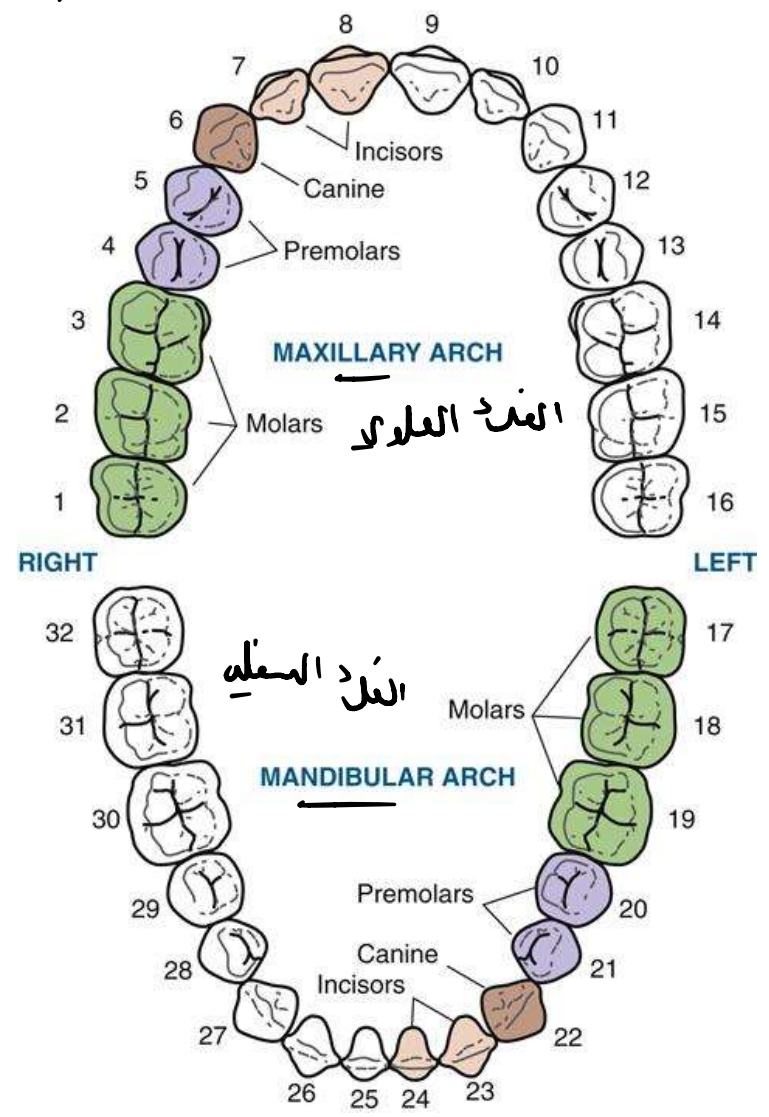
The 20 deciduous teeth erupting first are commonly called “baby teeth” or primary teeth.



الأسنان الدائمة

Succedaneous or Permanent teeth

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

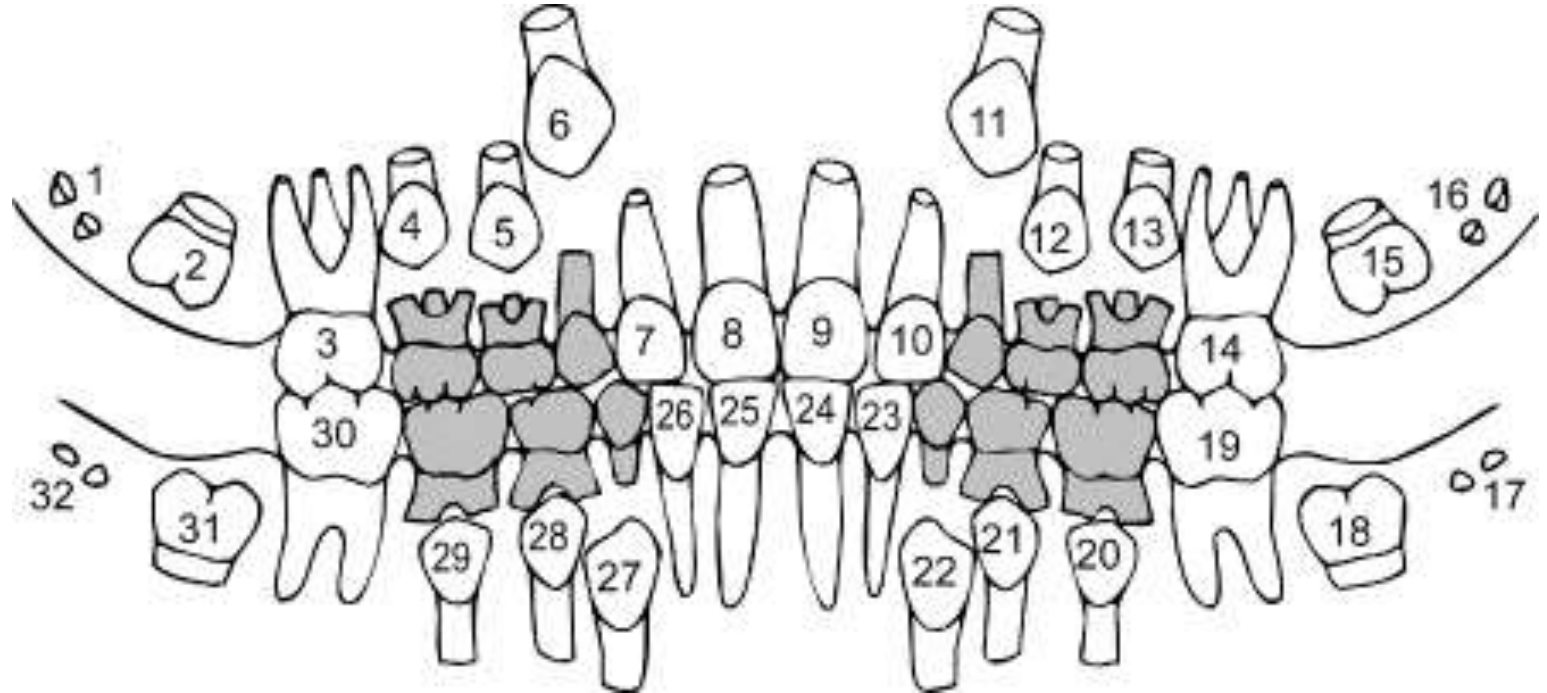


Universal numbering system. (# 1-32)

Transition or Mixed dentition period

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

يكون فيها سنّان دائميّة
و سنّان لبنيّة.



Universal numbering system. (# 1-32)

Common conditions that affecting the oral cavity

- Stomatitis:** inflammation of the mouth → التهاب الفم
- Gingivitis:** inflammation of the gingiva (gum) → التهاب اللثة
- Dental caries:** tooth decay= cavities in the teeth caused by bacteria → تسوس الاسنان
- Odontalgia:** toothache = pain in the tooth → وجع و الألم في الاسنان .
- Bruxism:** = involuntary grinding of the teeth that usually occurs during sleep → السدع مع الاسنان بغير وعية متكررة .
للمرعبه انو تبصر الاسنان تطلع صوت .
وبالغالب تبصر خلال النوم .

Dental Terminology

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

نول العن بالسنه هذه
Natal teeth.

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. →
تركيبة الاسنان
A medical term of complete absence teeth

Supernumerary teeth, also known as **hyperdontia**, refer to the presence of an additional tooth or teeth to the existing series of teeth. →
Hyperdontia refers to an excess number of teeth beyond the expected 20 deciduous and 32 permanent teeth