



جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

كلية العلوم
قسم الانظمة الطبية الذكية
Lecture: (2)

Subject: **Building of medical terminology**

Level: First

Lecturer: MSc. Mustafa Yousif

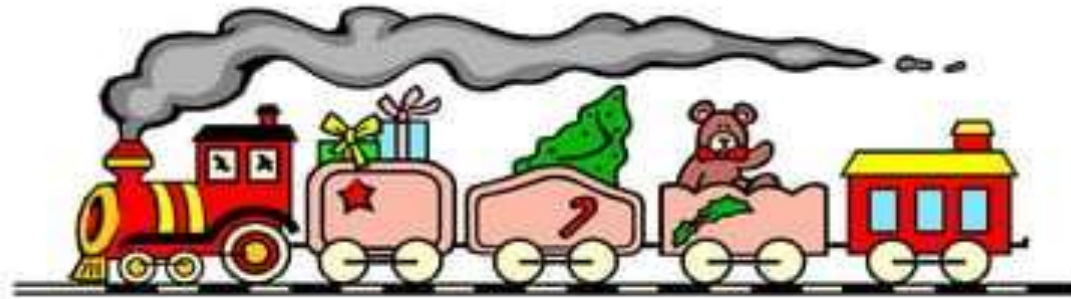
Building blocks of medical language

- Medical terms are made up of several parts – elements – that can be combined to make many different words
- Learning the meaning of these elements helps understand many medical terms

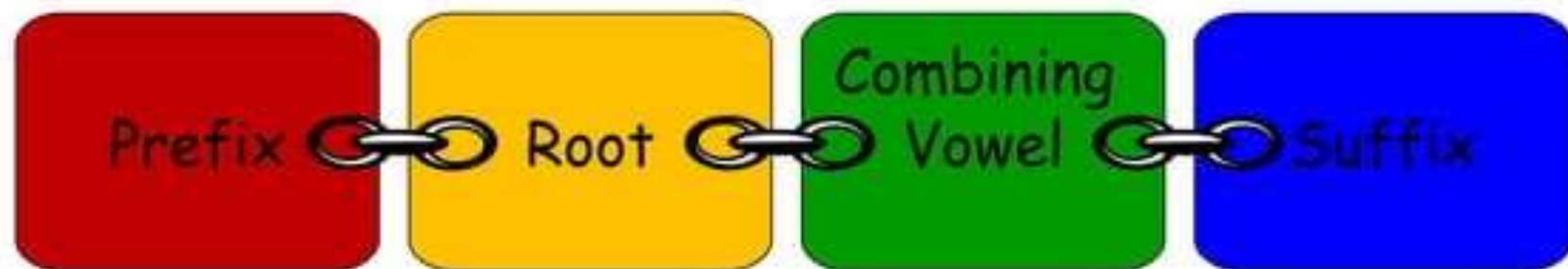
Building blocks of medical language

3 principle elements make up medical terms:

1. roots and combining forms
2. prefixes
3. suffixes



Each element is essential to understanding the meaning of the medical term



Combining Vowels

- ❑ Make it possible to pronounce long terms
- ❑ Usually an "O"
- ❑ Combine two word parts:
 - Between two word roots
 - Between word root and suffix



Combining Vowel Rules

- ❑ Between word root and suffix
- ❑ If the suffix begins with a **vowel**
 - **Do not** use a combining vowel
 - Arthr**itis**, not arthr**oitis**
- ❑ If the suffix begins with a **consonant**
 - **Use** a combining vowel
 - Arthro**s**cope, not arthr**s**cope



Combining Vowel Rules

- ❑ Combining vowel is typically kept between two word roots

- ❑ Even if the second word root begins with a vowel
 - gastro**oe**nteritis, not gastro**e**nteritis



Combining Form

- ❑ Typically used to write word roots
- ❑ Also use the word root/combining vowel format
- ❑ Examples:
 - cardi/o
 - arthr/o
 - gastr/o



Prefix

- Added to the **front** of a term

 - May add meaning such as:
 - location of organ **sub-** = below
 - number of parts **mono-** = one
 - time (frequency) **post-** = after
-

Prefix

- Not all medical terms have a prefix
 - When written by itself, followed by a hyphen
 - intra-
 - hyper-
 - multi-
-

Common Prefixes

- a-
without, away from
 - an-
without
 - ante-
before, in front of
 - anti-
against
 - auto-
self
 - brady-
slow
 - dys-
painful, difficult
-

Common Prefixes

endo-
within, inner

epi-
upon, over

eu-
normal, good

hetero-
different

homo-
same

hyper-
over, above

hypo-
under, below

Common Prefixes

- para-
beside, beyond, near
 - per-
through
 - peri-
around
 - post-
after
 - pre-
before, in front of
 - pseudo-
false
 - retro-
backward, behind
-

Common Prefixes

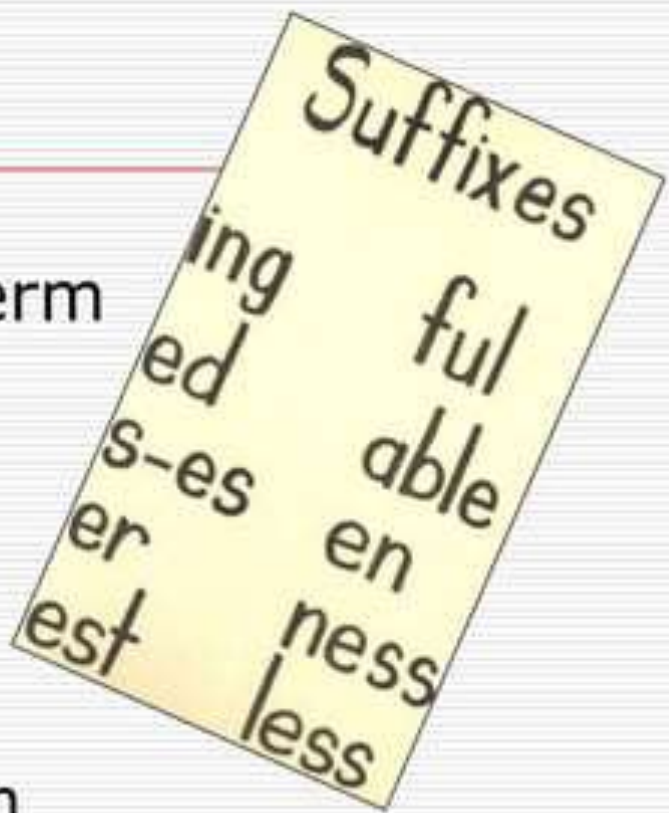
- sub-
below, under
 - super-
above, excess
 - supra-
above
 - tachy-
fast
 - trans-
through, across
 - ultra-
beyond, excess
-

Suffix

□ Attached to the **end** of a term

□ Adds meaning such as:

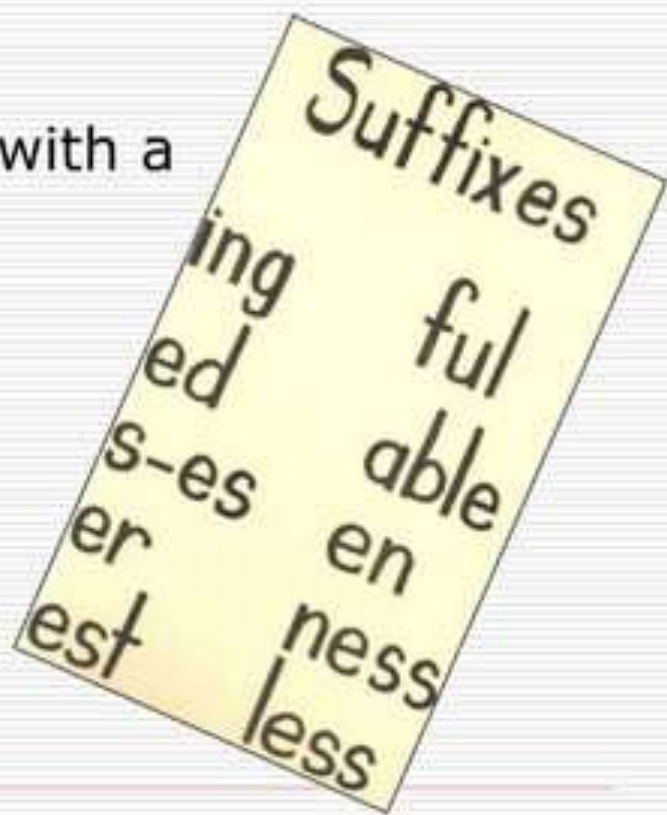
- condition -algia = pain
- disease -itis = inflammation
- procedure -ectomy = surgical removal



Suffix

- **All** medical terms **must** have a suffix
 - Only mandatory word part

- When written by itself, precede with a hyphen
 - -logy
 - -sclerosis
 - -cyte



Common Suffixes

-algia

pain

-cele

hernia, protrusion

-cise

cut

-cyte

cell

-dynia

pain

-ectasis

dilatation

-gen

that which produces

-genesis

produces, generates



Common Suffixes

□ -genic
producing

□ -ia
state, condition

□ -iasis
abnormal condition

□ -logy
study of

□ -ism
state of

□ -itis
inflammation

□ -logist
one who studies

□ -lysis
destruction

Common Suffixes

- -malacia
abnormal softening
 - -megaly
enlargement, large
 - -oma
tumor, mass
 - -osis
abnormal condition
 - -pathy
disease
 - -plasia
development, growth
 - -plasm
formation, development
 - -ptosis
drooping
-

A top-down view of a wooden desk. On the left is a black alarm clock with a yellow face and a yellow bell. In the center is a white pen. In the bottom left is a pair of black-rimmed glasses. On the right is an open spiral-bound notebook with white pages. The left page has the text 'Thank You For Your Attention' written in black cursive.

Thank You
For Your
Attention