



Medical Terminology

Lecture 1

First stage

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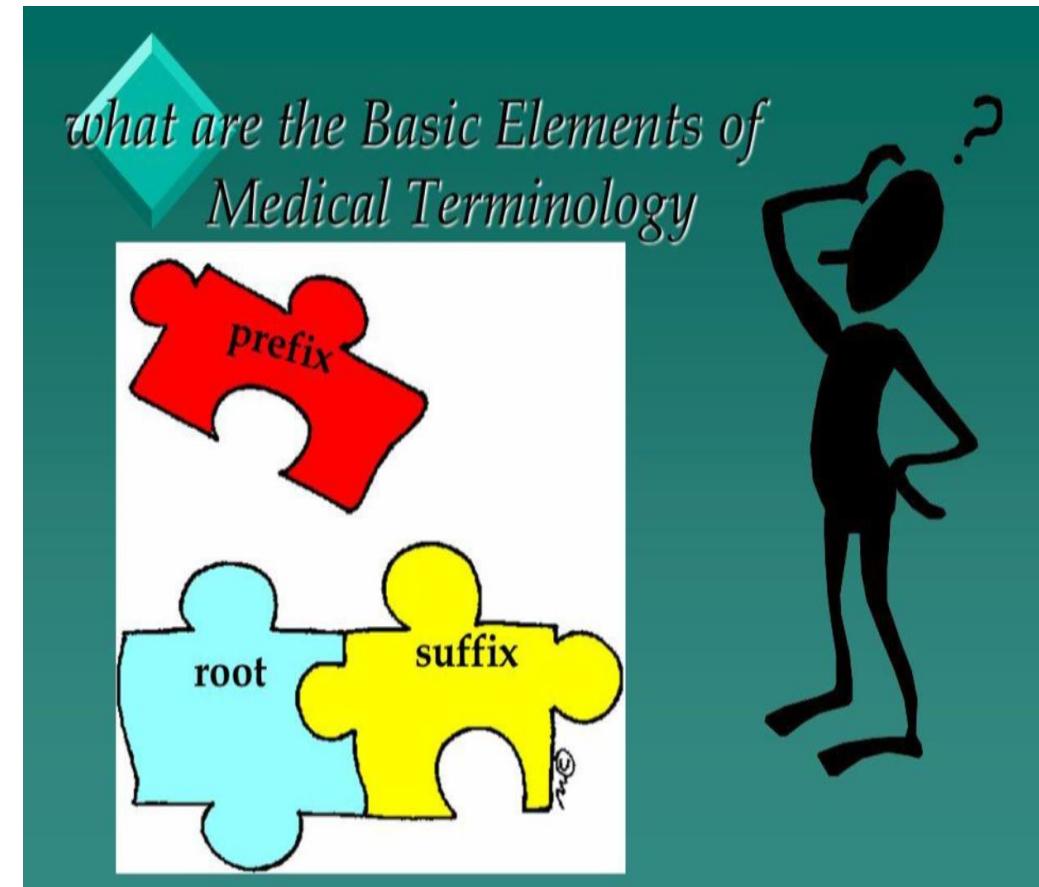
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Introduction

- ▶ **Medical terminology:** is a language that is used in the medical and nursing fields to accurately describe the human body and associated components, conditions, processes in a science-based manner.

Basic Elements of a Medical Word (Word Elements)

- ▶ There are four types of word elements that make up medical terms include:
 1. Roots
 2. Prefixes
 3. Suffixes
 4. Combining form
- ▶ Medical terms contain one or more of these elements.



1-Word Roots

- ▶ It is the base element from which other related terms may be formed.
- ▶ Reveals the central meaning of the word.
- ▶ Usually describe a body part.
- ▶ May be used alone or combined with another root, with prefixes and with suffixes in various combinations to form a medical term.
- ▶ Examples:

Periarthritis

Common Roots in Medical Terms

Root

- ▶ Bronch/o
- ▶ Derm/o, dermat/o
- ▶ Hem/o, hemat/o
- ▶ Hep/o, hepat/o
- ▶ Psych/o
- ▶ Path/o
- ▶ Cardi/o
- ▶ Gastr/o
- ▶ Neur/o
- ▶ Oste/o

Refers to

- ▶ Bronchus
- ▶ Skin
- ▶ Blood
- ▶ Liver
- ▶ Mind
- ▶ Disease
- ▶ Heart
- ▶ Stomach
- ▶ Nerve cell, the nervous system
- ▶ Bone

2-Prefixes

- ▶ Prefix: is a word element that comes at the beginning of the word .
- ▶ Mainly used to modify the word root by giving additional information about the location of an organ, the number of parts, time, direction or frequency .
- ▶ Prefixes can be added to word roots and/or word roots with a suffix .
- ▶ **Examples:**
- ▶ **Hyper**gastric means above the stomach
- ▶ **Peri**arthritis means inflammation around the joint
- ▶ **Tachy**cardia means a rapid heart rate
- ▶ **Pre**natal means before birth.

Categories of Prefixes:

- ▶ **There are four functional categories of prefixes:**

1. • Prefixes of time or speed.
2. • Prefixes of direction.
3. • Prefixes of position.
4. • Prefixes of size or number.

Categories of Prefixes:

Prefixes	Refer to	Example	Categories of Prefixes
Tachy-	Rapid	Tachycardia	Prefixes of Speed
Brady-	slow	Bradycardia	Prefixes of Speed
Pre	Before	Premature	Prefixes of Time
Post	After	Postpartum	Prefixes of Time
Ab	Outside, Away from	Abnormal	Prefixes of Direction
Anti-, Contra-	Against	Contraindicate	Prefixes of Direction
Hyper-	Above, or excessive	Hypertension	Prefixes of Position
Hypo-	Below, below normal	Hypoglycemia	Prefixes of Position
Inter-	Between	Intercostal	Prefixes of Position
Intra-, endo-, en-	Inside, Within	Intracerebral, Encephalopathy	Prefixes of Position
Ecto-, Exo-	Outside	Ectopy	Prefixes of Position
Macro-	Big	Macrocyte	Prefixes of Size
Micro-	Small	Microscope	Prefixes of Size
Mono-	One	Monocyte	Prefixes of Number
Olig-, Oligo-	A few	Oliguria	Prefixes of Number

3- Suffixes

- ▶ Always come at the end of a root to add meaning.
- ▶ It may modify the root to indicate a condition, diagnostic test, procedure, or specialty.
- ▶ Examples: **-ectomy (removal of)**, **-logy (study of)**, **-itis (inflammation of)**
 - ▶ **Arthritis means inflammation of the joint.**

Note: Not all medical terms have suffixes but may have prefixes only (e.g. **brady**cardia) and vice versa not all medical terms have prefixes but may have suffixes(e.g. gastr**itis**), but some of the medical terms have prefixes and suffixes together (e.g. **peri**arthr**itis**).

Categories of Suffixes:

- ▶ **There are four functional categories of suffixes:**
 1. • Suffixes that signify medical conditions.
 2. • Suffixes that signify diagnostic terms, test information, or surgical procedures.
 3. • Suffixes associated with a medical specialty or specialist.
 4. • Suffixes that convert a noun to an adjective.

Categories of Suffixes:

Suffixes	Refer to	Example	Categories of Suffixes
-megaly	Enlargement	Cardiomegaly	Suffix of Medical Condition
-oma	Tumor	Gastroma	Suffix of Medical Condition
-itis	Inflammation	Tonsillitis	Suffix of Medical Condition
-rrhage	Flowing forth	Hemorrhage	Suffix of Medical Condition
-ectomy	Surgical removal	Appendectomy	Suffix of Surgical Procedure
-plasty	Surgical repair	Rhinoplasty	Suffix of Surgical Procedure
-scopy	Act of viewing	Arthroscopy	Suffix of diagnosis
-ian	Specialist	Pediatrician	Suffix of specialist
-ist	Specialist in the field of study	Orthopedist	Suffix of specialist
-ac, -al, -ar, -iac, -ic.	Pertaining to	Pediatric	Suffixes that denote Adjectives

4-Combining Form

- ▶ Consists of the word root plus one or more vowels.
- ▶ The vowel is called the combining vowel that is required to facilitate pronunciation.
- ▶ The combining vowel is usually an “**o**”, but others “**e** or **i**” may be used
- ▶ It is used between two word roots(e.g. gastroenteritis) , or between a root and a suffix when the suffix begins with a consonant(e.g. arteriostenosis).
- ▶ Some medical term contain both vowel **o** and **i** (e.g. card i /o logy).

Analyzing Medical Terms

- ▶ To analyze the medical term should follow the following steps:
 - 1) Separate the term into its word parts: identify root(s), suffix, and prefix.
 - 2) Attach the meaning to each of the word elements.
 - 3) Translate by starting at the end of the word with the suffix and moving to the prefix, if any, and then finally to the root.

EXAMPLES:		GASTR / ITIS	
Word		gastr	-itis
Element		root	suffix
Element Meaning		stomach	inflammation of
Word Meaning		inflammation of the stomach	

Analyzing Medical Terms

EXAMPLE: PERI- / ARTHR / -ITIS			
Word	peri-	arthr	-itis
Element	prefix	root	suffix
Element Meaning	around	joint	inflammation
Word Meaning	inflammation around a joint		

Analyzing Medical Terms

EXAMPLE: COMBINING VOWEL: BETWEEN ROOTS		GASTR / O / ENTER / ITIS		
Word	gastr/o	enter	-itis	
	↓	↓	↓	↓
Element	combining form (root + vowel)	root	suffix	
	↓	↓	↓	↓
Element Meaning	stomach	intestines	inflammation of	
Word Meaning	inflammation of the stomach and intestines			

EXAMPLE: COMBINING VOWEL: ROOT AND SUFFIX		CARD/I / O / LOGY	
Word	card/i/o		-logy
	↓		↓
Element	combining form (root + vowels)		suffix
	↓		↓
Element Meaning	heart		study of
Word Meaning	study of the heart		



Thank You