Introduction To Medial Terminology

Medial Terminology

- **Medical terminology** refers to the specialized language used by healthcare professionals to describe the human body, its conditions, procedures, and treatments.
- Understanding medical terminology is essential for clear communication among doctors, nurses, pharmacists, and other healthcare workers.
- **Medical terminology** consists of a system of words and phrases, often derived from Latin or Greek roots, that provide precise descriptions of medical concepts.
  - For instance, two different roots may share the same meaning, such as *dermatos* (Greek) and *cutane* (Latin), both referring to the skin.
  - **Greek roots** are used for building up the words that describe a disease, condition, treatment, or diagnosis.
  - **Latin roots** are used to build up words that describe anatomical structures.

Components of Medical Terms

Prefix	Root word	Suffix
Added to the beginning of a root word to modify its meaning	The **core of the term**, often representing a body part or system	Added to the end of a root word to indicate a procedure, condition, or disease
Usually indicates a number, time, position, direction, or negation, absence	All terms have one or more word root	All terms must have a suffix
↓	↓	↓
Peri-	**Cardi-**	**-itis**
Pericarditis		

Components of Medical Terms

❖**Are all components required to be present in every term?**

- All terms must include at least one root word and a suffix.
- A prefix is not always necessary when creating a medical term.

❖**There are 3 basic rules to link between root words and the suffix.**

- When adding a suffix to a root word we look at the first letter of the suffix
  - If it was a vowel we links them directly e.g., Cardi- + -itis = Carditis
  - If it was a consonant we add the combining vowel "**o**" Cardi + pathy = Cardiopathy
- When linking 2 root words we always add the combining vowel "**o**" between them e.g., Cardi- + Vascul- + ar = Cardiovascular
- When adding a prefix to a term, it is linked directly to the root word without adding the combining vowel "**o**" e.g., Peri + Carditis = Pericarditis

Root word examples

English	Greek	Latin
Mouth	Stomat-	Or-
Skin	Dermat-	Cutane-
Kidney	Nephr-	Ren-
Heart	Cardi-	Cardi-
Bone	Oste-	Osse-
Joint	Arthr-	Chondr-
Stomach	Gastr-	-
Liver	Hepat-	-

Note 1: Root word + Combining vowel = Combining form, e.g., gastr/o

Note 2: The combing vowel has no meaning of its own

Suffix examples

Suffix	Meaning	Suffix	Meaning
-scope	instrument to view	-algia	Pain
-rrhea	excessive flow or discharge	-uria	Urine, urination
-stenosis	narrowing, stricture	-emia	blood
-rrhexis	rupture	-edema	swelling
-toxic	poison	-osis	abnormal condition
-pathy	disease	-ectomy	Excision
-megaly	enlargment	-itis	inflammation
Note 1: All the following suffixes begin with a consonant, therefore a combining vowel must be used between the word root and the suffix		**Note 2**: All the following suffixes begin with a vowel, therefore a combining vowel is NOT used between the word root and the suffix	

Prefix examples

Prefix	Meaning	Prefix	Meaning	Prefix	Meaning	Prefix	Meaning
Uni; Mono	1	Multi-	Many	Epi-	Above	Dys-	Painful
Di- & B-	2	Hemi-	Half	Hypo-	Bellow; Low	Brady-	Slow
Tri-	3	Micro-	Small	Hyper-	High	Tachy-	Fast
Terta-	4	Macro-	Large	Eu-	Normal	Ab-	Away from
Penta-	5	Pre-	Before	Homo-	Same	Ad-	Toward
Hexa-	6	Post-	After	Hetero-	Different	Poly-	A lot
Hepta-	7	Intra-	Within	Endo-	Inside	Oligo-	Few
Octa-	8	Inter-	Between	Ecto-	Outside	A-; An-	Not
Nona-	9	Retro-	Behind	Para-	Beside	Anti-	Against
Deca-	10	Circum-	Around	Peri-	Around		

Changing From Singular To Plural

- Formed by adding or substituting another vowel or syllable at the end of a word (i.e. modifying the suffix.)
- **Examples**
  - macula → maculae
  - diagnosis → diagnoses
  - appendix → appendices
  - phalanx → phalanges
  - adenoma → adenomata
  - spermatozoon → spermatozoa
  - ovum → ova
  - glomerulus → glomeruli
  - biopsy → biopsies

Rule		Example	
Singular	Plural	Singular	Plural
-a	Retain *a* and add *e*.	pleur*a*	pleur*ae*
-ax	Drop *x* and add *ces*.	thor*ax*	thor*aces*
-en	Drop *en* and add *ina*.	lum*en*	lum*ina*
-is	Drop *is* and add *es*.	diagnos*is*	diagnos*es*
-ix	Drop *ix* and add *ices*.	append*ix*	append*ices*
-ex	Drop *ex* and add *ices*.	ap*ex*	ap*ices*
-ma	Retain *ma* and add *ta*.	carcino*ma*	carcinoma*ta*
-on	Drop *on* and add *a*.	ganglio*n*	ganglio*a*
-um	Drop *um* and add *a*.	bacteri*um*	bacteri*a*
-us	Drop *us* and add *i*.	bronch*us*	bronch*i*
-y	Drop *y* and add *ies*.	deformit*y*	deformit*ies*

Eponyms

- **Eponyms** are medical terms derived from the name of a person.
- Many procedures and tests are also named after the person who invented or perfected them.

Examples of diseases	Examples of body parts	Examples of tools
• Addison's disease • Alzheimer's disease • Cushing's syndrome • Parkinson's disease • Stokes-Adam's syndrome	• Bowman capsules • Wernicke's center or area • Cowper's glands	• Foley's catheter • Hegar dilators • Hasson's trocar

Acronyms

- **Acronyms** are medical **abbreviations**. They are used very frequently in medicine. They boost efficiency as long as they are used intelligently.
- **Examples**
  - ACE → (angiotensin converting enzyme)
  - ACTH → (adrenocorticotropic hormone)
  - AIDS → (acquired immune deficiency syndrome)
  - HDL → (high density lipoprotein)
  - Hx → (history)
  - MI → (myocardial infarction)
  - RBC → (red blood cells)
  - RBBB → (right bundle branch block)
  - TB → (tuberculosis)
  - ADH → (anti-diuretic hormone)