

Medical Terminology

Lectures 1: Introduction

by

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Syllabus of Medical Terminology

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|-----|--|-------------|
| 1. | Introduction to Terminology | 1h (Direct) |
| 2. | General terminology (prefix) | 2h (Direct) |
| 3. | General terminology (Suffix) | 1h (Direct) |
| 4. | General Terminology (Roots) | 1h (Direct) |
| 5. | Systemic terminology: CVS & CNS | 1h (Direct) |
| 6. | Systemic terminology: GIT | 1h (Direct) |
| 7. | Systemic terminology: Endocrine system | 1h (Direct) |
| 8. | Systemic terminology: Respiratory system | 1h (Direct) |
| 9. | Systemic terminology: Reproductive systems | 1h (Direct) |
| 10. | Systemic terminology: Musculoskeletal system | 1h (Direct) |
| 11. | Disciplinary terminology | 1h (Direct) |
| 12. | Abbreviations | 1h (Direct) |

References

- ▶ Lecture handout by authors
- ▶ Study Guide Medical Terminology by Thea Liza Batan, 2017, PENN FOSTER, INC;
- ▶ PDF Presentations of the Lectures on line

Evaluation:

▶ 10 Marks: Quizzes + Assessments + Interactive learning	10 %
▶ 15 Marks (Mid term)	15 %
▶ 75 Marks (final Exam)	75 %
Total	100 %

General Terminology:

A– Introduction to Terminology

B– General Suffixes

C– General Prefixes

Course ILOs

After completion of the course student will be able to:

1. Analyze and pronounce the different components of the medical terms (Affixes and roots).
2. Recognize how to read a medical term and utilize it.
3. Identify different affixes (prefixes and suffixes) and different roots of various body systems Know the meanings per se or in terms.
4. Communicate effectively and present a topic of interest using recent technologies with professional health care team, patients and communities.
5. Present a project about different terms encountered in certain medical fields (surgery, anatomy, cardiology, internal medicine, nephrology, psychology, etc.)

A- INTRODUCTION

Objectives

When you complete this section, you'll be able to identify word parts and write medical terms properly.

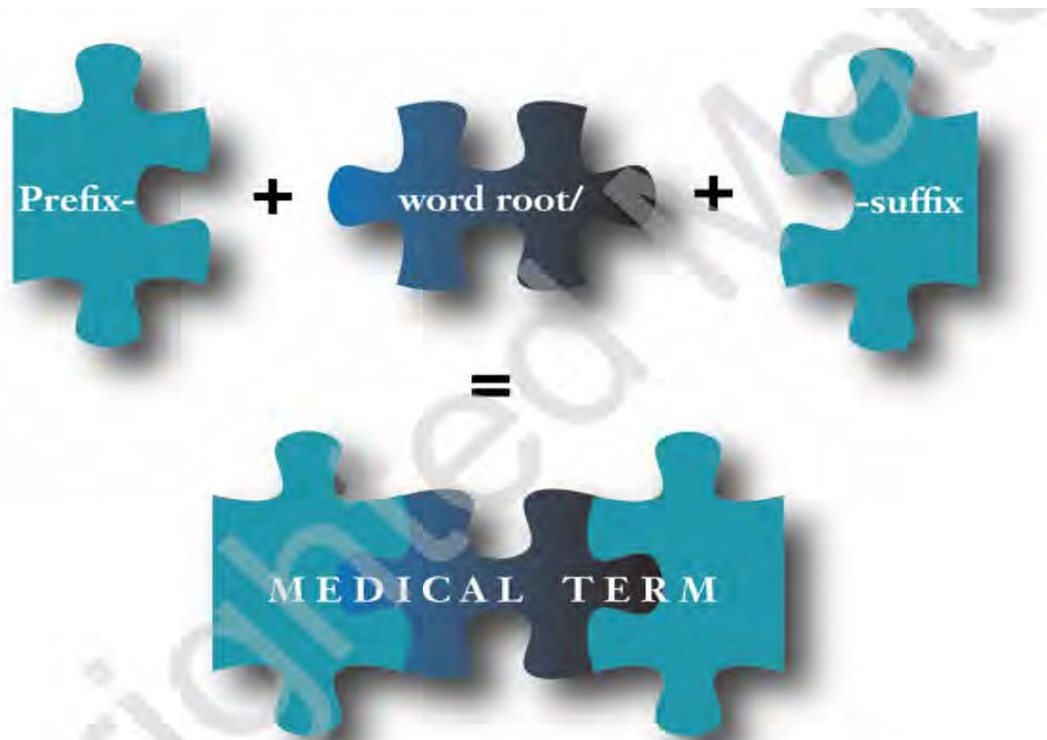


FIGURE 1.1. Basic elements of a medical term.

Prefix and suffix

Prefix + Combining form + Suffix

electro + cardi/o + gram

(electrocardiogram)

Prefix + Suffix

hyper + emia

(hyperemia)

1. Root (Stem)

- ▶ **Basic medical word** (foundation of the term), usually a **body part or organ**.
- ▶ Derived from **Greek** or **Latin** words.
- ▶ For example, "erythro**cyte**" means "red cell".
 - The root is "**cyte**" cell
 - "Erythr-" is the prefix
 - The term erythrocyte means "red cell",

Examples:

Root	Term	Root's Meaning	Term Meaning
"Gastr" stomach	Gastritis	Stomach.	Inflammation of
"Hemat"	Hematology	Blood.	Science of the blood
"Card"–	Carditis	Heart.	Inflammation of the heart
"Cyte"	Erythrocyte	Cell	Red cells.

2. Suffix

- ▶ The word ending of the term.
- ▶ Usually follow the word root.
- ▶ Added to modify the meaning of the root.

Term	Root	Suffix	Meaning
Arthralgia Neuralgia myalgia	Arthr-	-algia	Pain of the Joint.
Hepatitis	Hepat-	-itis	Inflammation of the liver.

3. Prefix

- ▶ The word beginning of the term.
- ▶ Usually precedes the root.
- ▶ Modify the meaning of the root.

Term	Root	Prefix	Term Meaning
Antepartum Postpartum	Partum Partum	Ante- Post-	- Before delivery - After delivery
pericarditis	Card-	Peri-	Inflammation in the surrounding of the heart

Combining vowel and combining forms

- ▶ Combining vowel letter are “a, e, i, o, u or y” are added to facilitate pronunciation of the term.
- ▶ The usually used combining vowel is “o”. But occasional “a” and “e” are used.
- ▶ Combining vowel is used to connect the root with the suffix or with other root, but not used between prefix and root.
- ▶ Not used when connecting roots with suffixes beginning with “a, e, i, o, u”

▶ Example:

- Adenoma: aden-o-ma: Tumor of the gland
Aden/o- is a combining form, “O” is vowel.
- Therm-o-meter: instrument used to measure temperature.
Therm/o: is a combining form, “O” is vowel.

How to read a term?

- ▶ Read the meaning of the term starting from the **suffix** back to the beginning of the term and across.
- ▶ Divide or analyze the term into parts to know the meaning easily.
- ▶ **Example:**
 - **Hemat /o/ logy:** science of the blood
 - **Gastr/o/enter/itis:** inflammation of the stomach and intestine.

• OTORHINOLARYNGOLOGY

	Ot/o/rhin/o/laryng/o/logy
Ot/o	combining form means ear
rhin/o	combining form means nose
laryng/o	combining form means larynx or throat
-logy	suffix means the study of

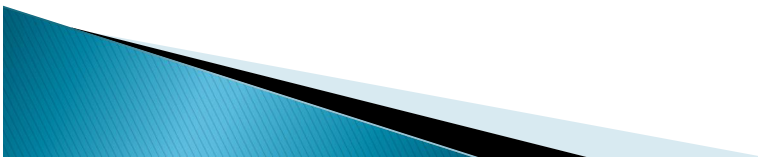
Meaning: The study of diseases of the ear, nose, and throat

This long term is often referred to as **ENT** (ears, nose, and throat).



FIGURE 1.7. Analysis of medical term "otorhinolaryngology".

B– GENERAL AFFIXES



1. Leuko- or leuco-: means white, *Prefix*

- e.g. **leukocytes**: means white cells,
- e.g., **leukemia**: is cancer of leucocytes (cancer of white blood cells)

2. Erythro-, eryth-: means red

- e.g. **erythrocyte**: means red cell,
- e.g., **erythema**: means redness.

3. Cyan-: means blue

e.g. **cyanosis**: means blue color of the skin.

Cyanopsia: The eyes see all objects blue after cataract extraction.

4. Melan-: means black

e.g. **melanoma**: means a black tumor,

e.g., **melanocyte**: the cell that secretes the black pigment melanin.

e.g., **Melena**: Dark black stool (due to GI bleeding, GI Cancer)

5. Polio-: means gray, Prefixes

e.g. **poliomyelitis**: means inflammation of gray matter in the brain.

6. Cirrho-: means yellow

e.g. **cirrhotic**: means yellowish (fibrotic).

7. Glauco-: means gray

e.g. **glaucoma**: means increased intra-ocular pressure.

Suffixes

9. -oid : resemblance to, like or similar

e.g., **Opioid**: Morphine-like drugs

e.g., **Lymphoid**: resembling lymph or lymphatic tissue.

e.g., **Rheumatoid**: symptoms of a disease resembling rheumatism

10. -oma: tumor

e.g., **Lipoma**: lipid tumor

11. -lysin: an agent that cause breakdown of cells.

-lysis: decomposition

e.g., Fibrinol**ysin**: an agent like enzyme that cause breakdown of fibrin clot (e.g., streptokinase).

e.g., Haemo**lysis**: decomposition of the haeme (blood).

12) -trophic: food, nutrition

Atrophy: a wasting of tissue, organ or the entire body.

e.g., Trophocyte: a cell that supplies nourishment.

e.g., Gonado**trophic cells**: cells that supply the gonads with gonadotropic hormones e.g., FSH and LH.

e.g., Disuse atrophy: muscle wasting caused by immobilization, such as in casting.

e.g., Senile atrophy: wasting of tissue and organs with advancing age from decrease anabolic processes, decreased use, or ischemia.

N.B. Trophocyte and atrophy are full terms not suffixes.

13) -plasia: formation (especially for cells) or development

e.g., neoplasia: formation of neoplasm (tumor; both benign and malignant tumors).

e.g., aplasia: defective development of organ or tissue due to genetic factors.

14) -aemia: pertaining to the blood

e.g., Anemia: deficiency of certain cells in the blood.

e.g., Hyperbilirubinemia : An increased concentration of bilirubin in the blood.

e.g., hypovolemia: A state of decreased blood volume.

15) -itis: inflammation of

e.g., Osteoarthritis: inflammation of the joints and bone.

e.g., Appendicitis: inflammation of the appendix.

e.g., Parotitis: inflammation of the parotid gland.

e.g., Pancreatitis: inflammation of the pancreas.

Self Answer MCQ

1. Which of the following terms contains a word part that means yellow?

- a) Chloropia
- b) Cyanotic
- c) Melancholy
- d) Cirrhosis.

2. A lipoma is:

- a) the breakdown of lipids in digestion
- b) a benign tumor composed of fatty tissue.
- c) surgical crushing of a stone
- d) an ectopic pregnancy

3. A lipolysis:

- a) the breakdown of lipids.
- b) a benign tumor composed of fatty tissue
- c) surgical crushing of a stone
- d) an ectopic pregnancy

Self Answer Questions

4. Analyse the following terms into their roots and affixes:

Terms	Roots	Affixes
– Intercostal:	Cost	inter- -al
– Oligospermia:	-----	-----
– Cardiomegaly:		

5. MCQs:

1. Hyper-:

- a) above normal
- b) over
- c) excessive
- d) All of the above

2. -penia:

- a) rise
- b) high
- c) decrease
- d) increase

3. Ophthalmos- means:

- a) eye
- b) throat
- c) nose
- d) ear

MCQ Exercises

1) **anti-:**

- a) agonist b) against c) before d) curative

2) **ante-:**

- a) not b) before c) after d) against

3) **hypo:**

- a) below normal c) excessive
b) above normal d) deficient

4) **inter-:**

- a) between b) inside c) outside d) both sides

5) **oligo-:**

- d) few c) slow b) little a) oily

6. **extra-:**

- a) inside b) outside c) above d) below

8. **brady-:**

- a) few b) little c) slow d) rapid