



Introduction to Medical Terminology (Part II)

By

Assist. Prof. Dr Dler Gallaly

PhD in Medical Physiology

Dept. of Physiotherapy
College of Applied Sciences
Tishk International University
Erbil, Iraq.
2023 / 2024

Mob.#: (+964) 750 461 87 58

Email: dler.qader@tiu.edu.iq



Contents

■ Definitions:

- Analyzing,
- Building, and
- Defining.



■ The importance of:

- Correct pronunciation of medical terms.
 - Correct spelling of medical terms.
 - Medical dictionaries.
 - Using abbreviations.
- The rules for determining singular and plural endings.
- Silent letters and unusual pronunciations.

Objectives:

After finishing this lecture, you should be able to:

- Analyze, Build, and Define medical terms.
- State the correct pronunciation of medical terms.
- State the correct spelling of medical terms.
- State the rules for determining singular and plural endings.
- Discuss the importance of using abbreviations.
- State some silent letters and unusual pronunciations.
- Know the importance of medical dictionaries.

Analyzing, Building and Defining the Medical Terms:

- **Analyzing:** dividing medical terms into word parts, then labeling each word part and combining form
- **Building:** placing word parts together to form terms.
- **Defining:** applying the meaning of each word part contained in the medical term to derive its meaning.

Analyzing Medical Term to its Word Parts:

- There are three steps to analyze medical terms:

1. Divide the term into word parts with slashes:

Oste/o/arthr/o pathy

2. Label each word part:

Oste/o/arthr/o pathy

WR /CV WR /CV S

3. Label each combining form. Underline the word root and combining vowel, then write CF below the combining form.

Oste/o/arthr/o pathy

CF CF S

Analyzing medical terms: Examples:

	<u>P</u>	<u>WR</u>	<u>CV</u>	<u>S</u>
Arthritis		Arthr		-it is
Hepatopathy		Hepat	o	-pathy
Subhepatic	Sub-	hepat		-ic
Intravenous	Intra-	ven		-ous
Arthropathy		Arthr	o	-pathy
Osteitis		Oste		-it is
Cardiomegaly		Cardi	o	-megaly

Building Medical Terms:

- To build medical terms, place word parts together to form terms.
- Keep in mind that the beginning of the definition usually indicates the suffix.
- Build the medical term for **disease of a joint**.
 1. Find the word part for *disease* (pathy)
 2. Find the word part for *joint* (arthr)
 3. Insert the combining vowel (o). (a CV is needed because the suffix does not begin with a vowel).

WR / CV / S

Arthr o pathy

Building Medical Terms: Examples:

<u>P</u>	<u>CF</u>	<u>S</u>	
	Arthr/o	-it is	Arthritis
	Hepat/o	-pathy	Hepatopathy
Sub-	hepat/o	-ic	Subhepatic
Intra-	ven/o	-ous	Intravenous
	Arthr/o	-pathy	Arthropathy
	Oste/o	-it is	Osteitis
	Cardi/o	-megaly	Cardiomegaly

Defining (Meaning of) Medical Terms:

- To define medical terms, apply the meaning of each word part contained in the term. (example: **oste/o/arthr/o/pathy**)
 1. Begin by defining the suffix, **-pathy** (disease)
 2. Move to the beginning of the term; define the word roots **oste** and **arthr** (bone and joint)
 3. Write the definitions **disease of the bone and joint**.
- Most medical terms built from word parts can be defined by beginning with the meaning of the suffix; however, **this does not always apply**.

Defining Medical Terms: Examples:

<u>Medical Term</u>	<u>Meaning (Definition)</u>
1. Arthritis	inflammation of a joint
2. Hepatopathy	disease of the liver
3. Subhepatic	pertaining to under the liver
4. Intravenous	pertaining to within the vein
5. Arthropathy	disease of a joint
6. Osteitis	inflammation of the bone
7. Cardiomegaly	enlargement of the heart

Pronunciation:

- Pronunciations may vary from country to country and even in different regions of the same country.
- The general rule is to use the most common pronunciation or to list that pronunciation first if more than one is given.

Examples:

- ✓ The word *gynecology* → hard **g** in the US,
but in many areas, a soft **g** is used, as in **jin-e-KOL-ō-jē**.
- ✓ Duodenum → **dū-ō-DĒ-num** or **dū-O-de-num** is accepted.
- ✓ *SKEL-e-tal* → **ske-LE-tal**.

Pronunciation:

- You may hear different pronunciations for the same terms depending on where a person was born or educated.
- As long as it is clear which term people are discussing, differing pronunciations are acceptable.
- Some people are difficult to understand over the telephone or on a transcription tape.
- If you have any doubt about a term being discussed, ask for the term to be spelled.

Pronunciation:

- For example, it is often difficult to hear the difference between the terms **abduction** and **adduction**.

Abduction [ab-duk'shun]

Adduction [ah-duk'shun]



- However, since the terms refer to opposite directions of movement, it is very important to double-check if there is any question about which term is being used.

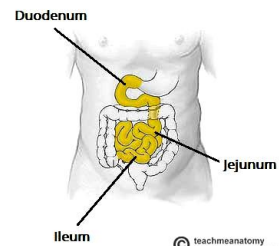
Spelling:

- Although you may hear differing pronunciations of the same term, there is only one correct spelling.
- If you have any doubt about the spelling of a term or of its meaning, always look it up in a medical dictionary.
- If only one letter of the word is changed, it can make a critical difference for the patient.

For example,

ileum, or small intestine

ilium, or hipbone.



© teachmeanatomy

Spelling:

- Some words have the same beginning sounds but are spelled differently. **Examples include:**

Sounds like /si/

Psy Psychology (sai-ko-luh-jee)

Cy Cytology (sai-to-luh-jee)

Sounds like /dis/

Dys Dyspepsia (dis-pep-see-ah)

Dis Dislocation (dis-loh-kay-shun)

Singular to Plural Ending:

- Many medical terms originate from Greek and Latin words.
- The rules for forming the singular and plural forms of some words follow the rules of these languages rather than English.

Singular	Plural	
atrium	atria (2 atria)	not 2 atriums
vertebra	Vertebrae (2 vertebrae)	not 2 vertebras

Singular to Plural Ending:

WORDS ENDING IN	SINGULAR	PLURAL
-a	vertebra	vertebrae
-ax	thorax	thoraces
-ex or -ix	appendix	appendices
-is	metastasis	metastases
	epididymis	epididymides
-ma	sarcoma	sarcomata
-nx	phalanx	phalanges
-on	ganglion	ganglia
-um	ovum	ova
-us	nucleus	nuclei
-y	biopsy	biopsies

Singular to Plural Ending:

- If you have any concern that you will confuse someone by using an abbreviation, **spell out the word instead.**
- It is **never acceptable** to use made-up abbreviations.
- All types of healthcare facilities will have a list of approved **abbreviations**, and it is extremely important that you become familiar with this list and follow it closely.

Abbreviations:

- An abbreviation is typically a shortened form of words used to represent the whole (such as Prof.).
- Abbreviations are commonly used in the medical profession as a way of saving time.
- However, some abbreviations can be **confusing**: such as **SM** for simple mastectomy and **sm** for small.
- Using incorrect abbreviations can result in problems for a patient, as well as with insurance records and processing.

Abbreviations:

- **Shortened words or initials can save time in writing medical reports and case histories.**
- **A few of the many medical abbreviations are:**
 - ✓ **Sx** for symptoms
 - ✓ **Rx** for drug prescription
 - ✓ **Ax** for assess/assessment
 - ✓ **Dx** for diagnosis/diagnosed

Abbreviations:

- **Shortened words or initials can save time in writing medical reports and case histories.**
- **A few of the many medical abbreviations are:**
 - ✓ **ECG** for Electrocardio -gram (or -ph or -phy).
 - ✓ **EMG** for Electromyo -gram (or -ph or -phy).
 - ✓ **Jt.** for Joint
 - ✓ **Jr.** for Junior
 - ✓ **MRI** for Magnetic Resonance Imaging

Abbreviations:

- **Shortened words or initials can save time in writing medical reports and case histories.**
- **A few of the many medical PT abbreviations are:**
 - ✓ **PT** for Physiotherapy or Physiotherapist (Physical Therapist)
 - ✓ **PTA** for Physiotherapist assistant
 - ✓ **BPT** for Bachelor of PT
 - ✓ **MPT** for Master of PT
 - ✓ **DPT** for Doctor of PT

Abbreviations:

- **Shortened words or initials can save time in writing medical reports and case histories.**
- **A few of the many medical PT abbreviations are:**
 - ✓ **LBP** for Low Back Pain
 - ✓ **CP** for Cerebral Palsy
 - ✓ **ACL** for Anterior Cruciate Ligament
 - ✓ **ABD** for abduction
 - ✓ **ADD** for adduction
 - ✓ **ACJ** for Acromioclavicular Joint
 - ✓ **TENS** for Tanscutaneous Electrical Nerve Stimulation
 - ✓ **AD** for assistive device.



Phrase Abbreviations (Acronyms):

- **Acronyms** are terms formed from the first letter of words in a phrase that can be spoken as a whole word and usually contains a vowel.

Examples:

- **AIDS:** **A**cquired **I**mmune **D**eficiency **S**yndrome
- **LASER:** **L**ight **A**mplification by **S**timulated **E**mission of **R**adiation
- **COVID-19:** **C**oronavirus **D**isease **2019**
- **SARS:** **S**evere **A**cute **R**espiratory **S**yndrome

Silent letters and unusual pronunciation:

- A **Silent Letter** or unusual pronunciation can be a problem, especially if it appears at the start of a word that you are trying to look up in the dictionary.
- **P**psychology
- **P**pseudo-
- **E**eumelanin
- **P**physiology
- **X**xerostoma



Silent letters and unusual:

LETTER(S)	PRONUNCIATION	EXAMPLE	DEFINITION OF EXAMPLE
ch	k	chemical <i>KEM-i-kal</i>	pertaining to the elements and their interactions (root <i>chem/o</i> means "chemical")
dys	dis	dysfunction <i>dis-FUNK-shun</i>	difficult or abnormal (dys-) function
eu	u	euphoria <i>ū-FOR-ē-a</i>	exaggerated feeling of well-being (<i>eu-</i> means "true" or "good")
gn	n	gnathic <i>NATH-ik</i>	pertaining to the jaw (gnath/o)
ph	f	phantom <i>FAN-tom</i>	illusion or imaginary image
pn	n	pneumonia <i>nū-MŌ-nē-a</i>	inflammation of the lungs (pneumon/o)
ps	s	pseudonym <i>SŪ-dō-nim</i>	false name (-nym)
pt	t	ptosis <i>TŌ-sis</i>	dropping, downward displacement
rh	r	rhinoplasty <i>RĪ-nō-plas-tē</i>	plastic repair of the nose (rhin/o)
x	z	xiphoid <i>Zī-foy-d</i>	pertaining to cartilage attached to the sternum (from Greek <i>xiphos</i> , meaning "sword")

Symbols:

- Symbols are commonly used as shorthand in case histories.

- **Examples:**

- ✓ **Lt.** and **Rt.** for left and right



- ✓ ↑ and ↓ for increase and decrease.



- ✓ **Rx** (℞) for a medical prescription.



- Symbols and abbreviations can save time, **but they can also cause confusion if they are not universally understood.**

Medical Dictionaries:

- Specialized dictionaries covering terms used in the health professions by doctors, nurses, and others involved in healthcare services.

- **Dictionaries give information on:**

- ✓ meanings,
- ✓ pronunciation,
- ✓ synonyms,
- ✓ derivations, and
- ✓ related terms.

Medical Dictionaries:

- In addition to information on individual terms and phrases, medical dictionaries have useful appendices on **measurements, clinical tests, drugs, diagnosis, body structure, information resources**, and other topics.
- Many of these dictionaries are also available on **CD, on the internet**, and also as **applications** for smartphones.



Questions and Comments:



Singular to Plural Ending:

Change the following singular terms to plural terms

- 1. Metastasis _____
- 2. Deformity _____
- 3. Therapy _____
- 4. Carcinoma _____
- 5. Appendix _____
- 6. Arthrosis _____
- 7. Digitus _____
- 8. Arthritis _____



Suffix Practice:

- Fill in the blank in the term's definition with the meaning of that suffix.

Osteochondritis	inflammation ofand
Gastralgia	stomach
Hyperkinesia of muscles of the body
Myalgia in a muscle or group of muscles.
Costal	pertaining to the
Cervical	Pertaining to the



Matching:

- **dividing** medical terms into word parts, then labeling each word part and combining form.
- applying the **meaning** of each word part contained in the medical term to derive its meaning.
- placing word parts together to **form terms**.

Building:

Analyzing:

Defining:



Building and Analyzing Medical Terms:

Example:

disease of a joint

_____	arthr	/	o	/	pathy
	WR		CV		S

1. inflammation of a joint	_____ WR / S
2. pertaining to the liver	_____ WR / S
3. pertaining to under the liver	_____ P / WR / S
4. pertaining to within the vein	_____

Building and Analyzing Medical Terms:

5. inflammation of the bone	
6. inflammation of the liver	
7. disease of the bone and joint	
8. enlargement of the liver	

Some Medical Terminology Video's links:

The History of Physiotherapy	https://www.youtube.com/watch?v=tUS_4kc0GjY
What Is Physical Therapy? Definition, Purpose, and Uses	https://www.youtube.com/watch?v=To9VzfdWYtc
Physiotherapy - What Is Physiotherapy All About (2020)	https://www.youtube.com/watch?v=RvO5ymkRGic
What is Physiotherapy?	https://www.youtube.com/watch?v=rvpZJPZu6NKg
Anatomical Position and Directional Terms [Anatomy MADE EASY]	https://www.youtube.com/watch?v=t6-ueqFK1IE
مصطلحات مفيدة لطلبة علاج طبيعي physiotherapy terminology glossary	https://www.youtube.com/watch?v=B4k_g1xa10o
EASYTRICKS for Anatomical Body Planes and Sections [Direction/Position]	https://www.youtube.com/watch?v=iQB7baJA9wY
Body Planes and Sections: Frontal, Sagittal, Oblique, Transverse	https://www.youtube.com/watch?v=0EjKfLrEwB
Physiotherapy EDUCATION	http://youtube.com/watch?v=jFMhjBCfHbE
Physiotherapy Treatment - Types, Importance and Uses	http://youtube.com/watch?v=FF4BNiB8yQ