

## THE IMPORTANCE OF WORD AFFIXES IN MEDICAL TERMS

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### Abstract

This study investigates the importance of word affixes in forming the medical terms by defines the Medical Terminology (MT) and its characteristics showing how the Medical vocabulary is consistent and uniform throughout the world since it is based on Greek and Latin languages , therefore; medical terms can be divided into three groups. The first group, are the medical words which have been derived from the Greek language only e.g. the Greek word (kardia) is a root = cardi= heart. The second group, are the medical words which have been derived from the Latin language only e.g. the Latin word (pulmo) is a root = lung. The third group, are the medical words which have been derived from both Greek and Latin languages. e.g. Greek + Latin roots = nepher (Greek), ren (Latin) = kidney. The Medical vocabulary is vast, and learning it may seem like learning the entire vocabulary of a foreign language , like the jargon that arises in all changing fields, it is always expanding : e.g.: terms with the development of computers, such as software, megabyte, e-mail ...etc. So, by learning these meanings, we can analyze and remember many words. Moreover, the study shows the great role that word affixes play in modifying the meaning or changing the pronunciation or even the grammatical functions of the medical terms.

**Keywords:** Medical terminology; word parts; root; prefix; suffix

### 1. WHAT IS MEDICAL TERMINOLOGY (MT)?

Medical Terminology is a special vocabulary used by health care professionals for effective and accurate communication. Medical Terminology is consistent and uniform throughout the world since it is based on Greek and Latin words. Medical Terms often reduce an entire phrase to a single word; although some of them are along, therefore medical terminology is efficient. E.g. **gastroduodenostomy** stands for (a communication between the stomach and the 1<sup>st</sup> part of the small intestine). The Medical vocabulary is vast, and learning it may seem like learning the entire vocabulary of a foreign language , like the jargon that arises in all changing fields, it is always expanding : e.g.: terms with the development of computers, such as software, megabyte, e-mail, search engine , chat room , Facebook, Instagram, YouTube.. etc.

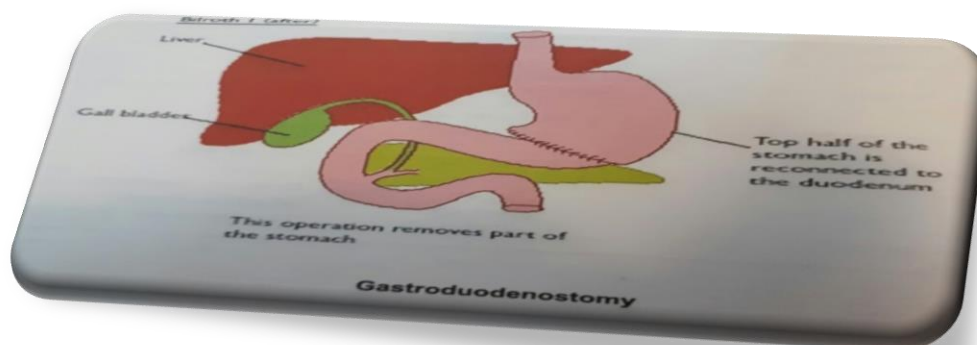


Figure 1

## 2. WORD PARTS

Most medical terms can be divided into component parts: (Roots, Prefixes, and Suffixes ) that maintain the same meaning whenever they appear .

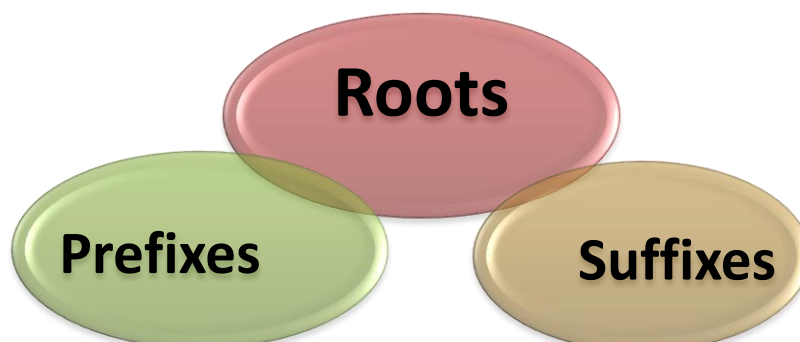


Figure 2

1- **ROOT:** is the fundamental unit of each medical word which establishes the basic meaning of the word. It is the part to which modifying **prefixes and suffixes** are added.

**Examples for a Root:**

**Learn (v.) :** يتعلم

**gnath/o :** خاص بالفك أو اللحي

**labi/o :** متعلق بالشفاه والأسنان

**colon:** قولون

**odont/o :** تتعلق بأمراض حول السن أو الأسنان

2-A **PREFIX:** is a short word part added before a root to modify its meaning. There is a dash after the prefix such as **re-,pre-, pro- and per-**.

**Examples for a Prefix:**

**relearn :** إعادة التعلم

**predict:** يتنبأ

**preauricular:** أمام صيوان الأذن

**prognathous:** بارز الفك

**periodontist:** طبيب أسنان يعالج ماحول السن و أمراضه

**megacolon :** تضخم القولون

3-A **SUFFIX:** is a short word part or series of parts added at the end of a root to modify its meaning. There is a dash before the suffix such as **-itis , -er , -ous , -denatl , -ist**

**Examples for a Suffix:**

**neuritis:** إلتهاب العصب

**Learner (n.):** متعلم

**prognathous:** بارز الفك

**labiodental:** متعلق بالشفاه والأسنان

**periodontist:** طبيب أسنان يعالج ماحول السن و أمراضه

Both Prefixes & Suffixes can change the meaning of the word. Sometimes both of the prefixes & suffixes can change the pronunciation of the medical term e.g. **gnath/o = prognathous**. Also, they can change the grammatical function of the word e.g. Learn (v.) = Learner (n.). Therefore one can say that Word parts are like parts of a puzzle.

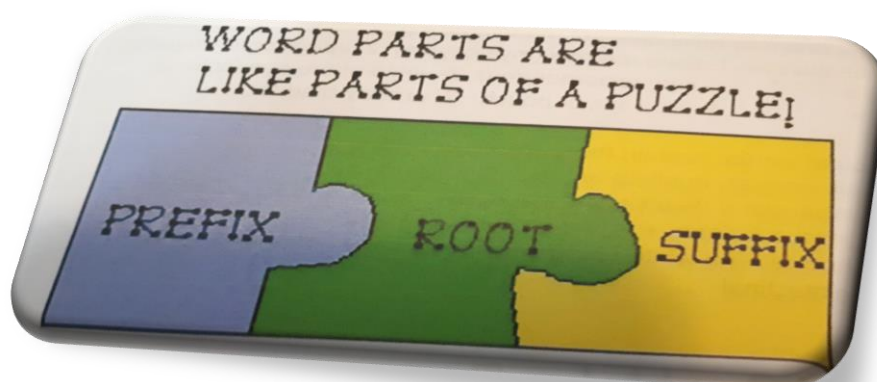


Figure 3

### 3. TYPES OF WORDS

There are two types of words: Simple words and Compound words.

1. **Simple Words:** are the words which contain only one root. E.g. The simple word (learn): - **er**: learner, **re-** : **re**learn. It's important to note that not all the roots are complete words , in that most medical roots are derived from other languages and used in combinations such as :

- **Greek word (kardia)** is a root = **cardi**= **heart**.
- **Latin word (pulmo)** is a root = **lung**.
- **Both Greek + Latin roots = nepher (Greek), ren (Latin) = kidney.** Moreover, the same root may have different meanings: E.g.
- **myel= marrow : 1- bone marrow (myelocytes) 2- spinal cord (myelitis).**
- **scler= : 1- hard (scleroderma) 2- white of the eye (sclera).**

- **cyst = : 1- filled sac or pouch 2- urinary bladder .**

2. **Compound Words:** are the words which contain more than one root.E.g.:

- **Eyeball, bedpan, frostbite and wheelchair.**
- **Cardiovascular= (heart+blood vessels).**
- **Urogenital= (urinary+ reproductive systems).**
- **Lymphocyte = (a white blood cell found in the lymphatic system).**
  - **Gastrointestinal.**

### 4. WORD COMBINING FORMS

According to the following standards, word parts of the combining forms are:

1- Root + O + Suffix = Combining Forms. e.g.:

**Neurology:**

**Root + O + Suffix = Combining Forms**

**Neur + O +logy = Neurology**

**Psychology:**

**Root + O + Suffix = Combining Forms**

### Psych (mind) + O + logy (study of) = Psychology

Also, another example **Rhinoplasty** which means the plastic surgery to repair postfracture deformity of nose:

#### Rhinoplasty:

#### Root + O + Suffix = Combining Forms

#### Rhin + O + plasty = Rhinoplasty

2- Root + Suffix Combining Forms. e.g. :

#### Neuritis:

#### Root + Suffix= Combining Forms

#### Neur + itis = Neuritis

## 5- WORD DERIVATIONS

Greek (G) and Latin (L) are the main two languages that most medical word parts come from. E.g. the word **Muscle** has come from the Latin word which means **mouse= muscle movement under the skin**. Another example, the word **Coccyx** which has come from Greek and it means **the end of the spine=cuckoo=resembles the cuckoo's bill**.

## 6-WORDS ENDINGS IN X:

As for the words ending in x, the x will be omitted when adding the suffix to the end of the root of the word as in the following examples:

**X** in pharynx (throat) + Suffix→**g** : Pharynx → pharyngeal

**X** in coccyx + Suffix→**g** : coccyx → coccygeal

**X** in thorax (chest) + Suffix →**C** : thorax → thoracotomy

## 7- SUFFIXES BEGINNING WITH RH:

In this case the (r) will be doubled and it will separate between the root and the suffix that begins with rh as in the following examples:

**r**→**rr** as in : rhage : hem/o (blood)+rhage →hemorrhage

**r**→**rr** as in : rhea : men/o ( menses) +rhea → menorrhea

**r**→**rr** as in : rhea : dia -(through)+ rhea (flow) →diarrhea

## CONCLUSION

Affixes play a great role in forming the English words, especially, medical terms. Both Prefixes & Suffixes can change and modify the meaning of the word. In addition to that, both of them can change the pronunciation of the medical term e.g. the (g) in the root gnath/o is silent, but when the prefix (pro) added to the beginning of the root gnath/o and the suffix (ous) added to the end of the root; the (g) will be pronounced as hard g=/η/ **prognathous**. Also, they can change the grammatical function of the word, e.g. the root Learn (v.) will be changed to Learner (n.) when the suffix (er) added to the end of the root. According to this, the grammatical state will be changed from verb into noun.

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