

# **Medical Terminology**

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# Medical Terminology

Most Medical Terms come from  
Greek ( Diagnosis & Surgery )  
Latin Language (Anatomical terms )

# Example Term

## Root

**Greek( G ) Word & Latin( L ) Word**

**Dermatos G**

**Nephros G**

**Stoma G**

**Cutis L**

**Oris L**

**Renes L**

**MT:**

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All MT have

A. Suffix

B. Prefix

C. Root

D. Vowel

# Med Term

- The Root in pericarditis is
  - A . –itis
  - B. Peri -
  - C . Card

# Medical Term

The suffix in Physiology is ;

- A. Logy
- B. physi-
- C. O

# Divide into components word parts

MT	Root	Combining Vowel	Suffix
Cardiology	Cardi	O	logy
Biology	Bi	O	logy
Mammogram	Mamm	O	gram
Bronchoscopy	Bronch	O	scopy
Arthritis	Arthr		itis
Inguinal	inguin		al
Pneumonia	Pneumon		ia
Oncology	Onc	O	logy

# **Fasciotomy is an example of**

- A. Simple Word**
- B. Compound word**
- c. Combining word**



# When you make Analysis of the word begin with:

A . Beginning

B . End

C .Middle

**Adding Vowel to the word results in**

A. Prefix

B. Suffix

c. Combining form

D. Complex word

# Gastroduodenoscopy

Two Root    One Root    Three root

One combination do not need a combining  
Vowel :

A . Dermat + it is

B . Dermat + logy

C . Micr + Scopy

# Basic Elements of a Medical Word

1. Word Root
2. Combining Form (جزء من كلمة قابل للمزج مع كلمة أخرى)
3. Suffix
4. Prefix

These four parts of a word are known as  
**ELEMENTS.**

# Word Root

- Main part or foundation of a word.
- All words have at least one word root.
- A word root may be used alone or combined with other elements to form a complete word.

IE: SPEAK (word root) + ER (suffix) =  
SPEAKER (complete word)

# Word Root

- The word root usually refers to a body part.
- Some root words are derived from the Latin or Greek language.

**Table 1-1****EXAMPLES OF WORD ROOTS**

This table lists examples of word roots as well as their phonetic pronunciations. Begin learning the pronunciations as you review the information below.

<b>Greek or Latin Word</b>	<b>Word Root</b>	<b>Meaning</b>	<b>Word Analysis</b>
<b>dermatos (Gr*)</b>	derm	skin	dermat/itis (dĕr-mă-TĪ-tĭs): inflammation of the skin <i>A term that describes a skin disease</i>
<b>nephros (Gr)</b>	nephr	kidney	nephr/oma (nĕ-FRŌ-mă): tumor of the kidney <i>A term that describes a kidney disease</i>
<b>stoma (Gr)</b>	stomat	mouth	stomat/o/pathy (stŏ-mă-TŎP-ă-thĕ): any disease of the mouth <i>A term that describes a mouth disease</i>
<b>cutis (L)</b>	cutane	skin	sub/cutane/ous (sŭb-kŭ-TĀ-nĕ-ŭs): beneath the skin <i>A term that describes the anatomic tissue layer beneath the skin</i>
<b>oris (L)</b>	or	mouth	or/al (OR-ăl): pertaining to the mouth <i>A term that describes an anatomic structure</i>
<b>renes (L)</b>	ren	kidney	ren/al (RĒ-năl): pertains to the kidney <i>A term that describes an anatomic structure</i>

\*It is not important to know the origin of a medical word. This information is only provided to illustrate that there may be two different word roots for a single term.

# Example of word root

<b>G or L</b>	<b>Word Root</b>	<b>Meaning</b>	<b>Word Analysis</b>
<b>Dermatos ( Gr )</b>	<b>Dermat or Derm</b>	<b>Skin</b>	<b>A term that describe skin disease</b>
<b>Nephros ( Gr )</b>	<b>Nephr</b>	<b>Kidney</b>	<b>A term that describe Kidney disease</b>
<b>Stoma ( Gr )</b>	<b>Stomat</b>	<b>Mouth</b>	<b>A term that describe mouth disease</b>
<b>Cutis ( L )</b>	<b>Cutane</b>	<b>Skin</b>	<b>A term that describe anatomic tissue layer</b>
<b>Oris ( L )</b>	<b>Or</b>	<b>Mouth</b>	<b>A term that describe anatomic structure</b>
<b>Renes ( L )</b>	<b>Ren</b>	<b>Kidney</b>	<b>A term that describe anatomic structure</b>

# Word Root Examples

“dent” means tooth

“dermat” means skin

“cardi” means heart

“gastr” means stomach

“pancreat” means pancreas



# Combining Forms

Correct pronunciation of medical words is important.

In order to make the pronunciation of word roots easier, sometimes it is necessary to insert a vowel after the root.

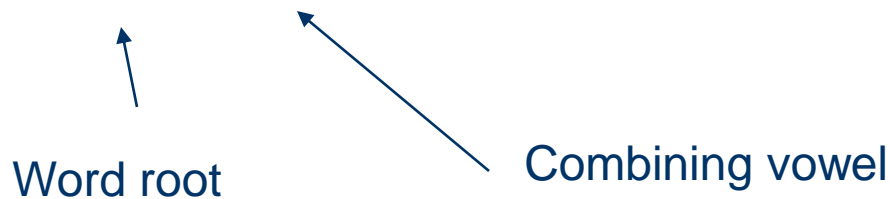
The combination of a word root and a vowel is known as a **COMBINING FORM**.

# Combining Forms

Combining forms consist of a combining vowel.

The combining vowel is usually an “o”, but others may be used.

IE: gastr / o pronounced GASTRO.



**Table 1-2****EXAMPLES OF COMBINING FORMS**

This table illustrates how word roots and vowels create combining forms. Learning combining forms rather than word roots makes pronunciation a little easier because of the terminal vowel. For example, in the table below, the word roots *gastr* and *nephr* are difficult to pronounce, whereas their combining forms *gastr/o* and *nephr/o* are easier to pronounce.

Word Root	+	Vowel	=	Combining Form	Meaning
erythr/	+	<i>o</i>	=	erythr/o	red
gastr/	+	<i>o</i>	=	gastr/o	stomach
hepat/	+	<i>o</i>	=	hepat/o	liver
immun/	+	<i>o</i>	=	immun/o	immune, immunity, safe
nephr/	+	<i>o</i>	=	nephr/o	kidney
oste/	+	<i>o</i>	=	oste/o	bone

# Word-Building System

- By understanding the meanings of word roots, one can determine the meaning of complex medical terms by putting together the smaller parts.

# Leukocytopenia

Word Roots: Leuk / (white)

cyt / (cell)

Combining Vowel / o /

Suffix: / penia (decrease)

- A combining vowel is used between a word root and a suffix that begins with a consonant (not a vowel).
- This is to make pronunciation easier.

Word root: scler / (hardening)

Suffix: / derma (skin)

Term: Scler / o / derma (hardening of the skin)



Combining vowel

# Suffixes

- A **suffix** is a word element placed at the end of a word or word root that changes the meaning of the word.
- In the terms tonsill/*itis*, and tonsill/*ectomy*, the suffixes are
  - ***-itis* (inflammation)**
  - ***-ectomy* (excision, removal).**
- Changing the suffix changes the meaning of the word.
- In medical terminology, a suffix usually indicates a procedure, condition, disease, or part of speech.
- Many suffixes are derived from Greek or Latin words

**Table 1-3****EXAMPLES OF SUFFIXES**

This table lists examples of suffixes as well as their phonetic pronunciations. Begin learning the pronunciations as you review the information below.

<b>Combining Form</b>	<b>+</b>	<b>Suffix</b>	<b>=</b>	<b>Medical Word</b>	<b>Meaning</b>
<b>gastr/o</b> (stomach)	+	<i>-itis</i> (inflammation)	=	gastritis gās-TRĪ-tĭs	inflammation of the stomach
	+	<i>-megaly</i> (enlargement)	=	gastromegaly gās-trō-MĒG-ă-lē	enlargement of the stomach
	+	<i>-oma</i> (tumor)	=	gastroma gās-TRŌ-mă	tumor of the stomach
<b>hepat/o</b> (liver)	+	<i>-itis</i> (inflammation)	=	hepatitis hĕp-ă-TĪ-tĭs	inflammation of the liver
	+	<i>-megaly</i> (enlargement)	=	hepatomegaly hĕp-ă-tō-MĒG-ă-lē	enlargement of the liver
	+	<i>-oma</i> (tumor)	=	hepatoma hĕp-ă-TŌ-mă	tumor of the liver



# Review

- A combining vowel ***IS*** used to link one root to another root, and before a suffix that begins with a consonant.
- A combining vowel ***IS NOT*** used before a suffix that begins with a vowel.

# Prefixes

- A prefix is a word element attached to the beginning of a word or word root.
- Adding or changing a prefix changes the meaning of the word.
- The prefix usually indicates a number, time, position, or direction.
- Many of the same prefixes found in medical terminology are also found in the English language

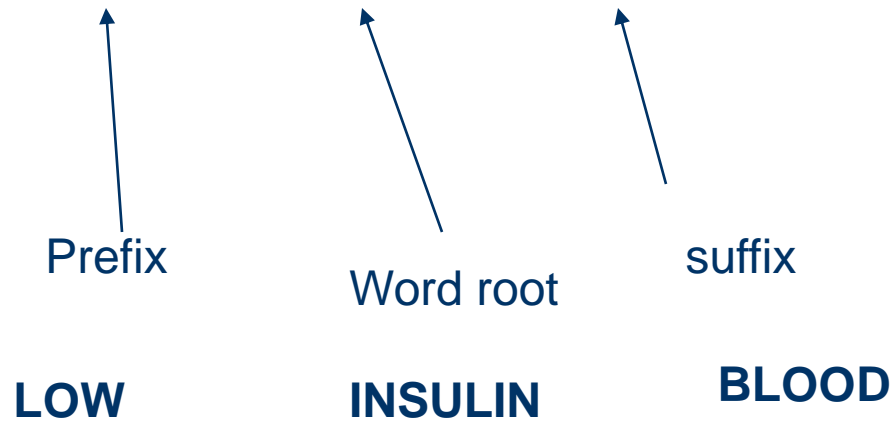
**Table 1-4****EXAMPLES OF PREFIXES**

This table lists examples of prefixes as well as their phonetic pronunciations. Begin learning the pronunciations as you review the information below.

<b>Prefix</b>	<b>+</b>	<b>Word Root</b>	<b>+</b>	<b>Suffix</b>	<b>=</b>	<b>Medical Word</b>	<b>Meaning</b>
<b>a-</b> (without)	+	<i>mast</i> (breast)	+	<i>-ia</i> (condition)	=	amastia ă-MĂS-tē-ă	without a breast
<b>hyper-</b> (excessive, above normal)	+	<i>therm</i> (heat)	+	<i>-ia</i> (condition)	=	hyperthermia hi-pěr-THĒR-mē-ă	condition of excessive heat
<b>intra-</b> (in, within)	+	<i>muscul</i> (muscle)	+	<i>-ar</i> (relating to)	=	intramuscular ĭn-tră-MŪS-kŭ-lăr	within the muscle
<b>macro-</b> (large)	+	<i>card</i> (heart)	+	<i>-ia</i> (condition)	=	macrocardia măk-rō-KĂR-dē-ă	condition of a large heart
<b>micro-</b> (small)	+	<i>card</i> (heart)	+	<i>-ia</i> (condition)	=	microcardia mī-krō-KĂR-dē-ă	condition of a small heart

# Hypoinsulinemia

Hypo / insulin / emia



Notice that there is no combining vowel in this word because the prefix ends with a vowel and the suffix begins with a vowel.

# Defining Medical Words

- Here are the three basic rules for defining medical words using the example term *gastroenteritis*.
- **Rule #1**
  - Define the **suffix**, or last part of the word. In this case, *-itis*, which means *inflammation*.
- **Rule #2**
  - Define the first part of the word (which may be a **word root**, **combining form**, or **prefix**). In this case, the combining form *gastr/o* means *stomach*.
- **Rule #3**
  - Define the middle parts of the word. In this case, *enter/* means *intestine*.

# Defining Medical Words

When you analyze *gastroenteritis* following the three previous rules, the meaning is revealed as:

1. inflammation (of)
2. stomach (and)
3. intestine

Thus, the definition of *gastroenteritis* is “inflammation (of) stomach (and) intestine.”

# Building Medical Words

- There are three basic rules for building medical words.
- **Rule #1**
  - A word root links a suffix that begins with a vowel.
- **Rule #2**
  - A combining form (root + o) links a suffix that begins with a consonant.
- **Rule #3**
  - Use a combining form to link a root to another root to form a compound word.

# Medical Terminology

Combining Form	+	Word Root	+	Suffix	=	Medical Word	Meaning
oste/o		chondr/		-itis		osteocondritis	inflammation
bone	+	cartilage	+	inflammation	=	ōs-tē-ō-kŏn-DRĪ-tĭs	of bone and cartilage
oste/o		arthr/		-itis		osteoarthritis	inflammation
bone	+	joint	+	inflammation	=	ōs-tē-ō-ăr-THRĪ-tĭs	of bone and joint