

MEDICAL TERMINOLOGY

STUDY GUIDE FOR PASSING EXAMS



MEDICAL TERMINOLOGY

- ▶ Medical terms are built from word parts. Those word parts are **prefix** , **word root** , **suffix** , and **combining form vowel**.
- ▶ Medical terminology is **the language used to describe components and processes of the human body, medical procedures, diseases, disorders, and pharmacology**. Simply put, it is the vocabulary that medical professionals use to describe the body, what it does, and the treatments they prescribe.

FOUNDATION OF MEDICAL TERMINOLOGY



Prefix: When included, the prefix appears at the beginning of a medical term and usually indicates a location, direction, type, quality, or quantity.



Root: The root gives a term its essential meaning. Nearly all medical terms contain at least one root. When a prefix is absent, the term begins with a root.



Suffix: The suffix appears at the end of a term and may indicate a specialty, test, procedure, function, disorder, or status. Otherwise, it may simply define whether the word is a noun, verb, or adjective.



Combining Vowel: A combining vowel (usually the letter “o”) may be added between word parts to aid in pronunciation.

BASIC MEDICAL TERMS to DESCRIBE DISEASE CONDITIONS

Sign - objective evidence of disease (fever)

Diagnosis - identification of a disease

Acute - rapid onset

Disease - condition when body parts are functionally properly

Symptom - subjective evidence of disease (headache)

Differential diagnosis - also known as rule out (R/O) to determine the cause

Chronic - condition of long duration

Eponym - disease, operation or procedure named for person who discovered it

Syndrome - a set of signs and symptoms that occur together as part of a specific disease

Prognosis - a prediction of the probable course and outcome of a disease

Remission - the temporary, partial, or complete disappearance of the symptoms of a disease without having achieved a cure

ACRONYM - a word formed from the initial letter of the major parts of a compound

WORD PARTS & MEDICAL TERMS

- ▶ -algia (pain, suffering)
- ▶ dys- (bad, difficult, painful)
- ▶ -ectomy (surgical removal, cutting out)
- ▶ hyper- (increased, excessive)
- ▶ Hypo- (decreased, deficient)
- ▶ -ostomy (surgical creation of an artificial opening to the body surface)
- ▶ -plasty (surgical repair)
- ▶ -rrhage (bleeding, excessive fluid discharge)
- ▶ -rrhaphy (surgical sutures)
- ▶ -rrhea (flow or discharge)
- ▶ -sclerosis (abnormal hardening)
- ▶ -otomy (cutting or surgical incision)
- ▶ **Arthralgia** - joint pain
- ▶ **Dyspepsia** - difficult digestion
- ▶ **Hysterectomy** - removal of female reproductive organs
- ▶ **Hyperglycemia** - HIGH sugar in blood
- ▶ **Hypotension** - LOW blood pressure
- ▶ **Colostomy** - operation that connects the colon to abdominal wall
- ▶ **Rhinoplasty** - repair of nose
- ▶ **Hemorrhage** - excessive bleeding
- ▶ **Myorrhaphy** - sutures of muscles
- ▶ **Diarrhea** - excessive fecal flow
- ▶ **Multiple sclerosis** - hardening of muscles
- ▶ **Colotomy** - surgical incision into the colon

UNDERSTANDING MEDICAL VOCABULARY

Once you learn how word parts work together to form medical terms, learning medical terminology is much easier

When a combining form appears alone, it is shown with a back slash(/) between the root word and the combining vowel - Example: the combining form of the root **gastr** is **gastr/o**.

Myel/o - spinal cord

My/o - muscle

Oste/o - bone

Neur/o - nerve

Arthr/o - joint

WORD ROOT & COMBINING FORMS

Cyan/o - Cyanosis (sigh-ah-NOH) is blue discoloration of the skin caused by a lack of adequate oxygen in the blood. (CYAN means BLUE and OSIS means abnormal condition or disease)

Leuk/o - a leukocyte (LOO-koh-sight) is a white blood cell. (LEUK/o means white and -CYTE means cell)

Erythr/o - an erythrocyte (eh-RITE-roh-sight) is a mature red blood cell (ERYTHR/o means RED)

Poli/o - Poliomyelitis (poh-lee-oh-my-eh-LYE-tis) is a viral infection of the grey nerve tissue of the spinal cord (POLI/o means grey, MYEL means spinal cord and -ITIS means inflammation)

SUFFIXES meaning “PERTAINING to”

- ▶ -ac
- ▶ -al
- ▶ -an
- ▶ -ar
- ▶ -ary
- ▶ -eal
- ▶ -ic

- ▶ -ine
- ▶ -ior
- ▶ -ory
- ▶ -ous
- ▶ -tic
- ▶ -eal
- ▶ -ical
- ▶ -ial


SUFFIXES related to PROCEDURES

-centesis is a surgical puncture to remove fluid for diagnostic purposes or to remove excess fluid. Abdominocentesis (ab-dom-ih-noh-sen-TEE-sis) is the surgical puncture of the abdominal cavity to remove fluid.

-scopy means visual examination. Arthroscopy (ar-THROS-koh-pee) is the visual examination of the internal structure of a joint (arthr/o means joint and -scopy is visual examination)

MEDICAL TERMINOLOGY PREFIXES

A prefix is something added to the beginning of a word to influence the meaning of that term. Prefixes usually, but not always, indicate location, time, or number. Example, the term natal (NAY-tal) means pertaining to birth (nat means birth, and -al means pertaining to). The following examples show how prefixes change the meaning of the terms.



Prenatal means the time and events before birth (pre- means before, nat means birth, and -al means pertaining to)



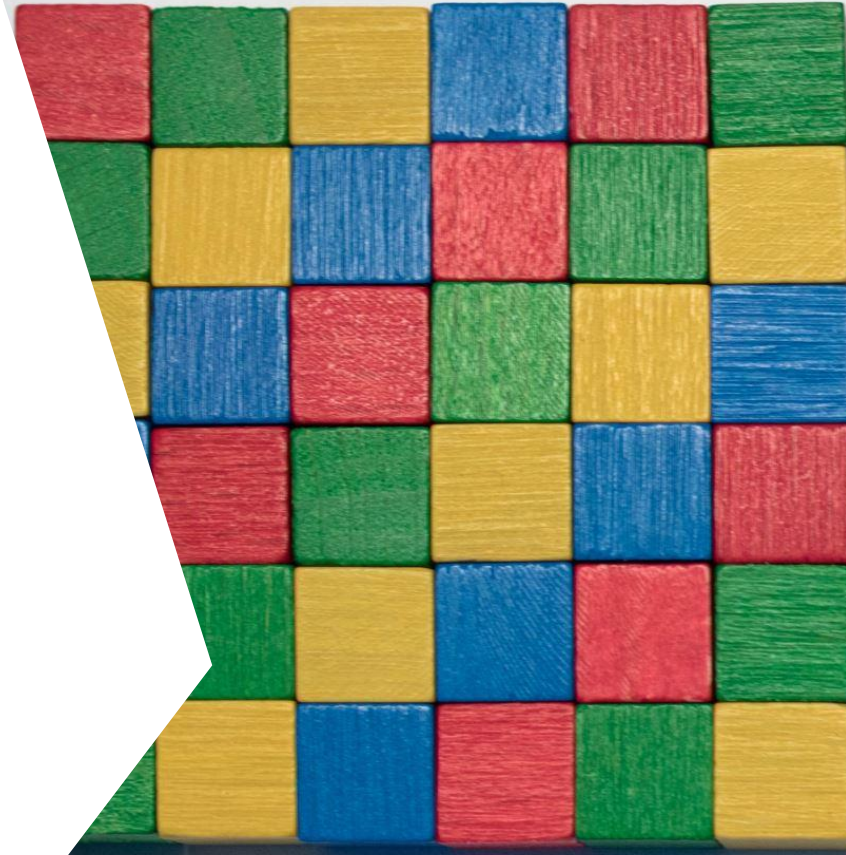
Perinatal (pehr-ih-NAY-tal) refers to the time and events surrounding birth (peri- means surrounding)

PREFIXES Describing, Direction, Quantity, Size and Amount

- ▶ Ab- away from, negative, absent
- ▶ Dextr/o right side
- ▶ Ex- out of, outside, away from
- ▶ Macro- large, abnormal size, long
- ▶ Mega- large or great
- ▶ Pre- before
- ▶ Ad- toward, to, on the direction of
- ▶ Sinistro- left side
- ▶ In- in, into, not, without
- ▶ Micr/o small
- ▶ Olig/o - scanty, few
- ▶ Post- after, behind

CONTRASTING and CONFUSING PREFIXES

- ▶ Some prefixes are confusing because they are similar in spelling but opposite in meaning. The more common prefixes of this type are listed on the next slide



CONTRASTING and CONFUSING PREFIXES

- ▶ Sub- under, less, below
- ▶ Supra- above or excessive
- ▶ Intra- within or inside
- ▶ Inter- between or among
- ▶ Eu- good, normal, well, easy
- ▶ Subcostal - below the rib or ribs
- ▶ Supracostal - above or outside of ribs
- ▶ Intramuscular - within the muscle
- ▶ Interstitial - between, but not within the parts of the tissue
- ▶ Eupnea - easy or normal breathing

WORD PARTS and DETERMINING the MEANING

Knowing the meaning of the word parts often makes it easier to figure out the definition of an unfamiliar term.

Always start at the end of the word, with the suffix and work toward the beginning.

As you separate the word parts, identify the meaning of each to get a definition of term.

Be aware that not all medical terms are made up of word parts.

LET'S PRACTICE DISSECTING A MEDICAL TERM

Look at the term otorhinolaryngology (oh-toh-rye-noh-lar-in-GOL-oh-jee) which is the study of the EARS, NOSE, and THROAT.

OT/o

EAR

RHIN/o

NOSE

LARYNG
(LARYNX)

THROAT

OLOGY

STUDY OF



SPELLING IS VERY IMPORTANT

- ▶ Accuracy in spelling medical terms is extremely important!!!!!!!!!!!!!!!!!!!!
- ▶ Changing just one or two letters can completely change the meaning of a word - and this difference literally could be a matter of life and death for the patient.

SPELLING IS VERY IMPORTANT

If it sounds like “F” (flatus - FLAY-tus), or it could be “PH” (phlegm - FLEM)

If it sounds like “J”, it could be (“G” - gingivitis - jin-jih-VYE-tis) or an actual “J”, as in jaundice (JAWN-dis).

If it sounds like a “K”, it could be “C” (crepitus - KREP-ih-tus), “Ch” (cholera - KOL-er-ah), “K” (kyphosis - kye-FOH-sis), or “Qu” (quadriplegia - kwad-rih-PLÉE-jee-ah).

If it sounds like a “S”, it could be “C” (cytology - sigh-TOL-oh-jee), “Ps” (psychologist - sigh-KOL-oh-jist), or an actual “S” (serum - SEER-um).

SINGULAR and PLURAL ENDINGS

- ▶ Many medical terms have Greek or Latin origins and as a result, there are unusual rules for changing a singular word into a plural form.

GUIDELINES for UNUSAL PLURAL FORMS

If the singular term ends in the suffix -a, the plural is usually formed by changing ending to -ae



If the singular term ends in the suffix -ex or -ix, the plural is usually formed by changing these endings to -ices.



If the singular term ends in -um, the plural is usually formed by changing the ending to -a



If the singular term ends in -is, the plural is usually formed by changing the -is ending to -ides

SINGULAR and PLURAL MEDICAL TERMS

Singular: bursa

Plural: bursae

Singular: vertebra

Plural: vertebrae

Singular: appendix

Plural: appendices

Singular: index

Plural: indices

Singular: diagnosis

Plural: diagnoses

Singular: metastasis

Plural: metastases

Singular: arthritis

Plural: arthritides

Singular: meningitis

Plural: meningitides

Singular: diverticulum

Plural: diverticula

LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

FISSURE (FISH-ur) a groove or crack - like sore of the skin. This term also describes normal folds in the contours of the brain

FISTULA (FIS-chuh-lah) an abnormal passage, usually between two internal organs or leading from an organ to the surface of the body. A fistula may be due to surgery, injury, or the draining of an abscess

LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

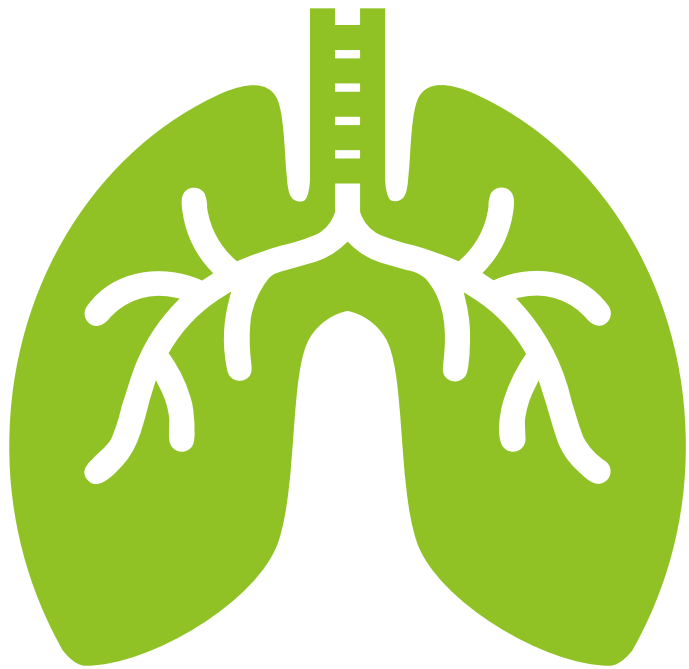
LACERATION (LASS-er-AY-shun) is a torn or jagged wound, or an accident cut

LESION (LEE-zhun) is a pathologic change of the tissues due to disease or injury

LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

ILEUM (ILL-ee-um) is the last and longest portion of the small intestine (remember ileum is spelled with an e as in intestine)

ILIUM (ILL-ee-um) is part of the hip bone (remember ilium is spelled with an i as in hip)



LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

- ▶ MUCOUS (MYOU-kus) describes the specialized membranes that line the body cavities
- ▶ MUCUS (MYOU-kus) fluid secreted by these mucous membranes



LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

- ▶ **PALPATION** (pal-PAY-shun) an examination technique in which the examiner's hands are used to feel the texture, size, consistency, and location of certain body parts.
- ▶ **PALPITATION** (pal-pih-TAY-shun) a pounding or racing heart.

LOOK-ALIKE,
SOUND-ALIKE
TERMS and
WORD PARTS

VIRAL (VYE-ral) pertaining to a virus (VIR means virus or poisoning and -al means pertaining to).

VIRILE (VYE-ill) having the nature, properties or qualities of an adult male.

LOOK-ALIKE, SOUND-ALIKE TERMS and WORD PARTS

SUPINATION (soo-pih-NAY-shun) the act of rotating the arm so that the palm of the hand is forward or upward.

SUPPURATION (sup0you-RAY-shun) the formation or discharge of pus.

INFECTION and INFLAMMATION

An **INFECTION** (in-FECK-shun) is the invasion of the body by a pathogenic (disease-producing) organism. The infection can remain localized (near the point of entry) or can be systemic (affecting the whole body). Signs and symptoms of infection include malaise, chills, and fever, redness, heat and swelling, or exudate from a wound.

INFLAMMATION (in-flah-MAY-shun) is a localized response to an injury or to the destruction of tissues. The key indicators of inflammation are 1) erythema (redness), (2) hyperthermia (heat), (3) edema (swelling), and (4) pain. These are caused by extra blood flow into the area as part of the healing process.

EXUDATE (ECKS-you-dayt) a fluid, such as pus that leaks out of an infected wound

INFECTION and INFLAMMATION

Although the suffix **-itis** means inflammation, it also is commonly used to indicate infection.

MENINGitis (MENING means the meninges and **-itis** means inflammation, in which the cause of the inflammation is an infection.

TENDONitis inflammation in the tendon, the inflammation is usually caused by overuse rather than infection.

MEDICAL TERMINOLOGY

- HYPER - excessive/ above
- HYPO - beneath/ below
- INTER - between
- INTRA - within/ inside
- AB - away from
- AD - toward
- ANTE - before
- ANTI - against
- BI - two
- BRADY - slow
- DE - from/ down
- DYS - painful/ abnormal
- ENDO - within
- SUPRA - above
- TACHY - fast
- TRANS - through/ across
- DIA - through/ complete
- EPI - on/ over
- MACRO - large
- MICRO - small
- META - after/ beyond
- MULTI - many
- NEO - new
- PARA - beside/ beyond
- PERI - surrounding
- POLY - many
- POST - after
- PRE - before
- PRO - before
- SUB - below/ underneath
- NULLI - none

MEDICAL TERMINOLOGY

- TRI - three
- UNI - one
- A - no/ not/ without
- PACHY - thick/ thickening
- PAN - all/ total
- ADREN/O - adrenal gland
- ANDR/O - male
- ARTHR/O - joint
- ATHER/O - plaque (fatty substance)
- DERM/O - skin
- DIS - apart/ to separate
- DORS/O - back of body
- HELC/O - ulcer
- HEM/O - blood
- HEPAT/O - liver
- HIST/O - tissue
- CARCIN/O - cancerous/ cancer
- HYSTER/O - uterus/ womb
- MAMM/O - breast
- MAL - bad
- MEDI/O - middle
- MON/O - one
- MUT/A - genetic change
- MYOS/O - muscle
- SALPING/ O - fallopian tubes
- STOMAT/O - mouth
- NAS/O - nose
- NAT/I - birth
- NECR/O - death
- NEUR/O - nerve
- NARC/O - numbness/ sleep/ stupor
- IMMUN/O - immune
- INFRA - below/ beneath/ inferior to
- INGUIN/O - groin

MEDICAL TERMINOLOGY

- CARDI/O - heart
- HETER/O - different
- CARP/O - carpals (wrist bones)
- CEPHAL/O - brain/ head
- CEREBR/O - brain
- CERVIC/O - neck/ neck of uterus
- CHOL/E - bile/ gall
- CHOL/O - bile, gall
- CHOLECYST/O - gallbladder
- COL/O - large intestine
- COLP/O - vagina
- CONTRA - against/ opposite
- CRY/O - cold
- CRYPT/O - hidden
- CUTANE/O - skin
- CYAN/O - blue
- CYST/O - bladder
- CYT/O - cell
- BLEPHAR/O - eyelid
- BRONCH/I-O - air tubes in lungs
- LING/U - tongue
- OT - ear
- OSTE/O - bones
- POD/PED - foot
- NEPHR/O - kidney
- GASTR/O - stomach
- EX - outside of
- AUTO - self
- EU - normal/ good
- ADIP - fat/ fatty tissue
- AMBI - two/ both sides
- LARYNG/O - pertaining to larynx
- LEUK/O - denoting of a white color
- MYRING/O - eardrum

COMMONLY USED TERMINOLOGY



COMMONLY USED TERMINOLOGY

Adipocyte

Arthritis

Blepharoplasty

Cholecystectomy

Colposcopy

Contraindication

Cyanosis

Subcutaneous

Dermatology

Encephalogram

Gastroenterology

Histology

Cardiovascular

Mammogram

Necrosis

COMMONLY USED TERMINOLOGY

Hypertension

Amniocentesis

Prenatal

Hypotension

Dehydrate

Abduction

Adduction

Unilateral

Bilateral

Antepartum

Antidepressant

Endocrinology

Epidermis

Hemiparesis

Dialysis

Bradycardia

Tachycardia

Intercostal

Intramuscular

Metacarpal

Microbiology