

MEDICAL TERMINOLOGY
PROF. DR. QAHTAN HADI
HUSSEIN

FIRST CLASS FOR THE YEAR
2024-2025

MEDICAL TERMINOLOGY

- **Why is it important to know medical terminology?**
- There are several reasons why it might be important for you to know medical terminology. Some of these include:
- **Working or applying to work in the medical field**
- You might not be a practicing doctor or nurse but, instead, might be working or looking to

MEDICAL TERMINOLOGY

- **Understanding your medical benefits**
- If your workplace offers medical benefits, you might receive documentation with those benefits detailing the various medical services and conditions that your provider covers. Knowing medical terminology can be helpful to you as you read the documentation and interact with your provider about your healthcare. **Related:** [How To Get a Medical Coding Job From Home With No Experience](#)
- [Upgrade your resume](#)
- Showcase your skills with help from a resume expert

BASIC MEDICAL TERMINOLOGY

- **Abbreviations and acronyms**

- This list contains some common medical abbreviations and acronyms:
- **AC:** Ante cibum, or "before meals," indicating when a patient should take medication
- **ADR:** Adverse drug reaction
- **ALOC:** Acute loss of consciousness
- **BMI:** Body mass index, a measurement of body fat based on height and weight
- **BP:** Blood pressure, a measurement of the pressure exerted by the flow of blood upon vessel walls. This measurement is expressed using two numbers, the systolic, or highest pressure and the diastolic, or lowest pressure.

BASIC MEDICAL TERMINOLOGY

- **CHF:** Congestive heart failure
- **DNR:** Do not resuscitate, an indication that the patient does not want CPR or other life-saving procedures performed on them
- **ECG or EKG:** Electrocardiogram, a device that records heartbeats
- **EMS:** Emergency medical services
- **FX:** Fracture
- **HR:** Heart rate, the number of times a person's heart beats, usually measured per minute
- **LFT:** Liver function test
- **MRI:** Magnetic resonance imaging, diagnostic imaging that uses magnetism and radio waves to produce images of internal organs
- **PT:** Physical therapy
- **Rx:** Prescription
- **UTI:** Urinary tract infection

DISEASES AND CONDITION

- These are some common terms for diseases and conditions:
- **Acute:** A condition that is often severe but starts and ends quickly
- **Angina:** Intermittent chest pain normally caused by insufficient blood flow to the heart
- **Benign:** Refers to a tumor that is neither cancerous nor malignant
- **Chronic:** Describes a condition that is persistent or recurring
- **Edema:** Swelling as a result of fluid retention or buildup
- **Embolism:** A clot caused by blood, fat, air or other types of fluid, gas or foreign material
- **Fracture:** A cracked or broken bone
- **Hypertension:** Unusually high blood pressure
- **Hypotension:** Unusually low blood pressure

DISEASE AND CONDITIONS

- **Intravenous:** Administration of medication or fluids by vein
- **Lesion:** Damage or change to tissue, such as a cut, a wound or a sore
- **Malignant:** Refers to the presence of cancerous cells in a tumor or growth
- **Myocardial infarction:** Also known as a heart attack, where the heart is deprived of blood due to arterial blockage
- **Remission:** Describes a disease that is not getting worse
- **Sepsis:** An imbalance in the body's response to infection that injures the body's tissues and organs
- **Thrombosis:** A blood clot that forms inside a blood vessel restricting blood flow

MEDICAL SLANG

- This is a list of some informal terms often used by medical professionals:
- **Afib:** Atrial fibrillation, irregular and rapid heartbeats
- **Bagging:** Helping a patient breathe using a squeeze bag attached to a face mask
- **C-section:** Caesarian section, where a baby is delivered through an abdominal and uterine incision
- **Detox:** Detoxification, the removal of toxins from the body, such as drugs or alcohol
- **Exam:** Examination

MEDICAL SLANG

- **Foley:** A catheter inserted into the bladder to help with urinary drainage
- **GCS:** Glasgow Coma Scale, level of consciousness
- **Labs:** Laboratory work or tests
- **MVA:** Motor vehicle accident
- **Nitro:** Nitroglycerin
- **O sign:** A patient who is unconscious and open-mouthed

MEDICAL SLANG

- **OD'd:** Overdosed
- **Script:** Prescription
- **Stat:** Immediately
- **Thready:** Shallow and weak, particularly in reference to a person's pulse
- **Tox screen:** A blood test to determine the type and quantity of drugs in the system

BREFIXES AND SUFFIXES

- You can often determine what a medical term means if you understand some basic prefixes and suffixes, such as:
- **A- or an-:** Lacking or without
- **Ab-:** Away from
- **-algia:** Indicates pain or a painful condition
- **Cardio-:** Related to the heart
- **Ecto- or exo-:** Outside of
- **-ectomy:** Removal through surgery

BREFIXES AND SUFFIXES

- **-ectomy:** Removal through surgery
- **Hyper-:** Above, beyond or in excess
- **-itis:** An inflammation
- **-mortem:** Relating to death
- **-plasty:** Repair through surgery
- **Post-:** After or behind

BREFIXES AND SUFFIXES

- **-rrhea:** A discharge or a flow
- **-somnia:** Related to sleep
- **Trans-:** Across or through
- **-trophic:** Relating to nutrition
- **Vas(o)-:** Relating to a vessel

MEDICAL PROCEDURE

- Here are some common medical procedures and tests:
- **Appendectomy:** Surgical procedure to remove the appendix
- **Biopsy:** Removal of a small tissue sample for testing
- **Blood culture:** Test to reveal the existence of fungi or bacteria in the blood, possibly indicating an infection
- **Blood swab:** Taking a blood sample using a cotton-tipped stick
- **Coronary bypass:** Surgical transplant of a healthy blood vessel into the heart to bypass or replace an unhealthy vessel

MEDICAL PROCEDURE

- **Dialysis:** Process to filter the blood, usually performed as a result of kidney failure
- **Fusion:** Joining together adjacent bones or vertebrae to increase stability
- **Glucose test:** A test to discover the quantity of a particular type of sugar in the bloodstream
- **Hysterectomy:** Surgical procedure to remove the uterus

MEDICAL PROCEDURE

- **Lumbar puncture or spinal tap:** Drawing of cerebrospinal fluid from the lumbar region of the back using a hollow needle
- **Mastectomy:** Surgical procedure to remove part or all of the breast
- **Occult blood screen:** Use of a chemically treated card or pad to test for blood hidden in a stool sample
- **Ultrasound:** Imaging produced by high-frequency sound waves, usually used to view internal organs
- **X-ray:** Use of high-energy electromagnetic radiation to create images of internal bones and organs

ROOT TERMS

- Many medical terms come from Greek or Latin root words. Knowing some of these may help you determine the meaning of a term:
- **Aqua-:** Pertaining to water
- **Asphyxia:** Choking or loss of consciousness due to oxygen deprivation
- **Carcin(o)-:** Related to or causing cancer
- **Cyto-:** Pertaining to a cell or cells
- **Derma-:** To do with the skin
- **Digit:** Either a finger or a toe

ROOT TERMS

- **Encephal(o)-**: To do with the brain
- **Gastr(o)-**: Related to the stomach
- **Lact-**: Pertaining to milk
- **Men-**: A month or occurring monthly
- **Nephr(o)-**: Related to the kidneys
- **Onc(o)-**: To do with tumors or masses, often related to cancer
- **Ov-**: Pertaining to eggs
- **Pulmon(o)-**: To do with the lungs
- **Stasis**: Causing the flow of a fluid, such as blood, to slow or stop

TOOLS AND EQUIPMENT

- **Viscous or viscosity:** Sticky or thick, thickness
- Here are some common medical tools, devices and appliances:
- **Blood lancet:** A double-edged blade or needle used to obtain blood samples
- **Defibrillator:** A device that discharges an electric current to the heart to correct cardiac arrhythmia or arrest
- **Dialyser:** A machine that replaces the function of the kidneys by removing solutes, excess water and toxins from the blood

TOOLS AND EQUIPMENTS

- **Endoscope:** An optical instrument containing a tube with a lighted end used for internal examinations
- **Forceps:** A hinged instrument, like scissors, used to grasp and hold objects
- **Hypodermic needle:** A very thin, hollow needle used with a syringe to inject substances into the body or to extract blood
- **Nebulizer:** A device used to deliver medication in an aerosol form through inhalation

TOOLS AND EQUIPMENTS

- **Ophthalmoscope:** An instrument used to examine the eye's fundus, retina and other structures
- **Otoscope or auriscope:** A device for examining the external ear cavity
- **Pulse oximeter:** A small device that clips to the finger, toe or earlobe used to measure blood oxygen saturation
- **Reflex hammer:** A specially designed hammer used to test deep tendon or motor reflexes

TOOLS AND EQUIPMENTS

- **Speculum:** An instrument used when examining body orifices to help widen the opening
- **Spirometer:** A device that measures the amount of air breathed in and out by the lungs
- **Splint:** A tool for immobilizing and protecting displaced or injured body parts such as broken bones or dislocated joints
- **Stethoscope:** A device for listening to the heartbeat or breathing
- **Ventilator:** A machine that provides mechanical assistance with breathing

INTRODUCTION TO THE MEDICAL TERMINOLOGY

PROF . DR. QAHTAN HADI HUSSEIN

- Medical terminology is language that is used to describe anatomical structures, processes, conditions, medical procedures, and treatments. At first glance, medical terms may appear intimidating, but once you understand the standard structure of medical words and the [definitions](#) of some common word elements, the meaning of thousands of medical terms is easily unlocked.

- Most medical terms adhere to a fixed structure of a prefix, a root, and a suffix. These word components are assembled like building blocks to create a vast vocabulary.
- The physicians of Greece are considered the founders of rational medicine, and medical terms are primarily derived from Greek and Latin.¹ Over the centuries, the language of medicine has evolved into multiple national medical languages. Today, medical English is the primary language for international communication. It is used in most influential medical journals and has become the language of choice at international conferences.²

- Medical terms are composed of these standard [word parts](#):
- **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.

- Breaking a word down into its component parts should help readers ascertain the meaning of an unfamiliar term. For example, hypothermia has the prefix hypo- (meaning below normal), the root therm (heat or warmth), and the suffix -ia (condition).

HYP0
(below normal)

+

THERM
(heat)

+

IA
(condition)

Prefix

Root

Suffix

oots often indicate a body part or system.

Head	
brain	enceph
ear	ot, aur
eardrum	tympan, myring

eye	ophthalm, ocul
face	faci
nose	rhin
skull	crani

tongue

lingu

tooth

odont, dent

Heart and Circulatory System

aorta	aort
arteries	arteri
blood	hem, sangu

blood vessels	angi
heart	cardi
veins	ven, phleb

Bones and Muscles

arm	brachi
-----	--------

back	dorsa
------	-------

bone	oste
------	------

bone	oste
foot	pod, ped
muscle	myo
rib	cost
shoulder	scapul

rib

cost

shoulder

scapul

wrist

carp

Digestive System

appendix

append

colon

col

esophagus	esophag
intestine (usually small)	enter
kidney	ren, neph
liver	hepat
stomach	gastr

Other Common Roots	
cancer	carci
drug	chem
electric	electr
heat	therm

life

bi

pressure

bar

returned sound

echo

- ***Compound Words***

- A medical word may include multiple roots. This frequently occurs when referencing more than one body part or system. For example, cardio-pulmo-nary means pertaining to the heart and lungs; gastro-entero-logy means the study of the stomach and intestines.

- ***Combining Forms***

- A combining vowel is used when a root is followed by another word part that begins with a consonant. A combining vowel (usually the letter "o") is added after the root (e.g., neur-**o**-logy) to aid pronunciation. The root and vowel together (e.g., neur-o) are called the combining form. For simplicity, combining vowel options are omitted from the word part tables.

NEUR
(nerve)

+

O

+

LOGY
(study of)

Root

Vowel

Suffix

Combining Form

- Prefixes
- A prefix modifies the meaning of the word root. It may indicate a location, type, quality, body category, or quantity. Prefixes are optional and do not appear in all medical terms.

Number	
half	semi-
half (one side)	hemi-

Size	
large	macro-, mega(lo)-
small	micro-

one

mono-, uni-

two | three | four

bi- | tri- | quad(ri)-

equal

equi-

many

poly-

Level	
above normal	hyper-
below normal	hypo-
normal/good	eu-

Time or Speed

before

pro-, pre-, ante-

after

post-

back/backward

retro-

again

re-

after	post-
back/backward	retro-
again	re-
fast	tachy-
slow	brady-

new

neo-

time, long time

chron-

Location or Relationship

away from

ab-

above

supra-

around

peri-

across

trans-

between

inter-

out of, outside

ex-, ec(t)-

self

auto-

through, completely

dia-

together

con-

toward

ad-

against	anti-, contra-
bad	mal-
cause	eti-
self	auto-
without	a-, de-
abnormal, bad	dys-

- Suffixes
- Medical terms always end with a suffix.³ The suffix usually indicates a specialty, test, procedure, function, condition/disorder, or status. For example, “itis” means inflammation and “ectomy” means removal.
- Alternatively, the suffix may simply make the word a noun or adjective. For example, the endings -a, -e, -um, and -us are commonly used to create a singular noun (e.g., crani-um).

- Although the suffix appears at the end of the term, it often comes first in the definition. For example, appendicitis means inflammation (-itis) of the appendix.⁴ Accordingly, it is sometimes helpful to read unfamiliar medical terms from right to left.
- Occasionally, medical terms are composed of only a prefix and a suffix. For example, apnea includes the prefix a- (without) and suffix -pnea (breathing).
- Common suffixes (letters in parentheses are not always present):

Basic Noun and Adjective Suffixes

(noun form)

-a, -e, -um, -is

causing

-genic

condition	-ia, -ism, -sis, -y
specialty	-iatry, -iatrics, -ics
specialist	-ian, -ist
structure	-um, -us
small, little	-ula, -ulum, -ulus
study of	-logy

Tests and Procedures

removal of

-ectomy

image/record

-gram

recording instrument

-graph(y)

cut in

-otomy

visual examination

-scopy

blood (condition of)	-emia
breathing	-pnea
inflammation	-itis
condition or disease	-osis
deficiency	-penia
disease	-pathy
excessive flow	-rrhag(e/ia)

- ***Plural Forms***

- Adding an “s” or “es” to the end of a word is often the straightforward method to make a word plural in English and many modern Romance languages. In medical terminology, however, things are a little more complicated. The plural form of each word is based on the last two letters of the singular suffix.
- There are several exceptions. For example, “virus” is a Latin term without a plural form. “Viruses” is the accepted plural form. Elsewhere, the suffix “s” or “es” occasionally prevails in common usage. For example, the plural form of “hematoma” is “hematomas” rather than “hematomata.”
- Common singular endings and corresponding plural endings:

Plural Forms⁵

Singular

Plural

a

ae

en	ina
ex, ix, yx	ices
is	es
ma	mata
(a/i/y)nx	nges
um	a
us	i(i)