

# MEDICAL TERMINOLOGY FOR INTERPRETERS





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# Acknowledgements

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.....

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.....

For the direction, vision and contribution of his ten years' experience teaching adult learners the complex skills involved in becoming a professional medical interpreter. Specifically, Mr. Abdelkader utilized our experiences in the Washington,

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.....

For the vision of developing and providing a world-class training that is affordable and accessible to all, with the ultimate goal of serving the communities where we live and work. Whether they be language access services staff within hospitals or individuals who meet the qualifications to be trained to give the gift of their language, culture, and voice to the limited-English-proficient (LEP) communities in the United States and beyond.

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**Drew Bahr, J.D., Spanish/English Legal and Medical Interpreter**  
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With a Juris Doctorate, J.D. from the Washington College of Law at American University, Drew Bahr is also both a medical and legal English/Spanish interpreter, as well as interpreter trainer. Mr. Bahr was

involved with the creation of the course content including presentation material.

**Dr. Cynthia E. Roat, Ph.D.**

Dr. Roat is an international consultant on language access in health care and patient navigation and contributed as a recognized subject matter expert on medical interpreting and reviewed the course as well as contributing an important chapter and exercises on the topic of message **conversion**—the mechanics and how to do the linguistic work of converting a spoken message from one language into another.

.....  
**Dr. Izabel de Souza, Ph.D.**  
.....

Dr. de Souza is an international expert and leader for medical interpreting. She served as reviewer and contributed to the book as a recognized subject matter expert in medical interpretation and intercultural mediation. Her contribution to the section on The Roles of Interpreters emphasizes the undeniable cultural broker role and how medical interpreters mediate intercultural communication between patients and healthcare providers.

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**Dr. Jacqueline Messing, Ph.D.**  
.....

Dr. Messing is a linguistic anthropologist and served as reviewer and copy editor for the course textbook and presentation materials.

Her research interests focus on issues of language, identity, ideology, race and racism in Mexico and the United States, on indigenous communities, multilingualism, and attempts to revitalize native languages through education. Dr. Messing's review was done in the context of the tumultuous year that was 2020 and she sought to also review for inclusivity, equality, and diversity.

.....  
**Maria Teresa Buendia Schlenker, Certified  
Healthcare Interpreter for English/Spanish and  
Medical Interpreter Trainer**  
.....

With a degree in microbiology and as an experienced healthcare interpreter, Ms. Schlenker is an in-house subject matter expert and provided her review of the course and contributed medical terminology content and exercises.

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# Table of Contents





# Welcome

**W**elcome to the Academy of Interpretations' Medical Terminology section. We are pleased to present this section to you as the next exciting phase in your medical interpreting course. We would love to congratulate you for taking on this challenge; medical terminology is complicated, and often considered to be a language of its own.

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**As you may already know, most medical terms are Latin or Greek in origin. In order to more easily memorize the meanings of these complicated, long words, we are first going to analyze their roots, suffixes, and prefixes. Once you learn everything in this book, you will be much more confident when decoding a new medical term.**

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After conquering the medical roots, suffixes, and prefixes, we will analyze the 11 different body systems that work together to keep us alive. For each body system, you will find a chapter that includes: learning objectives, physiology, anatomy, pathology, providers, procedures, and important vocabulary that you will have to learn. There will also be a quiz at the end of each chapter that you can use to test your knowledge and discover areas that you may need to re-examine. At the very end of the course, there will be a final exam. Please take the opportunity to review what you have learned before taking this exam.

We sincerely hope that you enjoy this course. Please remember to be patient with yourself; learning medical terminology can be challenging, but also very rewarding!



# 1

## UNDERSTANDING MEDICAL TERMINOLOGY

**M**edical terminology is, essentially, a separate language; it is a collection of words and phrases that is used by a specialized, professional group of people. Those who have little to no knowledge of medical terminology will find it hard to understand the majority of interactions in the healthcare setting.

### BEST TECHNIQUES FOR EASY AND SIMPLE LEARNING: MEDICAL TERMINOLOGY

Most of us realize that learning English medical terms is like learning another language and it is a fact that we must take time and apply our memory skills to learn new medical words. Learning new medical vocabulary must be done daily. The more medical terminology you know and memorize in English and non-English languages, the smoother your medical assignments will be.

### TECHNIQUES FOR LEARNING MEDICAL TERMINOLOGY

Below are some techniques you can follow in order to learn medical terminology effortlessly and easily.

#### 1. REPEATED EXPOSURE

The repeated exposure technique is one of the most interesting and helpful techniques that you should follow. To be able to master this technique, you have to repeat, see, and use the medical term many times so you can easily store it in your long-term memory.

#### 2. USING YOUR FIVE SENSES

This technique depends heavily on all your senses. You have to use all five senses (visual/eyes, auditory/ears, etc.) in order to easily remember the medical term.

All the senses are very important but we, especially nowadays, depend heavily on our visual sense.

We must remember that our brain assigns more space to store visual information.

You can sketch an organ that is related to a medical term, say the name of the organ aloud, use the sense of motion related to this organ, and write the name of the organ several times. By using all your different senses to memorize the medical terms you will be able to remember them easily during your interpreting encounters.

### 3. USE A CATEGORIZING TECHNIQUE

Categorizing techniques involve grouping concepts based on standards that best describe all the common characteristics among all members of the group. For example, you can put body organs in an order that makes sense to you based on your understanding of the functions of every body organ.

### 4. PAST EXPERIENCES AND KNOWLEDGE

You can relate the body organs, for example, or the medical terms to your past experience or your prior knowledge. You can associate the medical word to a word or a concept that you are familiar with so that you can remember this term because of this prior knowledge association.

### 5. BE FAMILIAR WITH THE STRUCTURE OF THE MEDICAL TERMS

As you will study, you will learn that most medical terms are a combination of Greek or Latin roots, suffixes, and prefixes. When you memorize all these Greek or Latin roots, suffixes and prefixes, you will be able to know what the medical terms mean easily—even when you hear them for the first time.

### 6. MNEMONICS TECHNIQUE

The best explanation for this technique is written by the Psychologist World blog. They describe the mnemonics technique as the following:

“First things first—what are mnemonics?

.....

‘A Mnemonic is something which we can use to remember things much easier. As is often the case, it could be a phrase, a short song, or something that is quite easily remembered, that we use to remember something that would otherwise be difficult to remember. For example, we may use a phrase to remember a series of numbers, such as the mathematical Pi sequence (3.14159 etc) or an ordered list whose numbers or items are not easily memorized. Mnemonics are a way of remembering using association—associating easy to remember things with data.’”

.....

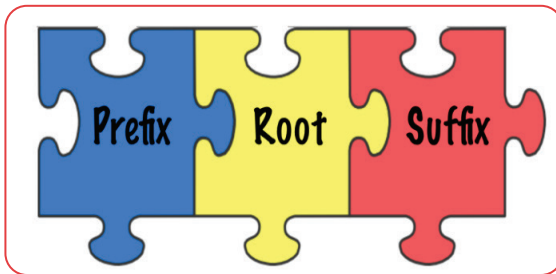
Source: <https://www.psychologistworld.com/memory/mnemonics>

## ROOTS, SUFFIXES, AND PREFIXES

### Learning Objectives:

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- ▶ By the end of this section, students will be able to know the meaning of medical terms using roots, prefixes, and suffixes.



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In order to become a fully-fledged and capable interpreter, you need to familiarize yourself with this vocabulary.

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Do not, however, let the complexity of these words and phrases intimidate you; this course will help you learn how to pick medical terms apart and extract their meanings.

### Roots

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- ▶ The best way to learn a new language is to start with the basics. In this case, we will need to memorize the Latin and Greek **roots** that dictate the meanings of medical terms.
- ▶ Roots can be considered the building blocks of medical terminology. By memorizing the meaning of each individual root, you can ascertain the meaning of the whole word.

## MEDICAL TERMINOLOGY—MEDICAL ROOTS

ROOT	MEANING	EXAMPLE
aden(o)	gland, glandular tissue	adenitis, adenotomy, adenoids, adenocarcinoma
aer(o)	air, with air, with oxygen, in gas	aerobic, aerate, aerosol, aerocele
angi(o)	blood vessel	angioplasty, angioma, angiogenesis
arteri(o)	artery	arteriopathy, arteriosclerosis, arterial
arthr(o)	Joint	arthritis, arthroscopy, arthralgia
audi(o)	Hearing	audiogram, auditory, audiology
bronch(o)	bronchial tube, bronchus	bronchoscope, bronchospasm, bronchitis
carcin(o)	Cancer	carcinogen, carcinoma, carcinogenic
cardi, cardia, cardio	Heart	cardiac, cardiotonic, cardiovascular, cardiopathy
cephal(o)	Head	cephalogram, cephalalgia, cephalic
cerebr(o)	cerebrum, brain	cerebrospinal, cerebral, cerebrovascular

ROOT	MEANING	EXAMPLE
cervic(o)	neck, cervix	cervical, cervicectomy, cervicitis
chol(e)	bile, gall	cholorrhea, cholecystogram, choleresis
chondr(o)	Cartilage	chondral, chondrotomy, hypochondriac
col(o)	Colon	colitis, colonoscopy, colectomy
cortic(o)	Cortex	corticosteroid, cortical
cost(o)	Rib	costal, intercostal, costectomy
crani(o)	skull, cranium	craniotomy, cranial
cyan(o)	blue, blueness	cyanosis
cyst(o)	Bladder	cystoscopy, cystocele, cystitis
cyt(o)	Cell	cytology, cytoplasm,
derm(o), dermat(o)	Skin	dermis, dermatologist, dermatitis
dipl(o)	double, twofold	diplopia,

ROOT	MEANING	EXAMPLE
dors(o)	Back	dorsal, dorsolateral
encephal(o)	brain, inside the head	encephalitis, encephalopathy
enter(o)	Intestine	Enteric
erythr(o)	Red	erythrocyte, erythema
gastr(o)	Stomach	gastrostomy, gastrointestinal, gastritis
ger(o)	old age	geriatric, gerontology, geratology, geroderma
gingiv(o)	gum, gums	gingivitis, gingivoplasty, gingivostomatitis
gloss(o)	Tongue	glossitis, hypoglossal,
gluc(o)	Sugar	glucose, glucagon, glucosuria
glyc(o)	sugar, sweet	hyperglycemia, glycosuria, glycogen
hemat(o)	Blood	hematoma, hematemesis, hematogenous
hepat(o)	Liver	hepatitis, hepatotoxic, hepatomegaly
hydr(o)	sweat, sweat glands	hidradenoma, hidrosis,



ROOT	MEANING	EXAMPLE
hist(o)	Tissue	histamine, histology
hyster(o)	uterus, womb	hysteroscopy, hysterectomy
immun(o)	Immune	immunodeficiency, immunization, immunity
lact(o)	Milk	lactose
laryng(o)	larynx, voice box	laryngitis, laryngospasm, laryngoscope
leuk(o)	White	leukemia, leukopenia, leukocyte
Lingu	Tongue	sublingual
lip(o)	Fat	lipid, lipoprotein, liposuction, lipoma
lith(o)	stone, calculus one who studies or specializes	nephrolithiasis, lithotripsy, urolith
melan(o)	dark pigmented, black	melanoma, melanoderma, melanogenesis
men(o)	menstruation, menses	menopause, dysmenorrhea, menorrhagia
mening(o)	Meninges	meningitis, meningococcus, meningeal
my(o)	Muscle	myocardial, myalgia, fibromyalgia

ROOT	MEANING	EXAMPLE
myc(o)	fungus, fungi	mycosis, , mycology, dermatomycosis
myel(o)	bone marrow, spinal cord	myelopathy, mieloma
nas(o)	Nose	nasal, nasosinusitis, nasogastric
nephr(o)	Kidney	nephrectomy, nephropexy, nephrolysis
neur(o)	Nerve	neurology, neurosurgery
Odont	Tooth	odontitis, odontology, orthodontist
ophthalm(o)	vision, eye	ophthalmology, ophthalmoscope
Orchi	testes, testis	cryptorchidism, orchiectomy
oste(o)	Bone	osteoporosis, osteoarthritis, osteoclast
ot(o)	Ear	otic, otitis, otalgia, otorrhea, otoplasty
phag(o)	eat, swallow, consume	dysphagia, phagocyte
pharyng(o)	Pharynx	pharyngitis, pharyngeal

ROOT	MEANING	EXAMPLE
phleb(o)	Vein	phlebitis, phlebotomy
pneum(o)	air, lung	pneumonia, pneumothorax
pod(o)	Foot	podiatrist, podiatric, podalic, podagra
presby(o)	old age	presbyopia, presbycusis, presbyophrenia
proct(o)	anus, rectum	proctitis, proctoscopy, proctology
psych(o)	mind, mental	psychology, psychotropic, psychiatry
py(o)	Pus	pyemia, empiema
pyel(o)	renal pelvis	pyelonephritis
ren(o)	Kidney	renogram, renal, renoprival
rhin(o)	Nose	rhinorrhea, rhinitis, rhinoplasty
salping(o)	fallopian tube	salpingitis
scler(o)	hard, hardening	atherosclerosis, myelosclerosis, arteriosclerosis

ROOT	MEANING	EXAMPLE
thorac(o)	chest, thorax	thoracotomy, thoracoscopy
thromb(o)	blood clot	thrombosis, thrombogenic, thrombus
thyr(o)	Thyroid	thyroxine, hypothyroidism, hyperthyroidism
urethr(o)	Urethra	urethritis, urethrotomy, urethroscope
vas(o)	blood vessel, vas deferens	vascular, vasospasm, vasectomy, vasodilator
ven(o)	Vein	venipuncture, venous, venopressor, intravenous

## AFFIXES

To add meaning to a word, you can attach an **affix**. There are three types of affixes:

- ▶ Prefixes
- ▶ Suffixes
- ▶ Infixes

It is important to remember that affixes do not *change* the meaning of words; they simply add on to the meaning of the root. Affixes are an important part of medical terminology because they allow professionals to become as specific as possible when describing body parts, processes, and symptoms.

**ACTIVITY:** Write out and memorize the three types of affixes.

**ACTIVITY:** Determine which of the four listed (prefixes, suffixes, infixes, and roots) play the most significant role in giving a word its meaning.

## SUFFIXES

A **suffix** is a small linguistic unit that can be attached to the end of the root or the word itself.

**ACTIVITY:** Practice with suffixes. Memorize the different suffixes and their meanings.

## Examples of Suffixes

- centesis**: surgical puncture
- tripsy**: crushing or breaking up
- ectomy**: surgical removal
- opsy**: looking at
- oscopy**: viewing of, normally with a scope
- ostomy or -stomy**: surgically creating a hole (a new “mouth” or “stoma”)
- otomy or -tomy**: surgical incision
- plasty**: to modify or reshape

When a suffix is attached to the root, it becomes more difficult to figure out the meaning of the word. However, remember that you should look at the *suffix* before the *root*.

**ACTIVITY:** Practice finding the meaning in words that have suffixes added to the roots.

## Examples of Root and Suffix

- Appendectomy**—append/ectomy
- Bronchitis**—bronch/itis
- Carcinoma**—carcin/oma
- Rhinorrhea**—rhino/rrhea
- Nocturia**—noct/uria

## MEDICAL TERMINOLOGY—MEDICAL SUFFIXES

A word building reference: This is a great reference to help strengthen our knowledge and mastery of medical terminology.

We can clearly see how medical terminology are created by adding suffixes.

SUFFIX	MEANING	EXAMPLE
-ache	pain	headache, backache, earache, toothache
-algia	pain	gastralgia, neuralgia, arthralgia, fibromyalgia
-ase	enzyme	protease, urease, amylase, lactase
-cele	hernia, protrusion, tumor	cystocele, meningocele, encephalocele
-centesis	surgical puncture (aspiration of fluid)	amniocentesis, arthrocentesis, paracentesis
-coccus, -cocci	bacteria, organism	pneumococcus, gonococcus
-cyte	cell	hepatocyte, leukocyte, microcyte, monocyte
-ectomy	excision, removal, to cut out	appendectomy, thrombectomy, gastrectomy
-emia	blood condition	anemia, septicemia, leukemia, uremia
-genic	producing, originating, forming	pyogenic, carcinogenic, nephrogenic

SUFFIX	MEANING	EXAMPLE
-gram	picture, graph, record	encephalogram
-graph	recording instrument	polygraph, cardiograph, craniograph
-iasis	condition of disease	trichomoniasis, giardiasis, amebiasis
-itis	inflammation	arthritis, colitis, rhinitis, bronchitis
-logist	one who studies or specializes	cardiologist, anesthesiologist, urologist
-logy	the study of	biology, gynecology, dermatology
-lysis	breakdown, destruction	urinalysis, histolysis, thrombolysis
-malacia	soft, softening, softness	osteomalacia
-megaly	enlargement	cardiomegaly, acromegaly, hepatomegaly
-metry	process of measuring	audiometry, pelvimetry
-natal	birth, infant	prenatal, intranatal, neonatal, postnatal, perinatal
-oma	tumor, abnormal growth	carcinoma, osteosarcoma, adenoma
-opia	vision, eye	myopia, presbyopia, diplopia

SUFFIX	MEANING	EXAMPLE
-osis	condition, increase	halitosis, leukocytosis, neurosis, acidosis
-pathy	disease, anomaly	neuropathy, myopathy, osteopathy
-penia	deficiency, low number	eosinopenia, thrombocytopenia, erythropenia
-pepsia	digestion	dyspepsia, eupepsia
-pexy	fixation	hysteropexy, orchiopexy, gastropexy
-phobia	fear of	hydrophobia, acrophobia, necrophobia
-plasia	development, formation	neoplasia, myelodysplasia, hyperplasia
-plasty	surgical	arthroplasty, osteoplasty, rhinoplasty
-plegia	paralysis	paraplegia, hemiplegia
-pnea	breathing, breath	apnea, tachypnea, orthopnea
-ptosis	prolapse, sagging, sagged	blepharoptosis
-rrhagia	excessive discharge or flow	menorrhagia
-rrhea	excessive	rhinorrhea



SUFFIX	MEANING	EXAMPLE
-scope	instrument used to	microscope, arthroscope, otoscope
-spasm	involuntary contraction	angiospasm, vasospasm, bronchospasm
-stomy	surgical opening	enterostomy, colostomy, gastrostomy
-tomy	incision, incise, to cut into	gastrotomy, duodenotomy, laparotomy
-trophy	growth, development	hypertrophy, hypotrophy, dystrophy
-uria	urine	pyuria, nocturia, polyuria, albuminuria

## PREFIXES

Similarly, you can add **prefixes** to the beginning of the root or word.

**ACTIVITY:** Choose the correct order of affixes and roots to determine a word's meaning.

In many cases, medical terms have both suffixes AND prefixes. It is, therefore, important to know that in such cases, you look to the suffix, the prefix, AND THEN the root to determine the complete meaning.

### Examples of Prefixes

**angio-:** related to blood vessel  
**arthr-:** related to a joint

**colono-:** related to large intestine  
 colon

**colpo-:** related to the vagina

**cysto-:** related to the bladder

**encephal-:** related to the brain

**gastr-:** related to stomach

**hepat-:** related to the liver

**hyster-:** related to the uterus

**lapar-:** related to the abdomen

**lobo-:** related to a lobe of an organ

**mammo- masto-:** related to the breast

**myo-:** related to muscle tissue

**nephro-:** related to the kidney

**oophor-:** related to the ovary

**orchid-:** related to the testicle

**rhino-:** related to the nose

**thoraco-:** related to the chest

**vas-:** related to a duct, usually the vas deferens

## MEDICAL TERMINOLOGY—MEDICAL PREFIXES

A word building reference: This is a great reference to help strengthen your knowledge and remember the medical terms easily. You can see how prefixes are added to the medical terms.

PREFIX	MEANING	EXAMPLE
a (or “an”)	without, lack of	apathy (lack of feeling), apnea (without breath), aphasia (without speech), anemia (lack of blood)
ab-	away from	abductor, aboral (away from mouth)
ad-	to, toward, near to	adductor, adhesion, adnexia, adrenal
ambi-	both	ambidextrous, ambilaterally
amphi-	on both sides, both	amphibious
ante-	before, forward, in front of	antepartum, anteflexion, anteversion
anti-	against	antihistamine, antiinflammatory, antipyretic
bi-	double, twice	biarticulate, bifocal
brady-	slow	bradycardia, bradypnea, bradyphasia

PREFIX	MEANING	EXAMPLE
dent-	tooth	dental, dentist, dentistry
dys-	difficult, abnormal, bad, painful	dysuria, dysplasia, dyspnea
end(o)-	inside, internal, within	endocrine, endoscopic
epi-	outer, upon	epidermis, epidural
eu-	normal, well, Good	euphoria, eupnea, eupepsia
extra-	outside, beyond	extravasation, extrahepatic
hemo-, hema-	Blood	hemorrhage, hemoglobin, hemostasis
hemat(o)	Blood	hematoma, hematemesi, hematogenous
hemi-	Half	hemiplegia
homo-	same, alike, similar	homologous, homogeneous
hydro-	water, fluid, liquid	hydrocephalus, hydrotherapy
hyper-	excessive, high, above, upward	hypertension, hyperglycemia, hypertonic
hypo-	deficient, low, below, down, under	hypoallergenic, hypocalcemia

PREFIX	MEANING	EXAMPLE
infra-	below, beneath	inframammary, infracardiac
inter-	between, among	Intercostal
intra-	within, inside	intravenous, intramuscular, intrarenal, intradermal
iso-	equal, same	isotonic, isometric, isomorphic
macro-	Large	macrocyte
mal-	bad, abnormal, inadequate	malnutrition, malpractice, malformed
mamm-	breast, mammary gland	mammogram, mammography,
megalo-	large, enlarged, grandiose	megal megalocyte
micro-	Small	microscope, microgram, microorganism
non-	Not	nonsteroidal, nontoxic
onco-	Tumor	oncology, oncogenic, oncogene,
onych-	nail of the finger or toe	onychectomy
opt-	vision, eye	optician, optical, optometry

PREFIX	MEANING	EXAMPLE
peri-	near, around, surrounding	pericardium, periodontal, perineurium
poly-	much, many, several, excessive	polyuria, polycystic, polyarthritis
post-	After	postnatal, postcoronary, postoperative
pre-	before, in front of	prenatal, preoperative, premature,
pulmon-	Lung	pulmonary, pulmonology, pneumonectomy
pyr-, pyro-	fever, heat	pyrogen
retro-	behind, backward, in back of	retroocular, retrocolic, retroflexion, retrolental
sub-	under, beneath, below	sublingual, subcutaneous, subcostal
tachy-	fast, rapid	tachypnea, tachycardia, tachyarrhythmia
toxi-	Poison	toxic, toxicology, toxicity
trache-	trachea, windpipe	tracheitis, tracheoscopy, tracheostomy
trans-	across, over, through	transdermal, transfusion, transurethral

## Combining Vowel

In order to attach roots and affixes, it is common practice to insert a vowel, typically an *o*, between the two linguistic blocks in question.

We will refer to this vowel as the **combining vowel** for the remainder of this course. This vowel typically attaches to the end of the root.

### ▶ EXAMPLE #1:

The medical term: myoelectric = my/o/  
electr/ic

The root is = my

Combining vowel is = o

Another Root is = electr

Suffix = ic

Note: root + vowel = combining form; my  
+ o = myo

### ▶ EXAMPLE #2

The medical term: megalocardia =  
megal/o/card/ia

Combining vowel here is = o

The root is = card

The suffix is = ia

Remember that the medical term cannot be megal/o/card/o so we must drop the combining vowel = o. Then, we must add a suffix as an ending = ia

## Combining Form

Together, the root and combining vowel make up the **Combining Form**.

**ACTIVITY:** Memorization of combining forms.

**Medical interpreters need to know the combining form.**

**ACTIVITY:** Distinguish between the root and the combining vowel in the combining forms.

## HIGH AND LOW REGISTERS

An important and relevant concept to medical terminology is **register**.

- ▶ Register refers to the social and grammatical form of a language that we use.
- ▶ Register is dependent on many factors, including location and audience.

Interpreters must always maintain the register of the people for whom they are interpreting; use formal language (high register) when the doctor uses formal language. Similarly, directly interpret the colloquial phrases of the patient.

- ▶ **High-register** language is formal and professional. It is typically used in professional settings that require in-depth knowledge of the subject at hand.
- ▶ **Low-register** language is the language that we use with our friends and family; it is the colloquial and informal form of speech that we use in familiar and comfortable settings.

**ACTIVITY:** Practice interpreting while keeping both patient and staff registers in mind.

## Rules to Follow

- ▶ Most Latin and Greek roots are accompanied by either a prefix or suffix.
- ▶ To properly read the meaning of a medical term, look at the suffix, prefix, and then root consecutively.
- ▶ In order to attach two roots or a root and an affix, it is common practice to insert a vowel—usually an *o*—between the two linguistic blocks.
- ▶ Ignore extra letters that appear in certain terms; instead, focus on the roots and affixes.
- ▶ It is recommended not to change from a designated register during an interpretation session; interpret in the register of the individual who is talking (doctor, patient, etc.).
- ▶ The more roots and affixes you memorize, the easier it becomes to interpret without needing to reference bilingual dictionaries and thesauri.

## VOCABULARY LIST

**MEDICAL TERMINOLOGY:** Medical terminology is a linguistic store of phrases and words that specialized individuals use to discuss the body—its parts, processes, and diseases—and the professionals who take care of it.

**ROOT:** The block of letters, or linguistic unit, that provides us with the core meaning of



a word. The roots of medical terms are typically either Latin or Greek.

**AFFIX:** An affix is a small linguistic unit that adds to the meaning of the vocabulary. We have three different kinds of affixes:

- ▶ Suffixes
- ▶ Prefixes
- ▶ Infixes

**SUFFIX:** A suffix is a small linguistic unit that can be attached to the root or the end of a word.

**PREFIX:** A prefix is a small linguistic unit that can be attached to the beginning of a word or its root.

**INFIX:** An infix is a small linguistic unit that can be inserted into a word. While suffixes and prefixes have a common place in medical terminology, infixes are rare.

**COMBINING VOWEL:** This vowel, usually an o, is inserted between two roots or a root and an affix.

**COMBINING FORM:** The combining form is the root and the attached vowel that enables us to add affixes.

**HIGH-REGISTER:** High register language is the form of language that we use in formal and professional settings. It is complex in nature and often used to discuss specialized fields.

**LOW-REGISTER:** Low register language is informal and colloquial. It is less strict in grammatical form and is often used in informal, comfortable settings.

## SURGICAL PROCEDURE TERMS



Many diseases and disorders of the body require surgical treatment. Some examples of surgical procedure terms include:

The suffix “**-ectomy**”—related to (cutting out). It refers to the surgical removal of a body part or some other thing.

### ▶ EXAMPLES OF THE SUFFIX “-ectomy”

Adenectomy—related to the surgical removal of a gland;

Adrenalectomy—associated with the surgical removal of adrenal glands;

Appendectomy—associated with the surgical removal of the appendix;

Arthrorectomy—associated with the surgical removal of a body joint.

The suffix “**-otomy**” refers to the medical procedure of cutting into an organ or a body part. For example, the medical term laparotomy refers to the medical procedure of cutting through the abdominal wall so the surgeon can have full access to the patient’s abdomen.

The suffix “**-oscopy**” is related to the minimally invasive (small incision) procedures that the doctor will perform during their medical procedures. For example, laparoscopy refers to the surgical procedure that the doctors perform so they can examine the abdominal organs of the patient.

The suffix “**-ostomy**” is related to a permanent or semi-permanent opening in the patient’s body. For example, colostomy refers to the surgical procedure that is performed by the doctors so they can bring an end of the patient’s large intestine out through the patient’s abdominal wall.

The suffix “**-oplasty**” refers to plastic or cosmetic surgery. For example, the medical term rhinoplasty means the cosmetic surgery for a patient’s nose.





## INTRODUCTION TO BODY SYSTEMS

**W**e will focus on how doctors in the United States (U.S.) look at body systems through the lens of American biomedical culture. Our **body systems** are groups of organs and tissues that function all together to perform vital jobs for our body. It is important to note that some organs can be part of more than one body system if these organs perform more than one role in our body.

Since U.S. biomedical culture focuses on what is wrong and how to fix it, we will first look at each body system's **anatomy**, introducing body part names and explaining the structure of that body or system. Then, we will talk about the **physiology**, or function, of that body part or system. Next, we will talk about **diagnoses** (meaning how a doctor classifies an illness in a patient) and **treatments** that doctors prescribe. We will also talk about the **specialists** related to that body or system. Specialists are

doctors who are highly trained in a particular branch of medicine.

### **An important observation about interpreting medical terminology:**

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Doctors use many acronyms, or abbreviations. PT is a physical therapist, but when a physical therapist states to a patient he is a PT, it is important for the interpreter to interpret meaning, and not words. Therefore, the interpreter will interpret PT as 'physical therapist' and not 'PT', which does not mean physical therapist in most languages. Please keep this in mind when you are interpreting. Our roleplays will include these abbreviations, so remember to interpret their meaning and not simply repeat letters such as 'PT' because that will not mean anything to the patient. In summary, memorizing and practicing how to interpret abbreviations and acronyms in healthcare is very important.

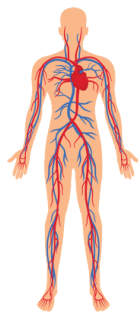
Now that we've learned a little bit about how medical words work, it's time to look at their real-world applications.

The most important use for medical terms, of course, is to describe the human

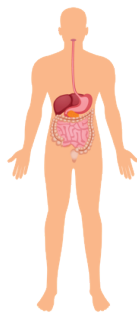
body and all of its parts, aches, pains, diagnosis, procedures, etc .

This chapter will focus on 11 body systems and their roles in the functioning of the human body.

## HUMAN BODY ORGAN SYSTEMS



Circulatory system



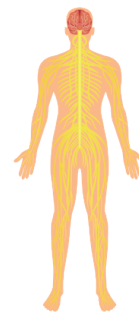
Digestive System



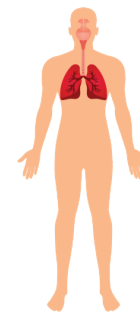
Muscular System



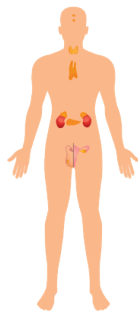
Skeletal system



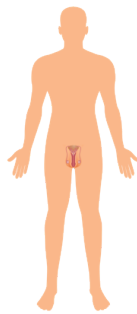
Nervous System



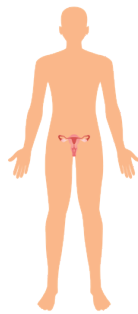
Respiratory system



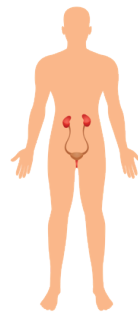
Endocrine System



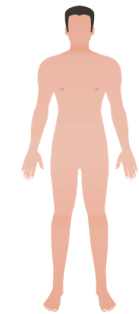
Male Reproductive System



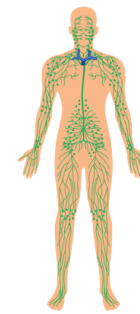
Female Reproductive System



Urinary System



Integumentary System



Lymphatic System

### LIST OF BODY SYSTEMS

1. The **Cardiovascular System** carries blood and oxygen throughout the body.
2. The **Digestive System** enables us to intake and process energy and nutrients from our food.
3. The **Musculoskeletal System** enables us to move and provides us with protection and support.
4. The **Nervous System** controls the body by sending and receiving information via neurons.
5. The **Respiratory System** allows us to inhale and exhale pertinent gases.

6. The **Endocrine System** secretes hormones that regulate the body.
7. The **Female Reproductive System** produces eggs and facilitates procreation.
8. The **Male Reproductive System** produces sperm and facilitates procreation.
9. The **Urinary System** produces, stores, and expels urine from the body.
10. The **Integumentary System** covers and protects the body.
11. Finally, the **Lymphatic System** aids our immune system by carrying disease-fighting cells throughout the body.

For each body system, we will be describing the **anatomy**, or individual body parts, the **physiology**, or functions of these parts, and the **pathology**, or illnesses of each body system.

## VOCABULARY LIST

**ANATOMY**—Individual part/organ of the body.

**PHYSIOLOGY**—Function of each body part.

**PATHOLOGY**—Illnesses/diseases that affect each body system and its parts.

.....

**Activities:** How many body systems will we be studying in this chapter? Can you remember each of their names? What is the difference between anatomy, physiology, and pathology?

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## QUESTIONS

- ▶ Can you name all 11 of the body systems that we will discuss in this chapter?
- ▶ Do you have a basic understanding of the purpose/function of each of these body systems?
- ▶ Please take the time to memorize the basic functions of these systems before we move onto the detailed examination of each.