

King Abdulaziz University
Applied Collage
Health Information technology (HIT)
Diploma of sterilization Program



Medical Terminology I (ACHS 101)

Course Objectives



- Recognize the essential medical terminology necessary to properly describe the fundamental relationships and orientation of structures in the human body.
- Explain the importance of medical terminology for central services technicians.
- Identify the various elements used in medical terminology including prefixes, root words, and suffixes.
- Differentiate unusual singular and plural endings used in medical terms.



Course Objectives

- Discuss how the medical terminology can refer to the human anatomy, disease, disorders, abnormal conditions, surgical procedures, surgical instruments, medical devices and medical specialties, medical specialists etc.
- Explain the importance of medical terminology for microbiology, for service quality in the operating room and surgeries.
- Recognize, define, spell, and correctly pronounce the primary terms introduced in this course.



Marks distribution

- 30 Marks Midterm Exam
- 30 Marks graded assignment
- 40 Marks Final Exam



Chapter 1: Introduction to Medical Terminology

Introduction

- The word or terms which make up the language of medicine are referred to as terminology of the medical field and known as **medical terminology**.



Medical Terminology Definition

Medical terminology: is the language that is used to accurately describe the human body and associated components, conditions, processes and procedures in a science-based manner.

عنه هو لغة

- **Medical terminology** are made up of components that are derived mostly from *Latin* or

Greek.

أغريقية

لاتينية



BASIC ELEMENTS OF A MEDICAL WORD



الاعتماد
الاساسي

Language of Medicine

- Specialized vocabulary used by health care providers
- Medical words composed of word elements, also known as *word parts*, and consisting of some or all of 4 word parts
- Analysis of words will make medical terminology easier to understand and remember.

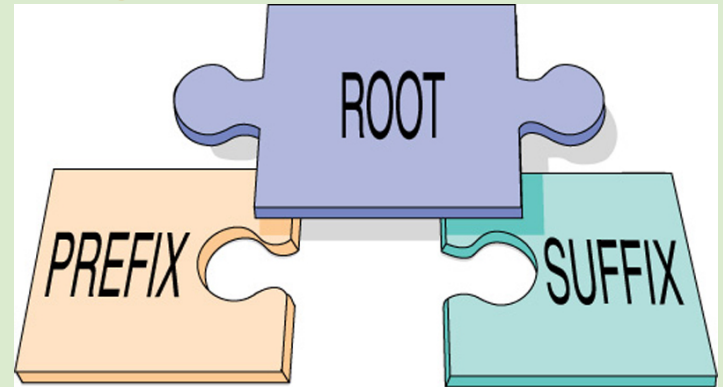


Introduction to Word Parts

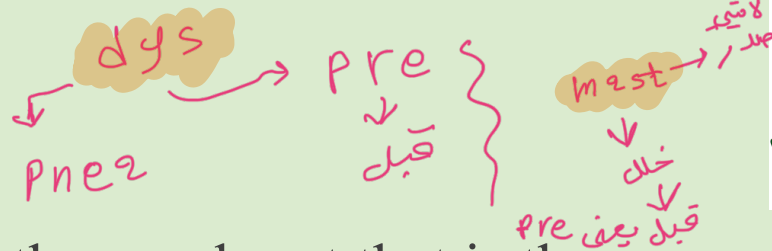


4 BASIC WORD PARTS

- جذر الكلمة **Root word:** the core of the word
- قبل الكلمة **Prefixes:** the beginning of the word Pre
- بعد الكلمة **Suffix:** the end of the word
- اللاحق **Combining vowel:** usually an “O”
أولها



Word Root



- The word root is the word part that is the core of the word.
- It is the foundation of the word that contains its main meaning.
- The word root usually refers to a body part.
- At least one word root in most medical words.
- It can be combined with another root, with prefixes and/or suffixes.

Handwritten Arabic text: "على الأقل" (at least)

Word Roots/Indicating Color

Cyan
means
blue

Roots

Cyanosis (sigh-ah-NOH-sis) 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).

Erythr/o
means *red*

Roots

erythrocyte (eh-RITH-roh-sight) is a mature red blood cell (**erythr/o** means red, and **-cyte** means cell).

Leuk/o
means
white

Roots

leukocyte (LOO-koh-sight) is a white blood cell (**leuk/o** means white, and **-cyte** means cell).

Melan
means
black

Melanosis (mel-ah-NOH-sis) is any condition of unusual deposits of black pigment in body tissues or organs (**melan** means black, and **-osis** means abnormal condition or disease).

Poli/o
means
gray

Polio myelitis (poh-lee-oh-my-eh-LYE-tis) is a viral infection of the gray matter of the spinal cord (**poli/o** means gray, **myel** means spinal cord, and **-itis** means inflammation).

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.

Greek or Latin Word	Word Root	Meaning	Word Analysis
dermatos (Gr*)	derm دِرم	skin سِکِن	dermat/itis (dĕr-mă-Tĭ-tĭs): inflammation of the skin <i>A term that describes a skin disease</i>
nephros (Gr)	neph نِيف	kidney کِڈِن	neph/oma (nĕ-FRŌ-mă): tumor of the kidney <i>A term that describes a kidney disease</i>
stoma (Gr)	stomat سِٹَام	mouth مَوتْ	stomat/o/pathy (stō-mă-TŌP-ă-thē): any disease of the mouth <i>A term that describes a mouth disease</i>
cutis (L)	cutane کِٹَانِ	skin سِکِن	sub/cutane/ous (sŭb-kŭ-TĀ-nē-ŭs): beneath the skin <i>A term that describes the anatomic tissue layer beneath the skin</i>
oris (L)	or اُور	mouth مَوتْ	or/al (OR-ăl): pertaining to the mouth <i>A term that describes an anatomic structure</i>
renes (L)	ren رِن	kidney کِڈِن	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.

Prefixes



البداية



- 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.



An example to show how prefixes change the meaning of the term: the term **natal** (NAY-tal) means **pertaining to birth** (**nat** means birth, and **-al** means pertaining to).

- **Prenatal** (pre-NAY-tal) 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, nat means birth, and -al means pertaining to).

This is the time just before, during, and just after birth.

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.

Prefix	+	Word Root	+	Suffix	=	Medical Word	Meaning
a- (without) <i>بعون</i>	+	mast (breast) <i>صدر</i>	+	-ia (condition) <i>حالة</i>	=	amastia ă-MĀS-tē-ă	without a breast
hyper- (excessive, above normal) <i>ارتفاع</i>	+	therm (heat) <i>حرارة</i>	+	-ia (condition) <i>حالة</i>	=	hyperthermia hī-pĕr-THĒR-mē-ă	condition of excessive heat
intra- (in, within) <i>داخل</i>	+	muscul (muscle) <i>عضلات</i>	+	-ar (relating to) <i>الذي له صلة</i>	=	intramuscular ĭn-tră-MŪS-kŭ-lăr	within the muscle
macro- (large) <i>كبير</i>	+	card (heart) <i>قلبك</i>	+	-ia (condition) <i>حالة</i>	=	macrocardia măk-rō-KĀR-dē-ă	condition of a large heart
micro- (small) <i>صغير</i>	+	card (heart) <i>قلبك</i>	+	-ia (condition) <i>حالة</i>	=	microcardia mī-křō-KĀR-dē-ă	condition of a small heart

الانتهاء

Suffix



- The suffix is a word part attached to the end of the word root to modify its meaning
- Changes the meaning of a medical word
- Contained in most medical words
- Usually an indication of a pathology, condition, symptom, therapeutic or diagnostic procedure, or part of speech

Suffixes

In the terms tonsill/itis, and tonsill/ectomy, the suffixes are

-itis (inflammation)

and -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.

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.

Combining Form	+	Suffix	=	Medical Word	Meaning
gastr/o (stomach) المعدة	+	-itis (inflammation)	=	gastritis gās-TRI-tīs	inflammation of the stomach
	+	-megaly (enlargement)	=	gastromegaly gās-trō-MĒG-ā-lē	enlargement of the stomach
	+	-oma (tumor)	=	gastroma gās-TRŌ-mă	tumor of the stomach
hepat/o (liver) كبد	+	-itis (inflammation)	=	hepatitis hĕp-ā-TĪ-tīs	inflammation of the liver
	+	-megaly (enlargement)	=	hepatomegaly hĕp-ā-tō-MĒG-ā-lē	enlargement of the liver
	+	-oma (tumor)	=	hepatoma hĕp-ā-TŌ-mă	tumor of the liver

Combining Vowel

- The combining vowel is a word part, usually an “o” and is used:
- – between word roots
- – between a word root & a suffix to ease pronunciation

Example:– thermometer = therm /**o**/ meter

– arthropathy = arthr /**o**/ pathy

- Oste/**o**/arthr /itis



Rules for using combining vowels

A combining vowel is used when the suffix begins with a consonant.

قواعد الـ o

•E.g. The word **Neuroplasty** (NEW-roh-plas-tee).

عصب **Neur/o** (nerve).....**root** is joined with **-plasty** (surgical repair)**suffix**

يُجِبِّي قَبْلُ فِي إِذَا كَانَ يَبْدَأُ
بِحُرُوفٍ غَيْرِ حُرُوفِ الْهَلَاءِ
تَصْلُحُ جَرَاحِي

- The combining vowel “**o**” is used because -plasty begins with a consonant.
- Neuroplasty is **the surgical repair of a nerve.**

A combining vowel is not used when the suffix begins with a vowel (a, e, i, o, u).

- E.g. in the word **Neuritis** (new-RYE-tis).

- **Neur/o** (nerve) **Root** is joined with **-itis** (inflammation).....**Suffix**.
- No combining vowel is used because **-itis** begins with a vowel.
- Neuritis **is inflammation of a nerve or nerves.**

A combining vowel is used when two or more word roots are joined.

• Eg. **Gastroenteritis** (gas-troh-en-ter-EYE-tis) combines two word roots with a suffix.

• **Gastr/o** (stomach) root

• **enter/o** (small intestine) root

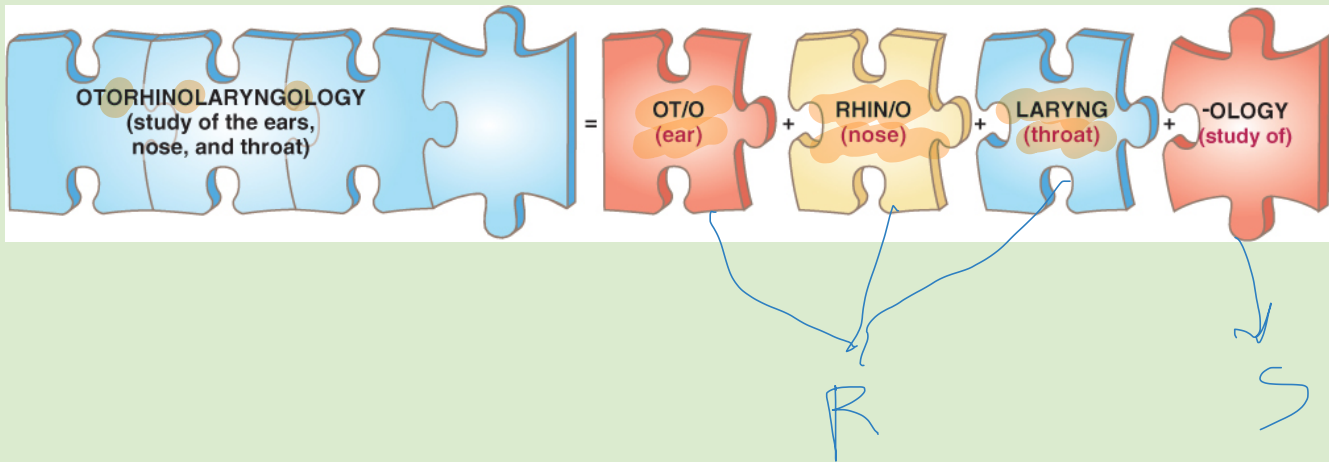
• **O** a combining vowel used with **gastr/o**

• A combining vowel is not used with **enter** because it is joining the suffix **-itis** (inflammation), which begins with a vowel.

• Gastroenteritis is an inflammation of the stomach and small intestine.

Combining Forms:

- An example to take apart:





Combining form

(word root + combining vowel)

- A combining form is a **word root** with the combining **vowel** attached, separated by a vertical slash

- It is not a word part, rather it is the association of the word root and the combining vowel.

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.

o / e / o

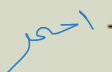
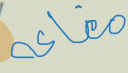
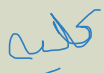
Word root

Combining
vowel

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 *neph* are difficult to pronounce, whereas their combining forms *gastr/o* and *neph/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
neph/ 	+	<i>o</i>	=	neph/o	kidney
oste/ 	+	<i>o</i>	=	oste/o	bone

Rules for defining medical words

To analyze a medical term divide it into word parts then label each word part.

Here are 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 (Cont.)

- When you analyze *gastroenteritis* following the previous rules, the meaning is revealed as:
 1. inflammation (of) → التهاب
 2. stomach (and) → معدة
 3. intestine → أمعاء
- Thus, the definition of *gastr o enter itis* is “inflammation (of) stomach (and) intestine.”

Rules for Building Medical Words

There are three basic rules for building medical words.

- **Rule 1:** word root links a suffix that begins with a vowel.
- **Rule 2:** 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.

Roots

Root	Meaning	Example	Definition of Example
Aden/o أدين	Gland غده	Adenoma	tumor of gland ورم
Algesi/o	Excessive → المفرط sensitivity to حساسية pain → فرط الحساسية للألم	Analgesia	Without pain انعدام الألم
* Angi/o انجيو	Vessel الأوعية	Angioplasty تدخل جراحي	Surgical repair of a blood vessel الأوعية الدموية استئصال عيبه
Arteri/o شريان	Artery	Arteriosclerosis تصلب س	Hardening of an artery
Arthr/o *	Joint	Arthroscope منظار مستعمل	Instrument for examining the joint
Audio/o	Hearing	Audio ^o logist	Specialist in the study and treatment of hearing disorders
Bio حياء	Life	Biopsy	Removal and examination of living tissue
Brachi/o	Arm	Ante-brachium	Forearm

*

كارسين

Root	Meaning	Example	Definition of Example
* Bronch/o Bronchi/o	Bronchus	Broncho Bronchiectasis	Originating in a bronchus Chronic dilation of the bronchi
Carcin/o	Cancer	Carcinogen	Agent that causes cancer
Cardi/o	Heart	Cardiomyopathy	Any disease affecting the heart muscle
Cerebr/o	Brain	Cerebrospinal	Pertaining to the brain and spinal cord
* Cephal/o	Head	Hydrocephalus	Accumulation of excess cerebrospinal fluid in the brain
Cervic/o	Neck, Cervix	Cervical	Pertaining to the neck or cervix
Chol/e	Bile	Cholelithiasis	Presence or formation of gall stone

السنب
القصبات

سرطان
كافور

قلب

المخ والأحبل الشوكي

الرقبة
والعنق

الممرارة

Root	Meaning	Example	Definition of Example
Cholecyst/o مرارة	Gall-bladder	Cholecystectomy	Surgical removal of the gall bladder
Chondr/o الغضاب	Cartilage	Endochondral	Located within cartilage
Col/o	Colon قولون	Colostomy فتحة في جدار القولون	Surgical formation of an opening between the colon and the surface of the body
Cost/o	Rib الضلوع	Intercostal	Between the ribs
Cranio/o	Skull الجمجمة	Craniotomy	Surgery on the cranium
Cyst/	Sac, Bladder كيس أو المثانة	Cystitis	Inflammation of the urinary bladder
Cyt/o	Cell خلية	Cytology	Study of cells

Root	Meaning	Example	Definition of Example
Dent/o	tooth	Dentist	Doctor specialized in teeth, gums and mouth
Derm, Dermat/o	Skin جلد	Hypodermic	Beneath the skin
Enter/o	Intestine	Enterotoxin	Toxin that acts on the cells lining the intestine
Encephal/o	Brain	Encephalitis	Inflammation of the brain
Gastr/o معدة	Stomach	Epigastric	Above the stomach
Gloss/o لسان	Tongue	Hypoglossal	Under the tongue
Hem/o دم Hemat/o	Blood	-Hemoglobin -Hematoma	- The pigment that carries oxygen in red blood cells - Localized collection of clotted blood
Hepat/o کبد	Liver	Hepatomegaly	Enlargement of the liver

Root	Meaning	Example	Definition of Example
Hydro محب	Water, Fluid	Hydrophilic	Absorbing water
Hyster/o الرحم	Uterus	Hysterectomy	Surgical removal of the uterus
Ile/o	Ileum	Ileocecal	Pertaining the ileum and cecum
Lith/o الحجارة الغدة المغابية	Stone	Nephrolithiasis	Stone in the kidney
Lymph/o	Lymph العصب	Lymphadenopathy	Disease of lymph node
Mast/o صدر	Breast	Mastectomy	Surgical removal of the breast
Mening/o الغشاء المخخ	Meninges	Meningocele	Hernia of meninges
Metr/o	Uterus البطانة للرحم مداخل	Endometrium	Lining of the uterus

Root	Meaning	Example	Definition of Example
Necr/o	Death موت	Necrosis	Death of tissue
My/o عضلة	Muscle	Myofiber	Muscle cell
Nas/o أنف	Nose	Paranasal	Near the nose
Neur/o	Nerve مرض في الأعصاب	Neuralgia	Pain in the nerve
Nephr/o	Kidney كلية	Hydronephrosis	Accumulation of fluids in the renal pelvis
Ocul/o	Eye مشكلة في العين	Oculometer	Pertaining to eye movement
Onc/o	Tumor, Swelling	Oncolytic	Destructive for tumor cells
Ophthalm/o	Eye	Exophthalmia	Protrusion of the eye ball
Ovari/o	Ovary	Ovariorrhexis	Rupture of an ovary

Root	Meaning	Example	Definition of Example
Pancreat/o	البنكرياس Pancreas	Pancreatitis	Inflammation of pancreas
Path/o	Disease	Pathology	Study of the diseases
Psych/o	Mind	Psychogenic	Of mental or emotional origin
Phleb/o	Vein	Phlebotomist	Specialist in drawing blood from vein
Pneum/o	Lung, Air, Breathing	Pneumothorax	Accumulation of the air in the pleural space
Pneumon/o		الرئوي Pneumonitis	Inflammation of the lung
Proct/o	Rectum	Proctoscopy	Endoscopic examination of the rectum
Py/o	تجويف Pus	Empyema	Accumulation of pus in a body cavity

Root	Meaning	Example	Definition of Example
Pyel/o	Pelvis, Renal pelvis تصوير بالاشعة	Pyel ography	X-ray study of the renal pelvis
Pylor/o	Pylorus بوابه المعدة	Pylor ospasm	Spasm of the pylorus
Ren/o	Kidney	Supra ren al	Above the kidney
Rhin/o	Nose	Rhin orrhea	Discharge of thin mucus from the nose
Salping/o	Tube	Salping ectomy	Surgical removal of the Fallopian tube
Scler/o	Hardening تصلب في الشرايين	Arterio scler osis	Hardening of the arteries
Splen/o	Spleen كبد حليمه الاسبيرين	Splen ectomy	Removal of the spleen

Root	Meaning	Example	Definition of Example
Thromb/o	Blood Clot	Thrombosis	presence of a blood clot
Tox/o, Toxic/o	Poison	Toxicology	The study of poisons
Trache/o	Trachea	Tracheostomy	Surgical creation of an opening into the trachea
Ureter/o	Ureter	Ureterectasis	Dilation of the ureter
Urethra/o	Urethra	Urethrostenosis	Narrowing of the urethra
Ur/o	Urine	Anuria	Lack of urine formation
Vas/o	Vessel, Duct	Vasomotor	Pertaining to changes in the diameter of a vessel

Prefixes

Prefixes categories

- Prefixes of time or speed
- Prefixes of direction
- Prefixes of position
- Prefixes of size or number
- Prefixes of negation

مشرق

مشرق

مشرق

Prefixes of Time or Speed

ج c → قو قو
near → عدد

	Prefix	Refers to	Example	Meaning
قبل	ante-, pre-	before	- ante partum, - pre mature	-before birth -before full development
بعد	post-	after	post partum	After birth
بطيء	brady-	Slow	brady cardia	abnormally slow heartbeat
سريع	tachy-	rapid	tachy cardia	Abnormally fast heartbeat
	Neo-	new	neo natal	newborn

Prefixes of Direction

Prefix	Refers to	Example	Meaning
Ab- قريب	Away from, outside of, beyond	abnormal	Away from normal
Ad- بعير	toward, near to	Addiction	drawn toward or a strong dependence on a drug or substance.
Contra- ضد	Against	Contraception	Against conception

ضد
عائق

Prefixes of Position

	Prefix	Refers to	Example	Meaning
فوق	Epi, Supra	upon, above	- Epi gastric - Supra renal	- Above the stomach - Above the kidney
دَحَنَ	Infra	below	infra renal	Below the kidneys
بَيْنَ	Inter	between	inter aosseous	Between bones
فِي الْاِخْل	intra	Inside, within	intra cerebral	Inside the cerebrum
الرَّفَعَاءُ	Hypo	Low, below	hypo tension	Low blood pressure
انخفاض	hyper	High, above	hyper glycemia	High blood sugar

Prefixes of Position

Prefix	Refers to	Example	Meaning
Ec-, ecto, ex-, exo-	outside تحول خارج الرئتين	- Extrapulmonary -Ectopic	-Outside the lung -Outside normal position
In-/ Im-	In, within منته عليه تصغير زفير	Inhale	To breath in
Intra-	Within, inside	-Intracranial -Intramascular	-Within the skull - Within the muscle
Endo-	Inside, within داخلة	endoscopy	Visual examination of some part of the body
Exrtra-	beyond خارجي	extracellular	Outside the cells

Prefixes of size and number

	Prefix	Refers to	Example	Meaning
1 واحدی	Mono-, Uni-	One	-Monocyte -Unicellular	-Cell with one neucleus -Having one cell
2 دوگنا	Bi-, Di-, dipl/o-	<u>Two</u> , twice	-Diplopia	Double vision
3 تری	tri-	three	triceps	three-headed muscle
4 چار	quadri-	Four	quadriplegia	paralysis of all four limbs
5 نصفی	Hemi-, Semi-	Half	hemiplegia	Paralysis of one body side
6 شامل	pan-	all	pancarditis	whole heart inflammation
7 کثیر	poly-	Many	Polyuria	Much amount of urine
8 کم	Olig/o-	Little, deficiency	Oliguria	Decreased amount of urine
9 چھوٹا	micro-	small	microscope	instrument to view small objects
10 بڑا	macro-, Mega, Megalo	Big, large	- Macrocyte - Megalocyte	big or large cell
	pan-	all	pancarditis	whole heart inflammation

Prefixes of negation

(Negation means absence or opposite of something)

Prefix	Refers to	Example	Meaning
a-, an-	not نہ	anuria	No urine
In-/ Im-	Not	- Indigestion - Impermeable	- Incomplete digestion - Unable to be penetrated
Un-	Not	Unconscious	No awareness
Non-	Not	Nontoxic	Not poisonous
anti-	against, opposed	antibiotic	drug that inhibits microbes
de-	without	dehumidification	Removing water
dis-	remove	Disinfect	Remove infectious organism

جائزہ

استعمال

استعمال

pathy → صرف →
↓
بہ

Prefix	Refers to	Example	Meaning
Heter-	Other, different	Heterosexual	Pertaining to the opposite sex
Homo- Homeo	Same	Homograft	Transplant of tissue from the same species
Dys-	Abnormal, difficult, painful	Dyspnea	Difficult painful breathing
Eu-	Normal, good, true	Eupnea	Normal breathing
Mal-	Bad, poor	Malnutrition	Poor nutrition

مختلف

نقل
من نفس
النوع

طبيعي
سوي

الف

Suffixes

Categories of Suffixes

- Signify a medical condition.
- Signify a diagnostic term, test information, or surgical procedure.
- Name a medical practice or practitioner.
- Convert a noun to an adjective.

megaly → زَمْخَم

itis → التهاب

ic → حَاجَة فِي الْكَبِير

Suffixes Signifying Medical Conditions

Suffix	Meaning	Example	Meaning of the Example
-algia,	pain ألم	arthralgia	pain in a joint
-emesis	vomiting تقيؤ	hematemesis	vomiting of blood
-emia دم	blood	uremia	urea in the blood
-lysis تكسير	Breaking down, Destruction	hemolysis	Destruction of red blood Cells
-ism,ion	a condition of, a process, or a state of الحالة	hypothyroidism	Condition characterized by decrease thyroid hormone
-osis, - ago, - esis, -ia, iasis اضطراب	abnormal condition or disease	-Diuresis	Increased output of urine
-stenosis تضيق	narrowing	arteriostenosis	narrowed arteries
-itis التهاب	inflammation	Gastritis	an inflammation of the stomach
-malacia	softening	osteomalacia	softening of the bones

Suffixes Signifying Medical Conditions

Suffix	Meaning	Example	Meaning of the Example
-megaly	enlargement	hepatomegaly	enlargement of the liver
-Phasia	Speech	Aphasia	No speech
-phagia	Eating	Dysphagia	Difficulty in swallowing
-oma	tumor	gastroma	tumor of the stomach
-pathy	disease	myopathy	disease of the muscle
-phobia	fear	carcinophobia	fear of cancer
-plasia	Abnormal formation	neoplasia	abnormal growth of cells
-paresis	Weakness	Paraparesis	Weakness of both legs
-plegia	paralysis	hemiplegia	paralysis on one side of the body
-pnea	breathing	tachypnea	rapid breathing

Suffixes Signifying Medical Conditions



	Suffix	Meaning	Example	Meaning of the Example
تقليل الحجم	-penia	reduction of size or quantity	leukopenia	low number of white blood cells
النزوح الخارج	-ptosis	downward displacement	nephroptosis	Downward displacement of the kidney
نزيف	-rrhage	flowing forth	hemorrhage	Discharge of blood from blood vessels
تفريغ	-rrhea	discharge	rhinorrhea	discharge from the nose
صلابة	-sclerosis	hardness	atherosclerosis	hardening of the arteries
تشنج	-spasm	muscular contraction	angiospasm	muscular contraction of a vessel
البول	-uresis	Urination	Diuresis	Elimination of large amount of urine
بول	-uria	Urine	Hematuria	Presence of blood in urine

Suffixes Signifying Diagnostic Terms, Test Information, or Surgical Procedures



Suffix	Meaning	Example	Meaning of the Example
-centesis	surgical puncture to remove fluid	thoracentesis	Surgical puncture of the thorax to remove fluid
-gen, -genic, -genesis	origin, producing	- Osteogenic - Pathogen	- Producing bone - Producing disease
-gram	Record	electrocardiogram	Record produced by electrocardiogram
-graph	Recording instrument	electrocardiograph	instrument for making a recording of heart activity

Suffixes Signifying Diagnostic Terms, Test Information, or Surgical Procedures

Suffix	Meaning	Example	Meaning of the Example
-meter قياس	Measuring instrument	audiometer	instrument for measuring hearing
-plasty تصليح	surgical repair	rhinoplasty	surgical repair of the nose
-scope منظار أو منسكوب	instrument for viewing	arthroscope	instrument for viewing the joint
-scopy	act of viewing	arthroscopy	viewing the joint
-stomy	artificial or surgical opening	tracheostomy	surgical opening of the trachea
-tomy	Incision, surgical opening	colotomy	Incision into the thorax
-tripsy	crushing	-lithotripsy	Crushing of stone

Suffixes That Name a Medical Practice or Practitioner



Suffix	Meaning	Example	Meaning of the Example
-iatrics, -iatry, -ics	medical specialty	- pediatrics - Psychiatry - Orthopedics	- Specialty of children - Specialty of psychological condition - Specialty of bone
-ian	specialist	dietician	Specialist in nutrition
-ist - ologist	Specialist in a field of study	orthopedist	Specialist in diagnosing and treating the bone
-logy	study of	nephrology	Study of the kidney



Suffixes That Denote Adjectives

Suffix			Meaning	Example	Meaning of the Example
-ac	-iatric	-ic	pertaining to, it change the word root into an adjective.	cardiac	pertaining to the heart (cardi means heart, and -ac means pertaining to)
-al	-ous	-tic			
-eal	-eous	-ical			
-an	-ular	-oid			
-iac	-ary	-otic			
-us	-ory	-ous			
-ar	-eal				
-ior					



Suffixes as Noun Endings

A **noun** is a word that is the name of a person, place, or thing.

In medical terminology, some suffixes **change the word root into a noun**.

Suffix	Meaning	Example	Meaning of the Example
-a	noun ending	Erythema	Redness of the skin due to capillary dilation (erythem means flushed, and -a is a noun ending).
-axis		Pleurisy (pleuritic)	Inflammation of the pleura (membrane surrounding the lungs) (pleur means pleura, and -isy is a noun ending).
-e			
-			
-y/isy			
-ism			
-um	singular noun ending	Endometrium	The inner layer of the uterus, consists of specialized epithelial mucosa that is rich in blood vessels
-us		Embolus	A foreign object (such as a blood clot, quantity of air or gas, or a bit of tissue or tumor that is circulating in the blood)

