

Suffixes:

A suffix is a word ending that modifies a root. A suffix may indicate that the word is a noun or an adjective and often determines how the definition of the word will begin. For example, using the root *myel/o*, meaning “bone marrow,” the adjective ending *-oid* forms the word *myeloid*, which means “like or pertaining to bone marrow.” The ending *-oma* produces *myeloma*, which is a tumor of the bone marrow. Adding another root, *gen*, which represents genesis or origin, and the adjective ending *-ous* forms the word *myelogenous*, meaning “originating in bone marrow.”

Noun Suffixes

TABLE 2-1 Suffixes That Mean “Condition Of”

SUFFIX	EXAMPLE	DEFINITION OF EXAMPLE
-ia	phobia <i>FŌ-bē-a</i>	persistent and exaggerated fear
-ism	alcoholism <i>AL-kō-hol-izm</i>	impaired control of alcohol use
-sis*	acidosis <i>as-i-DŌ-sis</i>	acid condition of body fluids
-y	tetany <i>TET-a-nē</i>	sustained muscle contraction

*The ending *-sis* may appear with a combining vowel, as *-osis*, *-iasis*, *-esis*, or *-asis*. The first two of these denote an abnormal condition.

Exercise

Write the suffix that means “condition of” in each of the following words:

1. egotism (exaggerated self-importance) -ism

E-go-tizm

2. dysentery (intestinal disorder)

DIS-en-ter-e

3. insomnia (inability to sleep)

in-SOM-ne-a

4. parasitism (infection with parasites or behaving as a parasite)

PAR-a-sit-izm

5. thrombosis (having a blood clot in a vessel)

throm-BO-sis

TABLE 2-2 Suffixes for Medical Specialties

SUFFIX	MEANING	EXAMPLE	DEFINITION OF EXAMPLE
-ian	specialist in a field of study	physician <i>fi-ZISH-un</i>	practitioner of medicine (from root <i>physi/o</i> , meaning "nature")
-iatrics	medical specialty	geriatrics <i>jer-ē-AT-riks</i>	study and treatment of the aged (from root <i>ger/i</i> , meaning "old age")
-iatry	medical specialty	podiatry <i>pō-DĪ-a-trē</i>	study and treatment of the foot (from root <i>pod/o</i> , meaning "foot")
-ics	medical specialty	orthopedics <i>or-thō-PĒ-diks</i>	study and treatment of the skeleton and joints (from root <i>ped/o</i> , meaning "child," and prefix <i>ortho</i> , meaning "straight")
-ist	specialist in a field of study	cardiologist <i>kar-dē-OL-ō-jist</i>	specialist in the study and treatment of the heart (from root <i>cardi/o</i> , meaning "heart")
-logy	study of	physiology <i>fiz-ē-OL-ō-jē</i>	Study of function in a living organism (from root <i>physi/o</i> , meaning "nature")

Exercise

Write the suffix in each of the following words that means "study of," "medical specialty," or "specialist in a field of study":

- dentist (one who treats the teeth and mouth) -ist
DEN-tist
- pediatrics (treatment of children)
pe-de-AT-riks
- technologist (specialist in a technical field)
tek-NOL-o-jist
- psychiatry (study and treatment of mental disorders)
si-KI-a-tr
- radiology (use of radiation in diagnosis and treatment)
ra-de-OL-o-je

Adjective Suffixes

The suffixes below are all adjective endings that mean "pertaining to" or "resembling".

TABLE 2-3 Suffixes That Mean “Pertaining to” or “Resembling”

SUFFIX	EXAMPLE	DEFINITION OF EXAMPLE
-ac	cardiac <i>CAR-dē-ak</i>	pertaining to the heart
-al	skeletal <i>SKEL-e-tal</i>	pertaining to the skeleton
-ar	muscular <i>MUS-kū-lar</i>	pertaining to muscles
-ary	dietary <i>dī-e-tar-ē</i>	pertaining to the diet
-form	muciform <i>MŪ-si-form</i>	like or resembling mucus
-ic*	metric <i>ME-trik</i>	pertaining to a meter (unit of measurement) (Fig. 2-3)
-ical (ic + al)	anatomical <i>an-a-TOM-i-kl</i>	pertaining to anatomy
-ile	febrile <i>FEB-rīl</i>	pertaining to fever
-oid	toxoid <i>TOK-soyd</i>	resembling toxin (poison)
-ory	respiratory <i>RES-pi-ra-tor-ē</i>	pertaining to respiration
-ous	venous <i>VĒ-nus</i>	pertaining to a vein

*For words ending with the suffix *-sis*, the first *s* in the ending is changed to *t* before adding *-ic* to form the adjective, as in *psychotic*, pertaining to psychosis (a mental disorder), or *diuretic*, pertaining to diuresis (increased urination).

Exercise

Identify the suffix meaning “pertaining to” or “resembling” in each of the following words:

1. salivary (pertaining to saliva)..... -ary

SAL-i-var-e

2. pelvic (pertaining to the pelvis).....

PEL-vik

3. fibrous (pertaining to fibers).....

FI-brus

4. surgical (pertaining to surgery)

SUR-ji-kal

5. nuclear (pertaining to a nucleus)

NU-kle-ar

6. urinary (pertaining to urine)

U-ri-nar-e

7. circulatory (pertaining to circulation)

SIR-ku-la-tor-e

Forming Plurals

Many medical words have special plural forms based on the ending of the word. Table 2-4 gives some general rules for the formation of plurals along with examples. The plural endings listed in column 2 are substituted for the word endings in column 1.

Some Exceptions to the Rules

There are exceptions to the rules above for forming plurals, some of which will appear in later chapters. For example, the plural of *virus* is *viruses*, and *serums* is sometimes used instead of *sera*. An *-es* ending may be added to words ending in *-ex* or *-ix* to form a plural, as in *appendixes*, *apexes*, and *indexes*.

Some people, in error, use *phalange* as the singular of *phalanges*. Words ending in *-oma*, meaning “tumor,” should be changed to *-omata*, but most people just add an *s* to form the plural. For example, the plural of *carcinoma* (a type of cancer) should be *carcinomata*, but *carcinomas* is commonly used.

TABLE 2-4 Plural Endings

WORD ENDING	PLURAL ENDING	SINGULAR EXAMPLE	PLURAL EXAMPLE
a	ae	gingiva (gum) <i>JIN-ji-va</i>	gingivae <i>JIN-ji-vē</i>
en	ina	foramen (opening) <i>fō-RĀ-men</i>	foramina <i>fō-RĀM-i-na</i>
ex, ix, yx	ices	appendix (something added) <i>a-PEN-dix</i>	appendices <i>a-PEN-di-sēz</i>
is	es	diagnosis (identification of disease) <i>dī-ag-NŌ-sis</i>	diagnoses <i>dī-ag-NŌ-sēz</i>
ma	mata	stigma (mark or scar) <i>STIG-ma</i>	stigmata stig-MAT-a
nx (anx, inx, ynx)	nges	phalanx (bone of finger or toe) <i>fa-LANKS</i>	phalanges <i>fa-LAN-jēz</i>
on	a	spermatozoon (male reproductive cell) <i>sper-ma-tō-ZŌ-on</i>	spermatozoa <i>sper-ma-tō-ZŌ-a</i>
urn	a	ovum (egg) <i>Ō-vum</i>	ova <i>Ō-va</i>
us	ii	embolus <i>EM-bō-lus</i>	emboli <i>EM-bō-lī</i>

Exercise

Write the plural form of each of the following words. The word ending is underlined in each.

1. vertebra (bone of the spine) >>> vertebrae

VER-te-bra

2. ganglion (mass of nerve tissue) >>>

GANG-le--on

3. omentum (abdominal membrane) >>>

o--MEN-tum

4. testis (male gonad) >>>>

TES-tis

5. lumen (central opening) >>>

LU-min

6. matrix (background substance; mold) >>>

MA-triks

7. serum (liquid) >>>>

SE-rum

8. meninx (membrane around the brain and spinal cord) >>>

ME-ninks

Common Suffixes in Medical Terms

Suffix	Meaning
-ac, -al, -ar, -ia, -ic, -ory	pertaining to
-algia	pain
-centesis	surgical puncture
-cyte	cell
-ectomy	to surgically excise, remove
-graph	to write, record
-ist	one who specializes, agent
-itis	inflammation
-logy	study of, specialty of
-megaly	enlargement
-oma	tumor
-path/y	disease
-scope	an instrument to view

Suffixes That Signify Medical Conditions

Suffix	Refers to	Examples
-algia	pain	arthralgia
-cele	protrusion, hernia	rectocele
-dynia	pain	arthrodynia
-ectasis, -ectasia	expansion or dilation	angiectasis
-emia	blood	anemia
-iasis	presence of; formation of	cholelithiasis
-ism	a condition, a process, or a state of	dwarfism
-itis	inflammation	appendicitis
-malacia	softening	osteomalacia
-megaly	enlargement	gastromegaly
-oma	tumor	gastrooma
-osis	abnormal condition	osteoporosis
-penia	reduction of size or quantity	leukopenia
-plegia	paralysis	hemiplegia
-pnea	breathing	tachypnea
-porosis	porous condition	osteoporosis
-ptosis	downward displacement	nephroptosis
-rrhage	flowing forth	hemorrhage
-rrhea	discharge	diarrhea
-rrhexis	rupture	hysterorrhexis
-spasm	muscular contraction	angiospasm