

Medical Terminology

At first glance, medical terminology is loaded with long words. In order to better understand these words it will be easier if you will take the time to understand how these words can be dissected into their component parts. These smaller, more understandable components are the “building-blocks” of the larger, more complex, words.

Common Components of Medical Words

The typical “long word” in medical terminology is typically made up of two or more of the following;

Prefix
Root word(s)
Suffix

Example #1: electro - cardio - gram

The prefix “electro” denotes electrical.
The root word “cardio” means heart.
The suffix ‘gram” indicates a recording

Taken together, they mean **a recording of the heart’s electricity**.

Example #2: hepato - megaly

The prefix “hepato” denotes liver.
The suffix “megaly” means large.

Taken together, they mean **large liver**.

A careful study and understanding of common prefixes, suffixes, and root words will allow the student to better understand how to dissect large words used in medical terminology into their component and hence, more understandable pieces.

A table containing a sampling of some of the more common prefixes, suffixes, and root words is included for your convenience.

Common Prefixes and Combining Root Words

PREFIXES & Root words

- **a, an-** without, absent (apnea: temporary absence of respiration).

ab- away from (abduct: move away from).

abdomin(o)- abdomen (abdominal: pertaining to the abdomen).

acou- hearing (acoustics: study of sound).

acr(o)- extremity, tip (acromegaly: disease characterized by enlargement of distal parts of the skeleton).

ad- to, toward, near (adduct: move toward).

aden- gland (adenocarcinoma: carcinoma of glandular tissues).

adip(o)- relating to fat.

aero- relating to gas or air.

af- to, toward (afferent: conveying toward a central point).

alba- white (albino: lacking color, appearing white).

alg- pain (cephalgia: pain in the head/headache).

all- meaning another, other or different.

allo- indicates difference or divergence from the norm.

alve- channel (alveolus: air channel in lung).

ambi- both, on both sides (ambidextrous: using both hands).

ambly- impaired, dull (amblyopia: impaired vision).

amphi- around or about, doubly (amphibious: capable of living on land or water).

an- without

ana- up, positive, back again (anastomosis: connection of two vessels).

andr(o)- male (androgens: male sex hormones).

angi(o)- vessel, duct, usually a blood vessel (angioplasty: operation to repair narrowing blood vessels).

aniso- dissimilar, unequal, or asymmetrical

ankyl(o)- crooked, bent, fused, stiff (ankylosed: fused, as in joints).

ante- before, in front of (antepartum: before delivery).

antero- before, front, anterior

anti- against, counteracting (antidote: treatment to counter-act the effects of a poison).

arthr(o)- relating to joint(s) (arthritis: inflammation of a joint).

antro- relating to a chamber or cavity.

appendi- relating to the appendix

arch- beginning, first, principle

archo- relating to the rectum/anus

arteri- relating to the arteries

arth- joint

asthenia- weakness

astro- star-shaped or star-like.

atel- imperfect, incomplete (atelencephalia: incomplete development of the brain).

audi- related to hearing

auto- self (autophobia: the fear of self or being alone).

axio- relating to an axis.

axo- relating to an axis.

balano- relating to the glans penis or glans clitoridis

baro- relating to weight or heaviness.

basi- relating to the base or foundation (also basio-)

bi- two, twice (binocular: of both eyes).

bio- life (biomicroscope; a microscope used to view living tissue).

blasto- growth, bud (blastocyst: hollow ball of embryonic cells).

blenn- relating to mucus (also blenno)

blepharo- relating to the eyelid (blepharoplasty: operation to repair the eyelid(s))

brachi(o)- arm (brachialis: muscle for flexing forearm).

brachy- short (brachydactyly: abnormal shortness of fingers or toes).

brachy- short

brady- slow or prolonged (bradycardia: slow heart rate).

bronch- windpipe (bronchitis: inflammation of the bronchus).

burs- relating to bursa

cac(o)- bad, ill, abnormal (cachexia: generally poor condition of the body).

capit- head (capitulum: small eminence, or little head, on a bone by which it articulates with another bone).

carcin(o)- cancer (carcinogenic: cancer causing).

cardi- relating to the heart

carp(o)- relating to the wrist.

cata-, kata- down, through (catabolism: breaking down).

caud- tail (caudal: toward the posterior part of the body).

cele-, celo- indicating a tumor or hernia; cavity

centi- 1/100, 100 (centimeter: 1/100 meter).

cephal(o)- head (encephalitis: inflammation of the brain).

cerebr(o)- brain (cerebral: pertaining to the brain).

cervi(co)- neck or neck of an organ (cervix: neck-shaped outer end of the uterus).

chilo-, cheil- relating to the lip

chole- relating to the gallbladder

chondr(o)-, chondri-, chondrio- cartilage

(chondromalacia: softening of cartilage).

chromo-, chromato- color (polychromatic: multi-colored).

circum- around (circumduction: circular motion around a joint).

cirrh- yellow (cirrhosis: disease causing yellowing of the liver).

cleido- relating to the clavicle

co-, com-, con- with, together (congenital: born with).

coel- cavity within a body or body organ (coelenteron: gastrovascular cavity).

contra- opposite, against (contralateral: opposite side).

cor(e)- relating to the pupil of the eye

cost(o)- relating to the ribs

crani(o)- skull (craniotomy: surgical opening in the skull).

cryo- cold (cryosurgery: surgery performed with application of extreme cold to tissues).

crypt(o)- hidden (cryptoplasmic: occurring in a concealed form).

cutane- relating to the skin

cyan(o)- blue (cyanosis: bluish discoloration of the skin).

cyst- sac, bladder (cystitis: inflammation of the bladder).

cyst(o)- relating to the urinary bladder or a cyst

cyt(o)- cell (cytology: study of cells).

dacry- pertaining to the lacrimal glands

de- away, not, down (dehydrate; take water away from).

deca- deci- 1/10 (deciliter: 1/10 liter).

demi- half the amount.

dent(i)- tooth (interdental: between the teeth).

derm- skin (dermatitis: inflammation of the skin).

desmo- relating to the ligaments

deuter- secondary or second.

dextr(o)- on the right or towards the right (dextrogastric: displacement of the stomach to the right side of body).

di- two, twice, doubly (diphase: occurring in two stages).

dia- apart, across, through, between, completely (diastasis: separation of normal joined parts).

diplo- double (diplopia: double vision).

dis(t)- apart, away from (disarticulate: come apart at the joints).

dorso-, dorsi- back (dorsiflexion: bending to the back of hand, foot, or spine).

duct- lead, conduct (ductulus: a minute duct/tube).

dys- diseased, difficult; bad ; painful (dystrophy: disorder arising from faulty nutrition).

ecto- outside (ectoderm: outer germ layer).

ectro- congenital absence of something.

edem- swelling (edema: swelling).

em-, en- in (encapsulated: enclosed in a capsule).

endo- within (endoderm: inner germ layer).

enter(o)- intestine (gastroenteritis: inflammation of the digestive system).

epi- on, over, upon (epidermis: outer layer of skin).

erythr(o)- red (erythropoiesis: formation of red blood cells).

eu- good, normal (eupnea: easy, normal breathing).

ex- out of (exhale: breathe out).

exo- outside (exocytosis: process of expelling large particles from a cell).

extra- outside of, in addition to, beyond (extracellular: outside a cell).

fasci- band (fascia: sheet of fibrous tissue).

fibro- relating to fibers or fibrous tissue

fore- before, in front (forebrain: front part of brain).

galacto- relating to milk

gastr(o)- stomach (gastritis: inflammation of the stomach).

genito- relating to reproduction

glyco-, gluco- sugar, sweet (glycolysis: breakdown of glucose)

gono- relating to genitals; offspring; origination

gyn(o), gyne(co)- female, woman (gynecology: study of the female reproductive system).

haplo- single, simple (haploid: having a single set of chromosomes).

hema-, hemato-, hemo- blood (hematoma: a localized collection of blood).

hemi- one-half (hemiplegia: paralysis of one side of the body).

hepat(o)- liver (hepatitis: inflammation of the liver).

hetero- other, different (heterosexual: other sex).

hist(o)- tissue (histology: study of tissues).

homeo- unchanged, resembling, or likeness (homeostasis: state of inner stability of the body).

homo- same (homogeneous: comprised of same/similar elements).

hydr(o)- water, fluid, or hydrogen (hydrocele: accumulation of serous fluid in a body cavity).

hyper- above, excessive (hyperactivity: excessive activity).

hypo- beneath, under, deficient (hypoglycemic: having low blood glucose levels).

hyster-relating to the womb or hysteria

idio- peculiar to the individual, distinct (idiopathic: disease with no apparent cause).

ileo- ileum/part of the small intestine

ilio- relating to the pelvis.

in-, im- in, within, into; not (indigestion: difficulty in digest-ing food; immerse: dip into).

infra- below (infracostal: below the ribs).

inter- between, among (intercellular: between cells).

intra- within (intracellular: within a cell).

ir- against, into, toward (irradiate: emit rays into).

irid- relating to the iris.

is(o)- equals, same (isopia: equal vision in both eyes).

ischio- relating to the hip.

jejuno- relating to the jejunum (part of the small intestine)

juxta- next to or near.

karyo- relating to the nucleus of a cell.

kerato- relating to the cornea or horny tissue.

labi- lip (labia majora: external folds or lips of the vulva).

lacri- tears (nasolacrimal apparatus: tear-producing and tear-carrying apparatus).

lact(o)- milk (lactose: milk sugar).

laparo- flank, loins, operations through the abdominal wall.

laryng(o)- relating to the larynx.

leuk(o)- white (leukocyte: white blood cell).

lien- relating to the spleen.

lip(o)- fat, fatty (lipoma: benign tumor of fatty cells).

lith(o)- relating to a hard or calcified substance/stone.

lumb(o)- relating to the lumbar spine region.

macr(o)- large (macrophage: large phagocytic cell).

mal- bad (malnutrition: impaired/poor diet).

medi- middle (medial: near the midline of the body).

mega- large (megakaryocyte: large cellular forerunner of platelet).

melan(o)- black (melanin: dark skin pigment).

meningo- relating to the membranes covering the brain and spine.

mesio- towards the middle; secondary

meso- middle (mesoderm: middle layer of skin).

meta- beyond, next to (metacarpal: bone of the hand that is next to the wrist).

micr(o)- .small (photomicrograph: photograph of a very small object as seen through a microscope).

milli- 1/1000 (millimeter: 1/1000 meter).

mis- bad, improper.
mon(o)- one (monocular: pertaining to one eye).
morph(o)- form, shape (morphology: study of the form and structure of organisms and parts of organisms).
multi- many (multicellular: having many cells).
my(o)- muscle (myocardium: heart muscle).
myc- relating to fungus.
myel(o)- bone marrow, spinal cord (myelitis: inflammation of the spinal cord).

narco- insensate condition or numbness.
necro- death or dead tissue.
neo- new, strange (neonatal: newborn).
nephr(o)- kidney (nephrectomy: surgical removal of a kidney).
neur(o)- nerve (neuron: nerve cell).
noci- relating to injury or pain.
non- not (noninfectious: not able to spread).
nycto- relating to darkness or night.
ob- against (obstruction: blocking of a structure).
ocul(o)- eye (oculomotor: pertaining to eye movement).
odont- relating to the teeth.
olig(o)- little, few, scanty (oliguria: secretion of a small amount of urine).
omo- relating to the shoulder.
omphalo- relating to the navel.
onco- relating to a mass, tumor, or swelling.
onycho- relating to the fingernails or toenails. (onychomycosis: a fungal condition of the nail)
oo- egg (oocyte: egg cell).
oophor- relating to the ovaries.
ophthalgo- eye (ophthalmology: study of the eye).
opistho- indicates behind or backwards.
orchi- relating to the testicles.
orth(o)- straight, normal, correct (orthodontic: pertaining to the straightening of teeth).
oscheo- relating to the scrotum.
oste(o)- bone (osteitis: inflammation of the bone).
ot(o)- ear (otology: study of the ear).
ovi- ovo- egg (ovum: egg cell).
pachy- large, heavy, or thick.
pali- repetition, back again, recurrent
panto- indicates the whole or all.
para- beside, beyond, similar (paraspinal: beside the spine).
path(o)- disease, suffering (pathogenic: capable of producing disease).
ped(i)- relating to the foot.
pedia- child (pediatrician: physician who specializes in childhood diseases).
pend- hang down (appendicular skeleton: portion of the skeleton that hangs from the pectoral and pelvic girdles).
per- through (permeate: to pass through).
peri- around or in the vicinity of (pericardium: membrane surrounding the heart).
pero- indicates being maimed or deformed.
phaco- relating to the lens of the eye.
phag(o)- eat, consume (phagocyte: cell that ingests other cells or particles).

pharyngo- relating to the pharynx/throat.
phleb(o)- vein (phlebitis: inflammation of a vein).
phreno- relating to the diaphragm, head or mind.
pimel- relating to fat.
platy- wide; broad
pleio- more; additional
pleuro-, pleura- rib, side (pleurisy: inflammation of pleura, the membrane covering the lungs and lining the thoracic sac).
plur(i)- many, more (pluriglandular: several glands).
pneum- relating to respiration, air, or the lungs.
pneumato-, pneuma- air (pneumometer: instrument for measuring pressure of inspiration and expiration of lungs).
pneumo-, pneumono- lung, respiratory organs (pneumonia: chronic lung infection).
pod- foot (podiatrist: a specialist in care and treatment of the foot).
poly- many (polycystic: having many cysts).
post- after (postpartum: after delivery).
pre-, pro- before (prenatal: before birth).
pro- for, in front of, before (prophylaxis: preventive treatment, to keep guard before development of problems).
proct- rectum, anus (proctoscope: instrument for examining the rectum).
proso- indicates toward the front, anterior, or forward
pseudo- false (pseudoparaplegia: hysterical/false paralysis).
pulmo- lung (pulmonary: pertaining to the lungs).
py(o)- pus (pyocyst: pus-filled cyst).
pyelo- relating to the renal pelvis
pyreto- fever, heat
quadr(i)- four (quadriplegia: paralysis of all four limbs).
rachi- relating to the spine.
re- back, again (reflex: bend back).
recto- straight or relating to the rectum
ren- kidney (adrenal: relating to the position of the adrenal gland atop the kidney).
retro- behind, backward (retrograde: going backward).
rheo- a flow or stream of fluid.
rhin(o)- nose (rhinitis: inflammation of nasal mucous membranes).
sacro- relating to the sacrum; base of the vertebral column
salping- relating to the fallopian or eustachian tubes.
sarco- relating to flesh
scapho- deformed condition, shaped like a boat
scapulo- relating to the shoulder.
schisto- cleft or split; a fissure.
sclero- hard (sclerosis: hardening of tissue).
scoto- relating to darkness; a visual field gap.
semi- one-half, partly (semilunar valve: half moon-shaped valve).
sial- relating to saliva.
sinistro- (sinister) relating to the left side.
somato- relating to the body.
spheno- relating to the sphenoid bone at the base of the skull.
sphygmo- relating to the pulse.
sphlanch- intestines; viscera
steato- fat

steno- contracted, narrow (stenosis: condition of being narrowed).

stetho- relating to the chest.

stom(ato)- relating to the mouth.

sub- beneath (subcutaneous: beneath the skin).

super- above (superior: toward the head).

supra- above, over (suprapubic: above the pubic bone).

sym-, syn- together, union (synapse: meeting between two or more nerve cells).

tachy- fast (tachycardia: abnormally fast heart rate).

tarso- relating to the foot; margin of the eyelid.

telo-, teleo- end; complete or perfectly formed (telophase: final phase of mitosis).

teno- relating to tendons.

terato- indicates being seriously deformed.

tetr(a)- four (tetrad: group of four chromosomes formed during meiosis).

thalgo- relating to the thalamus, origin of nerves in the brain.

thanato- relating to death.

therap- treatment (therapeutic: having a healing effect).

therm(o)- heat, warmth (thermometer: device to measure heat).

thorac(o)- chest (thoracic cavity: chest cavity).

thromb(o)- lump, clot (thrombosis: formation of a blood clot in a vessel or heart cavity).

thymo- relating to the thymus.

toco- birth

tox- poison (toxemia: blood poisoning).

trachelo- neck

trans- across, through (transepidermal: occurring through or across the skin).

tri- three (triceps: three-headed muscle of the posterior of arm).

trichi-, tricho- relating to hair; hair-like shape or appearance.

tympano- eardrum

typhlo- relating to the cecum; relating to blindness

ultra- excessive, extreme (ultrasonic: sound waves beyond the audio-frequency range).

un(i)- one (unilateral: one side).

uria-, uro- urine, urinary tract (polyuria: production of excess urine).

vas(o)- vessel (cardiovascular: vessel related to the heart)

ventr(o)- relating to the abdomen; anterior surface of the body.

vesic(o)- relating to the bladder.

viscera-, viscer- organ (visceral: pertaining to a body organ, usually abdominal).

xeno- a foreign substance

xero- indicates a dry condition

SUFFIXES

-ac pertaining to (celiac: pertaining to the abdominal region).
-ad toward, in the direction of (cephalad: toward the head).
-agra severe pain, seizure (podagra: severe pain of the foot).
-al pertaining to (digital: pertaining to the finger or toe).
-alg, algia- pain, painful (cephalgia: head pain/headache)
-an, -ian pertaining to, characteristic of, belonging to (ovarian: pertaining to the ovary).
-apheresis removal
-ar of or relating to, being, resembling (valvular: relating to a valve).
-ary of or relating to, connected with (biliary: relating to bile).
-ase enzyme (lactase: enzyme that catalyzes conversion of lactose into glucose and galactose).
-asthenia weakness
-ate that which is acted upon, marked by having, to act on (substrate: substance acted on by enzyme; lobate: having lobes; separate: to keep apart).
-atresia abnormal closure, occlusion, or absence of a normal body opening (proctofistula: closed anus).
-blast sprout, growth (osteoblast: cell from which bone develops).
-capnia relating to carbon dioxide
-cele swelling, tumor, hernia, or protrusion (cystocele: hernia of urinary bladder).
-centesis puncture of a cavity (paracentesis: puncture of a space around an organ or within a cavity to remove fluid).
-cephal pertaining to the head (cephalgia: head pain/headache)
-cide kill (germicide: killer of germs).
-cis cut (excise: cut out).
-clasis, -clasia, -clast breaking up (bacterioclasis: breaking up of bacteria).
-cle, -cule small or little
-cleisis closure (colpocleisis: operation for closure of vagina).
-coccus berry-shaped, a form of bacterium
-crit to separate
-cyte having to do with cells
-dactyl pertaining to the fingers
-desis binding, fusion (tenodesis: fixation of a loose tendon).
-drome run, running
-dynia pain (pleurodynia: pain on the side of the chest).
-eal pertaining to
-ectasia, -ectasis dilation, expansion (telangiectasis: dilation of capillaries).
-ectomy excision, cutting out, removal (laryngectomy: removal of larynx)
-emia condition of the blood (leukemia: blood condition characterized by excess leukocytes).
-facient making or causing to become (febrifacient: causing a fever).

-ferent carrying (efferent: carrying away from).
-ferous produces, causes, or brings about
-form structure, shape (ossiform: resembling the form of bone).
-fugal, -fuge driving or traveling away from; expel (centrifugal: moving away from the center).
-ful full of, characterized by (stressful: causing stress).
-gen, -gene producer (mutagen: substance that increases the frequency of mutation).
-genic, -genesis production of, origin of (glycogenesis: production of glycogen).
-gram record (electrocardiogram: record of electrical activity in the heart).
-graph instrument for making records (electroencephalograph: apparatus for recording brain waves).
-ia condition (anuria: condition of lack of urine).
-iasis a diseased condition (cholelithiasis: condition of bile stones).
-ic pertaining to (colonic: pertaining to the colon).
-ician, -ist specialist, practitioner (pediatrician: specialist in childhood diseases).
-ile having the qualities of or capability for (febrile: feverish).
-ion act of, state of, result of (incision: act of cutting or result of cutting).
-ism condition, act of, process of (dwarfism: condition of being a dwarf).
-itis inflammation (phlebitis: inflammation of a vein).
-ity quality of, state of (obesity: state of being obese).
-ive that which performs or tends toward (tardive disease: disease with late-appearing symptoms).
-logy study of (cardiology: study of the heart).
-lysis breaking down, release, free, reduction of (glycolysis: breakdown of glucose).
-malacia softening (osteomalacia: softening of bone).
-megaly enlargement
-meter instrument or means of measuring (thermometer: instrument to measure heat).
-metry measurement of
-ness quality of, state of (illness: state of being ill).
-odynia indicates pain or discomfort (mastodynia: painful breast(s)).
-oid having the appearance of; resemblance to (cuboid: resembling a cube).
-ologist, -ology specialist, study of
-oma tumor (carcinoma: malignant tumor).
-opia eye disorder (myopia: nearsightedness).
-or that which, one who (receptor: that which receives).
-orrhagia rapid, excessive flow of blood
-orrhaphy suture, repair of
-orrhexis rupture
-ory process of, pertaining to, function of (sensory: pertaining to the senses).
-oscopy to examine; visualize
-ose full of, having the qualities of (comatose: having the qualities of a coma).
-osis action, state, process, abnormal condition (halitosis: condition of having bad breath).
-osis condition; process

-ostomy creation of an artificial opening (colostomy: creation of a new opening between the bowel and abdominal wall).

-otomy cutting into, incision into (tracheotomy: cut into the trachea).

-ous, -ious having the qualities of, capable of, full of (infectious: capable of being transmitted).

-oxia pertaining to oxygen (hypoxia: reduced oxygen condition)

-pagus fixed or joined together

-paresis slight paralysis

-pathic a feeling, diseased condition, or therapy

-pathy disease (cardiopathy: heart disease).

-penia deficiency, lack (leukopenia: lack of white blood cells).

-pexy fixation, suspension (sigmoidopexy: fixation of large intestine).

-philia love of, tendency toward (hemophilia: "love of blood," a blood disease).

-phobia abnormal fear or aversion (claustrophobia: fear of confinement).

-phonia relating to sound or voice

-physis growth

-plasty molding, forming, or shaping (osteoplasty: plastic surgery on bone).

-plegia paralysis (paraplegia: paralysis of lower half of body).

-poiesis production, formation of (hematopoiesis: production of blood cells).

-praxis indicates activity, action, condition, or use

-ptosis dropping, downward displacement, prolapse (carpopptosis: wrist drop).

-rhage, rrhagia bursting forth, excessive discharge, bleeding (hemorrhage: escape of blood from vessels).

-rrhaphy closure of by suturing, repair (cystorrhaphy: suture of bladder).

-rrhea flow, discharge (galactorrhea: excessive or spontaneous flow of milk).

-rrhexis splitting or breaking

-salpinx fallopian tube

-schisis split, fissure

-sclerosis hardening

-scope, -scopy, -scopic looking at, examining (bronchoscope: instrument used to view inside breathing tubes).

-sect cut (dissect: cut into parts).

-sis process, action, state of (dialysis: separation of particles through a semipermeable membrane).

-spasm contraction

-stasis state of being at a standstill (hemostasis: stopping of blood flow).

-sthenia strength (asthenia: loss of strength).

-stomy surgical opening (colostomy: surgical opening in the colon).

-taxy, -taxis arrangement or grouping

-thora, -thorax thorax, chest

-tion act of, result of, process of (elongation: process of making longer).

-tocia birth, labor

-tome instrument used to cut

-tomy to cut (lobotomy: incision into a lobe).

-tonia stretching, putting under tension (hypertonia: excessive tension).

-tripsy rubbing, crushing (lithotripsy: surgical crushing of kidney stones).

-trophic, -trophy related to nutrition, growth, development (dysrophic: faulty nutrition).

-tropic turning toward, changing (hydrotropic: turning toward water).

-tropism responding to external stimulus

-y having the nature or quality of (gouty: goutlike).

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