A

a-, an- not, without

(asexual, anaerobic)

ad- to, toward

(adhesion, adsorb)

aden- gland

(adenocarcinoma)

adip- fat

(adipocyte, adipose)

aero- air

(anaerobic)

alg-, -algia pain

(algometer, neuralgia)

allo- different, other

(allopatric, allergy)

ambi- both, around

(ambiguous, ambient)

amyl- starch

(amylase)

andro- man

(androgynous, androgen)

ante- before

(antepartum, ancestor)

anter- front

(anterior)

anti- opposite

(antibiotic)

aqu- water

(aqueous)

archaeo- ancient

(archaebacterial, archaic)

-ase enzyme

(amylase, lactase)

audi- hear

(auditory, audible)

auto- self

(autotroph, autonomy)

B

bacter-, bacterium

(bacteriophage)

baro- weight

(baroreceptor, barometer)

bene- well, good

(beneficial)

bi- (Latin) two, twice

(bifurcate, bivalve)

bi-, bio- (Greek) life, living

(biology, biotic)

-blast- germ, bud

(blastocyst, osteoblast)

brachi- arm

(brachiopod)

brachy- short

(brachydactyly)

bronch- windpipe

(bronchi, bronchitis)

C

calor- heat

(calorie, calorimeter)

capill- hair

(capillary)

carcin- cancer

(carcinogen, carcinoma)

cardi- heart

(cardiac, cardiologist)

carn- (Latin) meat, flesh

(carnivore)

cata- breakdown

(catabolism, catalase)

caud- tail

(caudal)

cen-, cene- now, recent

(Cenozoic Era)

centi- hundredth

(centimeter)

centr- center

(centromere)

cephal- head

(microcephaly, cephalopod)

cerebr- brain

(cerebrum, cerebellum)

chlor- green

(chloroplast, chlorophyll)

chrom-, color

-chrome

(chromatography)

-cid-, -cis- kill, cut

(herbicide, incision)

co- with, together

(coenzyme, cofactor)

coel- hollow

(coelomate)

cort-, cortic outer layer

(cortex)

cotyl- cup

(cotyle, dicotyledon)

-cul-, -cule small

(molecule)

cyan- blue

(cyanobacteria)

-cyst- sac, pouch

(blastocyst, nematocyst)

cyt-, -cyte cell

(cytokinesis, hepatocyte)

D

dactyl- finger

(polydactyly)

deci- tenth

(decimal, decibel)

dendr- tree

(dendrites)

dent- tooth

(denticle, dentist)

derm- skin

(dermis, endoderm)

di- (Greek) two, double

(dichotomous, diploid)

dies-, di- (Latin) day

(diurnal, circadian)

dis- apart, out

(dissociate)

dors- back

(dorsal)

dys- abnormal

(dystrophy, dysrhythmia)

E

ec-, ecto- out of, away from

(ectoderm)

echin- spiny

(Echinodermata)

eco- house

(ecology, ecosystem)

-elle small

(organelle, micelle)

-emia blood

(anemia, alkalemia)

en-, endo- in, into, within

(endoderm, endothermic)

enter- intestine, gut

(enterotoxin, gastroenteritis)

epi- above, over

(epidermis, epithelial)

erythro- red

(erythrocyte)

eu- good, true

(eukaryote, eugenics)

ex- out of, away from

(exocytosis, exergonic)

extra- beyond, outside

(extracellular)

F

ferro- iron

(ferrous oxide, ferrotherapy)

fibr- fiber, thread

(cystic fibrosis, fibrin)

fiss- split, divided into

(fission, fissure)

-flect, -flex bend

(biflex, anteflexion)

foli- (Latin) leaf

(foliate, foliage)

fract- break

(fracture, refraction)

G

gastr- stomach

(gastralgia, gastropod)

geo- land, earth

(geography, geomagnetic)

gen-, -gen creation

(genetic, androgen)

-glob- ball, round

(globulin)

gluc-, glyc- sugar

(glucose, glycolysis)

gnath- jaw

(heterognathus, agnathus)

-gram, record, writing

-graph

(cladogram, crystallography)

grav- heavy

(gravitropism, gravity)

gymno- naked, bare

(gymnosperm)

gyn- woman

(gynecium, pseudogyne)

H

-hal-, -hale breath

(inhale, halitosis)

halo- salt

(halogen, halophile)

hapl- simple

(haploid, haplotype)

helio- (Greek) sun

(heliotropism)

-helminth- worm

(Platyhelminthes)

hem- blood

(hemophiliac, hemoglobin)

hemi- half

(hemisphere)

hepat- liver

(hepatocyte, hepatitis)

herb- plant

(herbicide, herbivore)

hetero- different

(heterozygous, heterotroph)

hist- tissue

(histology, antihistamine)

homo- (Latin) man, human

(*Homo sapiens*, homicide)

homo- (Greek) same

(homogenous, homozygous)

hydr- water

(hydrolysis, dehydration)

hyper- above

(hypertonic, hyperthermia)

hypo- below

(hypoglycemia, hypothalamus)

I

-iasis disease

(hypochondriasis, psoriasis)

ichthy- fish

(ichthyosaurus, ichthyology)

ign- fire

(igneous, ignite)

infra- below

(infrared, inferior)

inter- between

(interspecies, interrelated)

intra- within

(intracellular, intrinsic)

iso- equal

(isotonic, isometric)

-itis disease

(dermatitis, hepatitis)

K

-kary- nut, nucleus

(eukaryote, karyotype)

kerat- horn

(keratin, triceratops)

kilo- thousand

(kilogram)

kine- move

(cytokinesis, kinesthetic)

L

lachry- tear

(lachrymation, lacrimal bone)

lact- milk

(lactose, lactate)

lat- side

(lateral, latitude)

leuc-, leuk- white, light

(leucocyte, leukemia)

lign- wood

(lignin)

lip- fat

(lipase, lipid)

lith-, -lite stone

(biolith, vermiculite)

-logy study of

(biology, histology)

luc- light

(luciferase, translucent)

lumin- light, shine

(bioluminescent)

-lys, -lyst (Greek) loosen, dissolve

(lysosome, catalyst)

M

macr- large

(macrocephalous, macroevolution)

mal- bad

(malignant, malaria)

mamm- breast

(mammal, mammary gland)

medi- (Latin) middle

(meridian, medial)

mela-, black, dark

(melanin, melanoma)

-mer part

(monomer, polymer)

mes- (Greek) middle

(mesophyll, Mesozoic Era)

meta- after, beyond

(metaphase, metamorphosis)

-meter measurement

(centimeter, barometer)

micro- small, millionth

(microscope, microliter)

milli- thousandth

(milliliter, millennium)

mis- incorrect

(misinterpret, misnomer)

mito- thread

(mitosis, mitochondria)

mono- single

(monomer, monosaccharide)

mort- death

(postmortem, mortality)

mot- move

(motility, motor)

morph- shape, form

(morphology, metamorphosis)

multi- many

(multicellular, multitude)

mut- change

(mutation, mutagen)

my- muscle

(myofibril, myocardial)

myc- fungus

(mycelium, mycorrhiza)

moll- soft

(mollusk)

N

necr- dead

(necrosis, necrophage)

nemat- thread

(nematode, nematocyst)

neo- new

(neon, Neolithic)

nephro- kidney

(nephron, nephrolith)

neur- nerve

(neuron, neuropathy)

noct-, nox- night

(nocturnal, equinox)

nod- knot

(lymph node, nodule)

nom- (Latin) name

(nomenclature, misnomer)

-nomy law, order

(autonomy, astronomy)

non- not

(non-polar, nonfunctional)

not- (Greek) the back

(notochord)

nuc- nut

(nucleus, nucleate)

O

ocul- (Latin) eye, sight

(binocular, antler)

oct- eight

(octamer, octopus)

odont- tooth

(endodontics, orthodontics)

olf- smell

(olfactory)

oligo- few, little

(oligosaccharide, oligonucleotide)

-oma mass, group

(genome, biome, carcinoma)

omni- (Latin) all, every

(omnivore)

onco- mass, tumor

(oncology, oncogene)

oo- (Greek) egg

(oocyte, oogenesis)

ophthalm- (Greek) eye, sight

(ophthalmologist)

opt-, -opsy (Greek) eye, vision

(optics, autopsy)

orb- circle, ring

(orbit)

ornith- bird

(ornithology)

orth- straight, correct

(orthodontics, orthodox)

-osis abnormal condition

(halitosis, acidosis)

osteo- bone

(osteocyte, osteoporosis)

ova- (Latin) egg

(oviparous, ovary)

oxy- sharp, acid, oxygen

(oxyalgia, hyperoxemia, antioxidant)

P

pachy- thick

(pachyderm, pachyemia)

paleo- old, ancient

(paleontology, Paleolithic)

pan- (Greek) all, every

(Pangea, pandemic)

para-, par- beside, wrong

(parallel, paralysis)

partheno- virgin

(parthenogenesis)

path-, -pathy feeling, disease

(pathology, neuropathy)

pater-, patr- father, nation

(paternity, allopatric)

-ped- (Latin) feet

(bipedal, centipede)

-ped- (Greek) child

(pediatric)

per- through, across

(perforate, permeable)

peri- around

(perimeter, periosteum)

phag- eat, ingest

(phagocytosis, bacteriophage)

pheno- show

(phenotype, phenomenon)

-phil love

(hydrophilic, halophile)

photo- light

(photosynthesis)

phyl- tribe, class

(phylum, phylogeny)

-phyll (Greek) leaf

(mesophyll, chlorophyll)

physic- nature, inborn

(physics, physiology)

phyt-, -phyte plant, growth

(phytoplankton, aerophyte)

pino- hunger, drink

(pinocytosis)

plasm-, -plast mold, form

(plasmodesmata, chloroplast)

platy- flat

(Platyhelminthes)

pleio- more, multiple

(pleiotropic)

pneumo- (Greek) lung, breath

(pneumonia)

pod-, -pod foot

(podiatrist, cephalopod)

por- opening

(pore, osteoporosis)

port- carry

(transport, portable)

post- after, behind

(posterior, postmortem)

pre- ahead, before

(prenatal, prescribe)

prim- first

(primitive, primer)

pro- before, forward

(prophase, producer)

proto- earliest form of

(prototype, protein)

pseudo- false

(pseudocoelomate)

psych- mind

(psychology)

pter- wing

(pterodactyl, Lepidoptera)

pulmo- (Latin) lung

(pulmonary artery)

pyr- fire, burn

(pyrophyte)

Q

quadr- four

(quadrilateral, quadrant)

quin- five

(quintuplets)

R

radi- (Latin) ray

(irradiate, radius)

re- again, back

(recede, recycle)

rect- right, straight

(erect, resurrect)

ren- kidney

(renal, adrenal gland)

ret- net, network

(endoplasmic reticulum)

-rrhage bursting forth

(hemorrhage)

rhin- nose

(rhinoceros, rhinoplasty)

rhiz- root

(Rhizobium, mycorrhizae)

rot-, roti- wheel

(rotate, rotifer)

S

sacchar- sugar

(disaccharide)

sapr- rotten

(saprophyte)

sarc- (Greek) flesh, meat

(sarcoma, sarcophagy)

-saur lizard

(dinosaur, Brontosaurus)

sci-, -science to know, to learn

(scientist, conscience)

-scope- see, view

(microscope, endoscopy)

-scrib, -script write, record

(transcribe, subscript)

semi- half, partly

(semicircle, semi-permeable)

sept- partition, seven

(nasal septum, septangle)

septi- decay, rot

(septic, septicemia)

sed-, sess- sit, sitting

(sedative, sessile)

sol- (Latin) sun

(solar, solstice)

solv-, -solu- (Latin) loosen, dissolve

(solvent, insoluble)

som-, -some body

(somatic, chromosome)

somn- sleep

(somniferous, insomnia)

son-, -sonic sound

(sonograph, supersonic)

spec- to see

(spectrum, perspective)

sperm- (Latin) seed, germ

(angiosperm, spermatocyte)

spher- ball, round

(biosphere, spherical)

spir-, -spire breath

(spirometer, respire)

spor- (Greek) seed

(sporophyte, spore)

sta-, -stasis standing, fixed

(stamen, homeostasis)

stell- star

(interstellar, constellation)

stern- chest

(sternum)

stom-, -stome mouth, opening

(stomata, deuterostome)

strat- layer

(stratify, stratosphere)

stereo- three-dimensional

(stereoscopic)

strict- draw tight, bind

(constraint, astringent)

sub- under

(subspecies, subatomic)

super-, sur- above

(superior, survey)

sym-, syn- with, same

(sympatric, synthesis)

T

tachy- quick

(tachycardia)

tax- arrange

(taxonomy)

tele- distant

(telescope)

telo- end

(telomere, telophase)

terr- earth

(terrestrial, terrain)

tetr- four

(tetrad, tetraploid)

therm- heat

(thermophile, thermocycler)

trans- across

(transcribe, translate)

tri- three

(trisomy, triploid)

-trop- turn, change

(phototropism)

-troph food

(autotroph, heterotroph)

U

ultra- beyond

(ultraviolet)

uni- one

(unicellular)

V

vas- vessel

(vascular)

vect- carrier

(vector)

ventr- belly, underside

(ventral)

vitr- glass

(*in vitro*)

viv- life

(*in vivo*, viviparous)

-vor- eat

(omnivore)

X

xanth- yellow

(xanthophyll)

xyl- wood

(xylem)

Z

zo-, -zoa animal

(zoology, protozoa)

zyg- joined

(zygote, heterozygous)