

# Appendix C

## Lexicon of Biomedical Word Elements

**a-** no, not, without (atom, agranulocyte)  
**ab-** away (abducens, abduction)  
**acetabulo-** small cup (acetabulum)  
**acro-** tip, extremity, peak (acromion, acromegaly)  
**ad-** to, toward, near (adsorption, adrenal)  
**adeno-** gland (lymphadenitis, adenohypophysis)  
**aero-** air, oxygen (aerobic, anaerobe, aerophagy)  
**af-** toward (afferent)  
**ag-** together (agglutination)  
**-al** pertaining to (parietal, pharyngeal, temporal)  
**ala-** wing (ala nasi)  
**albi-** white (albicans, linea alba, albino)  
**algi-** pain (analgesic, myalgia)  
**aliment-** nourishment (alimentary)  
**allo-** other, different (allele, allosteric)  
**amphi-** both, either (amphiphilic, amphiarthrosis)  
**an-** without (anaerobic, anemic)  
**ana-** 1. up, build up (anabolic, anaphylaxis). 2. apart (anaphase, anatomy). 3. back (anastomosis)  
**andro-** male (androgen)  
**angi-** vessel (angiogram, angioplasty, hemangioma)  
**ante-** before, in front (antebrachium)  
**antero-** forward (anterior, anterograde)  
**anti-** against (antidiuretic, antibody, antagonist)  
**apo-** from, off, away, above (apocrine, aponeurosis)  
**arbor-** tree (arboreal, arborization)  
**artic-** 1. joint (articulation). 2. speech (articulate)  
**-ary** pertaining to (axillary, coronary)  
**-ase** enzyme (polymerase, kinase, amylase)  
**ast-, astro-** star (aster, astrocyte)  
**-ata, -ate** 1. possessing (hamate, corniculate). 2. plural of *-a* (stomata, carcinomata)  
**athero-** fat (atheroma, atherosclerosis)  
**atrio-** entryway (atrium, atrioventricular)  
**auri-** ear (auricle, binaural)  
**auto-** self (autolysis, autoimmune)  
**axi-** axis, straight line (axial, axoneme, axon)  
**baro-** pressure (baroreceptor, hyperbaric)  
**bene-** good, well (benign, beneficial)  
**bi-** two (bipedal, biceps, bifid)  
**bili-** bile (biliary, bilirubin)  
**bio-** life, living (biology, biopsy, microbial)  
**blasto-** precursor, bud, producer (fibroblast, osteoblast, blastomere)  
**brachi-** arm (brachium, brachialis, antebrachium)

**brady-** slow (bradycardia, bradypnea)  
**bucco-** cheek (buccal, buccinator)  
**burso-** purse (bursa, bursitis)  
**calc-** calcium, stone (calcaneus, hypocalcemia)  
**callo-** thick (callus, callosum)  
**calori-** heat (calorie, calorimetry, calorigenic)  
**calv-, calvari-** bald, skull (calvaria)  
**calyx** cup, vessel, chalice (glycolyx, renal calyx)  
**capito-** head (capitis, capitata, capitulum)  
**capni-** smoke, carbon dioxide (hypocapnia)  
**carcino-** cancer (carcinogen, carcinoma)  
**cardi-** heart (cardiac, cardiology, pericardium)  
**carot-** 1. carrot (carotene). 2. stupor (carotid)  
**carpo-** wrist (carpus, metacarpal)  
**case-** cheese (caseosa, casein)  
**cata-** down, break down (catabolism)  
**cauda-** tail (cauda equina, caudate nucleus)  
**-cel** little (pedicel)  
**celi-** belly, abdomen (celiac)  
**centri-** center, middle (centromere, centriole)  
**cephalo-** head (cephalic, encephalitis)  
**cervi-** neck, narrow part (cervix, cervical)  
**chiasm-** cross, X (optic chiasm)  
**choano-** funnel (choana)  
**chole-** bile (cholecystokinin, cholelithotripsy)  
**chondro-** 1. grain (mitochondria). 2. cartilage, gristle (chondrocyte, perichondrium)  
**chromo-** color (dichromat, chromatin, cytochrome)  
**chrono-** time (chronotropic, chronic)  
**cili-** eyelash (cilium, supraciliary)  
**circ-** about, around (circadian, circumduction)  
**cis-** cut (incision, incisor)  
**cisterna** reservoir (cisterna chyli)  
**clast-** break down, destroy (osteoclast)  
**clavi-** hammer, club, key (clavicle, supraclavicular)  
**-cle** little (tubercle, corpuscle)  
**cleido-** clavicle (sternocleidomastoid)  
**cnemo-** lower leg (gastrocnemius)  
**co-** together (coenzyme, cotransport)  
**collo-** 1. hill (colliculus). 2. glue (colloid, collagen)  
**contra-** opposite (contralateral)  
**corni-** horn (cornified, corniculate, cornu)  
**corono-** crown (coronary, corona, coronal)  
**corpo-** body (corpus luteum, corpora quadrigemina)

**corti-** bark, rind (cortex, cortical)  
**costa-** rib (intercostal, subcostal)  
**coxa-** hip (os coxae, coxal)  
**crani-** helmet (cranium, epicranium)  
**cribri-** sieve, strainer (cribriform, area cribrosa)  
**crino-** separate, secrete (holocrine, endocrinology)  
**crista-** crest (crista galli, mitochondrial crista)  
**crito-** to separate (hematocrit)  
**cruci-** cross (cruciate ligament)  
**-cule, -culus** small (canaliculus, trabecula, auricular)  
**cune-** wedge (cuneiform, cuneatus)  
**cutane-, cuti-** skin (subcutaneous, cuticle)  
**cysto-** bladder (cystitis, cholecystectomy)  
**cyto-** cell (cytology, cytokinesis, monocyte)  
**de-** down (defecate, deglutition, dehydration)  
**demi-** half (demifacet, demilune)  
**den-, denti-** tooth (dentition, dens, dental)  
**dendro-** tree, branch (dendrite, oligodendrocyte)  
**derma-, dermat-** skin (dermatology, hypodermic)  
**desmo-** band, bond, ligament (desmosome, syndesmosis)  
**dia-** 1. across, through, separate (diaphragm, dialysis). 2. day (circadian)  
**dis-** 1. apart (dissect, dissociate). 2. opposite, absence (disinfect, disability)  
**diure-** pass through, urinate (diuretic, diuresis)  
**dorsi-** back (dorsal, dorsum, latissimus dorsi)  
**duc-** to carry (duct, adduction, abducens)  
**dys-** bad, abnormal, painful (dyspnea, dystrophy)  
**e-** out (ejaculate, eversion)  
**-eal** pertaining to (hypophyseal, arboreal)  
**ec-, ecto-** outside, out of, external (ectopic, ectoderm, splenectomy)  
**ef-** out of (efferent, effusion)  
**-el, -elle** small (fontanel, organelle, micelle)  
**electro-** electricity (electrocardiogram, electrolyte)  
**em-** in, within (embolism, embedded)  
**emesi-, emeti-** vomiting (emetic, hyperemesis)  
**-emia** blood condition (anemia, hypoxemia)  
**en-** in, into (enzyme, parenchyma)  
**encephalo-** brain (encephalitis, telencephalon)  
**enchymo-** poured in (mesenchyme, parenchyma)  
**endo-** within, into, internal (endocrine, endocytosis)

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**entero-** gut, intestine (mesentery, myenteric)  
**epi-** upon, above (epidermis, epiphysis, epididymis)  
**ergo-** work, energy, action (allergy, adrenergic)  
**eryth-**, **erythro-** red (erythema, erythrocyte)  
**esthesio-** sensation, feeling (anesthesia, somesthetic)  
**eu-** good, true, normal, easy (eupnea, aneuploidy)  
**exo-** out (exopeptidase, exocytosis, exocrine)  
**facili-** easy (facilitated)  
**fasci-** band, bundle (fascia, fascicle)  
**fenestr-** window (fenestrated)  
**fer-** to carry (efferent, uriniferous)  
**ferr-** iron (ferritin, transferrin)  
**fibro-** fiber (fibroblast, fibrosis)  
**fili-** thread (myofilament, filiform)  
**flagello-** whip (flagellum)  
**foli-** leaf (folic acid, folia)  
**-form** shape (cuneiform, fusiform)  
**fove-** pit, depression (fovea)  
**funiculo-** little rope, cord (funiculus)  
**fusi-** 1. spindle (fusiform). 2. pour out (perfusion)  
**gamo-** marriage, union (monogamy, gamete)  
**gastro-** belly, stomach (digestive, gastrointestinal)  
**-gen**, **-genic**, **-genesis** producing, giving rise to (pathogen, carcinogenic, glycogenesis)  
**genio-** chin (geniohyoid, genioglossus)  
**germi-** 1. sprout, bud (germinal, germinativum). 2. microbe (germicide)  
**gero-** old age (progeria, geriatrics, gerontology)  
**gesto-** 1. to bear, carry (ingest). 2. pregnancy (gestation, progesterone)  
**glia-** glue (neuroglia, microglia)  
**globu-** ball, sphere (globulin, hemoglobin)  
**glom-** ball (glomerulus)  
**glosso-** tongue (hypoglossal, glossopharyngeal)  
**glyco-** sugar (glycogen, glycolysis, hypoglycemia)  
**gono-** 1. angle, corner (trigone). 2. seed, sex cell, generation (gonad, oogonium, gonorrhea)  
**gradi-** walk, step (retrograde, gradient)  
**-gram** recording of (sonogram, electrocardiogram)  
**-graph** recording instrument (sonograph, electrocardiograph)  
**-graphy** recording process (sonography, radiography)  
**gravi-** severe, heavy (gravid, myasthenia gravis)  
**gyro-** turn, twist (gyrus)  
**hallu-** great toe (hallux, hallucis)  
**hemi-** half (hemidesmosome, hemisphere)  
**-hemia** blood condition (polycythemia)  
**hemo-** blood (hemophilia, hemoglobin, hematology)  
**hetero-** different, other, various (heterozygous)  
**histo-** tissue, web (histology, histone)  
**holo-** whole, entire (holistic, holocrine)  
**homeo-** constant, unchanging, uniform (homeostasis, homeothermic)

**homo-** same, alike (homologous, homozygous)  
**hyalo-** clear, glassy (hyaline, hyaluronic acid)  
**hydro-** water (dehydration, hydrolysis, hydrophobic)  
**hyper-** above, above normal, excessive (hyperkalemia, hypertonic)  
**hypo-** below, below normal, deficient (hypogastric, hyponatremia, hypophysis)  
**-ia** condition (anemia, hypocalcemia, osteomalacia)  
**-ic** pertaining to (isotonic, hemolytic, antigenic)  
**-icle**, **-icul** small (ossicle, canaliculus, reticular)  
**ilia-** flank, loin (ilium, iliac)  
**-illa**, **-illus** little (bacillus)  
**-in** protein (trypsin, fibrin, globulin)  
**infra-** below (infraspinal, infrared)  
**ino-** fiber (inotropic, inositol)  
**insulo-** island (insula, insulin)  
**inter-** between (intercellular, intervertebral)  
**intra-** within (intracellular, intraocular)  
**iono-** ion (ionotropic, cationic)  
**ischi-** to hold back (ischium, ischemia)  
**-ism** 1. process, state, condition (metabolism, rheumatism). 2. doctrine, belief, theory (holism, reductionism, naturalism)  
**iso-** same, equal (isometric, isotonic, isomer)  
**-issimus** most, greatest (latissimus, longissimus)  
**-ite** little (dendrite, somite)  
**-itis** inflammation (dermatitis, gingivitis)  
**jug-** to join (conjugated, jugular)  
**juxta-** next to (juxtamedullary, juxtaglomerular)  
**kali-** potassium (hypokalemia)  
**karyo-** seed, nucleus (megakaryocyte, karyotype)  
**kerato-** horn (keratin, keratinocyte)  
**kine-** motion, action (kinetic, kinase, cytokinesis)  
**labi-** lip (labium, levator labii)  
**lacer-** torn, cut (foramen lacerum, laceration)  
**lacrimo-** tear, cry (lacrimal gland, nasolacrimal)  
**lacto-** milk (lactose, lactation, prolactin)  
**lamina-** layer (lamina propria, laminar flow)  
**latero-** side (bilateral, ipsilateral)  
**lati-** broad (fascia lata, latissimus dorsi)  
**-lemma** husk (sarcolemma, neurilemma)  
**lenti-** lens (lenticorn)  
**-let** small (platelet)  
**leuko-** white (leukocyte, leukemia)  
**levato-** to raise (levator labii, elevation)  
**ligo-** to bind (ligand, ligament)  
**line-** line (linea alba, linea nigra)  
**litho-** stone (otolith, lithotripsy)  
**-logy** study of (histology, physiology, hematology)  
**lucid-** light, clear (stratum lucidum, zona pellucida)  
**lun-** moon, crescent (lunate, lunule, semilunar)

**lute-** yellow (macula lutea, corpus luteum)  
**lyso-**, **lyto-** split apart, break down (lysosome, hydrolysis, electrolyte, hemolytic)  
**macro-** large (macromolecule, macrophage)  
**macula-** spot (macula lutea, macula densa)  
**mali-** bad (malignant, malocclusion, malformed)  
**malle-** hammer (malleus, malleolus)  
**mammo-** breast (mammary, mammillary)  
**mano-** hand (manus, manipulate)  
**manubri-** handle (manubrium)  
**masto-** breast (mastoid, gynecomastia)  
**medi-** middle (medial, mediastinum, intermediate)  
**medullo-** marrow, pith (medulla)  
**mega-** large (megakaryocyte, hepatomegaly)  
**melano-** black (melanin, melanocyte, melancholy)  
**meno-** month (menstruation, menopause)  
**mento-** chin (mental, mentalis)  
**mero-** part, segment (isomer, centromere, merocrine)  
**meso-** in the middle (mesoderm, mesentery)  
**meta-** beyond, next in a series (metaphase, metacarpal)  
**metabolo-** change (metabolism, metabolite)  
**-meter** measuring device (calorimeter, spirometer)  
**metri-** 1. length, measure (isometric, emmetropic). 2. uterus (endometrium)  
**micro-** small (microscopic, microcytic, microglia)  
**mito-** thread, filament, grain (mitochondria, mitosis)  
**mono-** one (monocyte, monogamy, mononucleosis)  
**morpho-** form, shape, structure (morphology, amorphous)  
**muta-** change (mutagen, mutation)  
**myelo-** 1. spinal cord (poliomyelitis, myelin). 2. bone marrow (myeloid, myelocytic)  
**myo-**, **mysi-** muscle (myoglobin, myosin, epimysium)  
**natri-** sodium (hyponatremia, natriuretic)  
**neo-** new (neonatal, gluconeogenesis)  
**nephro-** kidney (nephron, hydronephrosis)  
**neuro-** nerve (aponeurosis, neurosoma, neurology)  
**nucleo-** nucleus, kernel (nucleolus, nucleic acid)  
**oo-** egg (oogenesis, oocyte)  
**ob-** 1. life (aerobic, microbe). 2. against, toward, before (obstetrics, obturator, obstruction)  
**oculo-** eye (oculi, oculomotor)  
**odonto-** tooth (odontoblast, periodontal)  
**-oid** like, resembling (colloid, sigmoid, amoeboid)  
**-ole** small (arteriole, bronchiole, nucleolus)  
**oligo-** few, a little, scanty (oligopeptide, oliguria)  
**-oma** tumor, mass (carcinoma, hematoma)  
**omo-** shoulder (omohyoid, acromion)  
**onycho-** nail, claw (hyponychium, onychomycosis)

**op-** vision (optics, myopia, photopic)  
**-opsy** viewing, to see (biopsy, rhodopsin)  
**or-** mouth (oral, orbicularis oris)  
**orbi-** circle (orbicularis, orbit)  
**organo-** tool, instrument (organ, organelle)  
**ortho-** straight (orthopnea, orthodontics, orthopedics)  
**-ose** **1.** full of (adipose). **2.** sugar (sucrose, glucose)  
**-osis** **1.** process (osmosis, exocytosis).  
**2.** condition, disease (cyanosis, thrombosis).  
**3.** increase (leukocytosis)  
**osmo-** push (osmosis, chemiosmotic)  
**osse-, oste-** bone (osseous, osteoporosis)  
**oto-** ear (otolith, otitis, parotid)  
**-ous** **1.** full of (nitrogenous, edematous).  
**2.** pertaining to (mucous, nervous). **3.** like, characterized by (squamous, filamentous)  
**ovo-** egg (ovum, ovary, ovulation)  
**oxy-** **1.** oxygen (hypoxia, oxyhemoglobin).  
**2.** sharp, quick (oxytocin)  
**palli-** pale (pallor, globus pallidus)  
**palpebro-** eyelid (palpebrae)  
**pan-** all (panhypopituitarism, pancreas)  
**panni-** cloth, rag (pannus, panniculus)  
**papillo-** nipple (papilla, papillary)  
**par-** birth (postpartum, parturition, multiparous)  
**para-** next to (parathyroid, parotid)  
**parieto-** wall (parietal)  
**patho-** **1.** disease (pathology, pathogen).  
**2.** feeling (sympathetic)  
**pecto-** **1.** chest (pectoralis). **2.** comblike (pectineus)  
**pedi-** **1.** foot (bipedal, pedicle). **2.** child (pediatrics)  
**pelvi-** basin (pelvis, pelvic)  
**-penia** deficiency (leukopenia, thrombocytopenia)  
**penna-** feather (unipennate, bipennate)  
**peri-** around (periosteum, peritoneum, periodontal)  
**perone-** fibula (peroneus tertius, peroneal nerve)  
**phago-** eat (phagocytosis, macrophage)  
**philo-** loving, attracted to (hydrophilic, amphiphilic)  
**phobo-** fearing, repelled by (hydrophobic)  
**phor-** to carry, bear (diaphoresis, electrophoresis)  
**phragm-** partition (diaphragm)  
**phreno-** diaphragm (phrenic nerve)  
**physio-** nature, natural cause (physiology, physician)  
**-physis** growth (diaphysis, hypophysis)  
**pilo-** hair (piloerection)  
**pino-** drink, imbibe (pinocytosis)  
**planto-** sole of foot (plantaris, plantar wart)  
**plasi-** growth (hyperplasia)  
**plasm-** shaped, molded (cytoplasm, endoplasmic)  
**plasti-** form (thromboplastin)  
**platy-** flat (platysma)

**pnea-** breath, breathing (eupnea, dyspnea)  
**pneumo-** air, breath, lung (pneumonia, pneumothorax)  
**podo-** foot (pseudopod, podocyte)  
**poies-** forming (hemopoiesis, erythropoietin)  
**poly-** many, much, excessive (polypeptide, polyuria)  
**primi-** first (primary, primipara, primitive)  
**pro-** **1.** before, in front, first (prokaryote, prophase, prostate). **2.** promote, favor (progesterone, prolactin)  
**pseudo-** false (pseudopod)  
**psycho-** mind (psychosis, psychosomatic)  
**ptero-, pterygo-** wing (pterygoid)  
**-ptosis** dropping, falling, sagging (apoptosis, nephroptosis)  
**puncto-** point (puncta)  
**pyro-** fire (pyrogen, antipyretic)  
**quadri-** four (quadriceps, quadratus)  
**quater-** fourth (quaternary)  
**radiat-** radiating (corona radiata)  
**rami-** branch (ramus)  
**recto-** straight (rectus abdominis, rectum)  
**reno-** kidney (renal, renin)  
**reti-** network (reticular, rete testis)  
**retinac-** retainer, bracelet (retinaculum)  
**retro-** behind, backward (retroperitoneal, retrovirus)  
**rhombo-** rhombus (rhomboideus, rhombencephalon)  
**rubo-, rubro-** red (bilirubin, rubrospinal)  
**ruغو-** fold, wrinkle (ruga, corrugator)  
**sacculo-** little sac (sacculae)  
**sarco-** flesh, muscle (sarcooplasm, sarcomere)  
**scala-** staircase (scala tympani)  
**sclero-** hard, tough (sclera, sclerosis)  
**scopo-** see (microscope, endoscopy)  
**secto-** cut (section, dissection)  
**semi-** half (semilunar, semimembranosus)  
**sepsi-** infection (asepsis, septicemia)  
**-sis** process (diapedesis, amniocentesis)  
**sole-** sandal, sole of foot, flatfish (sole, soleus)  
**soma-, somato-** body (somatic, somatotropin)  
**spheno-** wedge (sphenoid)  
**spiro-** breathing (inspiration, spirometry)  
**splanchno-** viscera (splanchnic)  
**spleno-** **1.** bandage (splenius capitis). **2.** spleen (splenic artery)  
**squamo-** scale, flat (squamous, desquamation)  
**stasi-, stati-** put, remain, stay the same (hemostasis, homeostatic)  
**steno-** narrow (stenosis)  
**ster-, stereo-** solid, three-dimensional (steroid, stereoscopic)  
**sterno-** breast, chest (sternum, sternocleidomastoid)  
**stria-** stripe (striated, corpus striatum)  
**sub-** below (subcutaneous, subclavicular)  
**sulc-** furrow, groove (sulcus)

**supra-** above (supraspinous, supraclavicular)  
**sura-** calf of leg (triceps surae)  
**sym-** together (sympathetic, symphysis)  
**syn-** together (synostosis, syncytium)  
**tachy-** fast (tachycardia, tachypnea)  
**tarsi-** ankle (tarsus, metatarsal)  
**tecto-** roof, cover (tectorial membrane, tectum)  
**telo-** last, end (telophase, telencephalon, telodendria)  
**tempo-** time (temporal)  
**terti-** third (tertiary)  
**theli-** nipple, female, tender (epithelium, polythelia)  
**thermo-** heat (thermogenesis, thermoregulation)  
**thrombo-** blood clot (thrombosis, thrombin)  
**thyro-** shield (thyroid, thyrohyoid)  
**-tion** process (circulation, pronation)  
**toci-** birth (oxytocin)  
**tomo-** **1.** cut (tomography, atom, anatomy).  
**2.** segment (dermatome, myotome, sclerotome)  
**tono-** force, tension (isotonic, tonus, myotonia)  
**topo-** place, position (isotope, ectopic)  
**trabo-** plate (trabecula)  
**trans-** across (transpiration, transdermal)  
**trapezi-** **1.** table, grinding surface (trapezium). **2.** trapezoid (trapezius)  
**tri-** three (triceps, triglyceride)  
**tricho-** hair (trichosiderin, peritrichial)  
**trocho-** wheel, pulley (trochlea)  
**troph-** **1.** food, nourishment (trophic, trophoblast). **2.** growth (dystrophy, hypertrophy)  
**tropo-** to turn, change (metabotropic, gonadotropin)  
**tunica-** coat (tunica intima, tunica vaginalis)  
**tympano-** drum, eardrum (tympanic, tensor tympani)  
**-ul** small (trabecula, tubule, capitulum, glomerulus)  
**-uncle, -unculus** small (homunculus, caruncle)  
**uni-** one (unipennate, unipolar)  
**uri-** urine (glycosuria, urinalysis, diuretic)  
**utriculo-** little bag (utriculus)  
**vagino-** sheath (invaginate, tunica vaginalis)  
**vago-** wander (vagus)  
**vaso-** vessel (vascular, vas deferens, vasa recta)  
**ventro-** belly, lower part (ventral, ventricle)  
**vermi-** worm (vermis, vermiform appendix)  
**vertebro-** spine (vertebrae, intervertebral)  
**vesico-** bladder, blister (vesical, vesicular)  
**villo-** hair, hairy (microvillus)  
**vitre-** glass (in vitro, vitreous humor)  
**vivi-** life, alive (in vivo, revive)  
**zygo-** union, join, mate (zygomatic, zygote, azygos)