Combining Form

- Nerve or Neuron
- Vessel
- Muscle
- Artery
- Clot
- Vein
- Blood
- Fatty or Porridgelike
- Germ, Embryonic
- Involuntary Contraction
- Hard
- Breaking Down, Destruction
- Fibrous, Fiber
- Hem/o, Hemat/o
- Ather/o
- Blast/o
- Spasm/o
- Scler/o
- Lys/o
- Fibr/o
- Neur/o
- Angi/o
- My/o
- Arteri/o
- Thromb/o
- Phleb/o
- Ven/i

With -blast

- Neur/o/blast: A germ cell from which a nerve cell develops
- Angi/o/blast: A germ cell from which vessels develop
- My/o/blast: A germ cell from which a muscle cell develops

With -spasm

- A spasm of a muscle
- A spasm of a vessel
- A spasm of a nerve
- A spasm of an artery
- A spasm of a stomach
- My/o/spasm
- Angi/o/spasm
- Neur/o/spasm
- Arteri/o/spasm
- Gastr/o/spasm

Using -pathy

- Angi/o/pathy: A generalized disease condition of the vessels
- Neur/o/pathy: A generalized disease condition of the nerves
- My/o/pathy: A generalized disease condition of the muscles
Using -sclerosis

- Angi/o/sclerosis: A hardening of a vessel
- Neuroid/sclerosis: A (condition of) hardening of nerve tissue
- My/o/sclerosis: A hardening of muscle tissue

Neur/o + Suffix

- Neur/o/logist: A specialist who studies nervous system disorders
- Neur/o/logy: The study of the nervous system
- Neuroiditis: Inflammation of a nerve
- Neur/o/surgeon: A physician who performs surgery on or near nerves

Using -oma

- A nerve tumor
- A muscle tumor
- A vessel tumor
- A fibrous tumor

- Neur/ooma
- My/ooma
- Angi/ooma
- Fibr/ooma

Using -lysis

- Destruction of muscle tissue
- Destruction of nerve tissue
- Destruction of vessels
- Destruction of fat
- Destruction of cells

- My/o/lysis
- Neuroid/lysis
- Angi/o/lysis
- Lip/o/lysis
- Cyt/o/lysis

Arteri/o = Arteries

- Arteri/o/sclerosis: Hardening of the arteries
- Arteri/o/fibrosis: A fibrous condition of the arteries
- Arteri/o/malacia: A softening of the arteries
Ather/o = Fatty, Porridgelike
- Ather/o/scler/o/sis: Hardening of the blood vessels caused by a fatty substance (atheroma)
- Can decrease vascular supply causing ischemia (temporary lack of blood flow) and necrosis (dead tissues), leading to myocardial infarction (heart attack) or cerebral infarction (stroke).
- Ather/o/scler/o/tic coronary artery disease causes Angina Pectoris
- Ather/oectomy or End/arter/oectomy: Excision of an ather/oma
  - Commonly performed on the carotid artery

Atherosclerotic Plaque Formation

Hem/o, Hemat/o = Blood
- Hem/angi/o: A benign tumor of a blood vessel
- Hem/angi/o/blast: An embryonic blood vessel cell
- Hem/arthr/o sis: A condition of blood in a joint
- Hemat/o/lysis or hem/o/lysis: Destruction of blood cell
- Hemat/o/phobia: An abnormal fear of blood
- Hemat/o/logy: The study of blood
- Hemat/o/logist: One who specializes in the science of blood

Atherosclerosis → Myocardial Infarction

Hemangioma

Thromb/o = Blood Clot
- Thromb/o/angi/o/tis: Inflammation of a vessel with formation of a blood clot
- Thromb/o/ctomy: Excision of a thrombus (clot)
- Thromb/o/us (singular): clot
- Thromb/o/i (plural): clots
- Thromb/o/lymph/o/ang/o/tis: Inflammation of a lymph vessel with formation of a thrombus
- Thromb/o/phleb/o/tis: Inflammation of a vein with thrombus formation
  - Phleb/o = vein
**Thromb/o = Blood Clot**

- Thromb/osis: A condition of forming a thrombus
- Thromb/o/cyte: A cell that aids clotting
- Thromb/oid: Resembling a thrombus
- Thromb/o/gen/ic: Pertaining to the formation of a thrombus
- Thromb/o/lysis: Destruction of a thrombus
- Thromb/o/cyt/o/penia: Lack of cells that aid in clotting (platelets)

**Thrombotic Events**

- A thrombus may occlude a vessel, causing ischemia, producing an infarct. In heart muscle, this condition is called myocardial infarction (MI).
  - Occlusion = Blockage in a vessel
  - Infarction = Necrosis of tissue due to ischemia
  - Myocardial = Pertaining to heart muscles
  - Myocardial infarction = A heart attack
- If an cerebral artery is occluded, Cerebral Infarction can occur
  - Cerebral infarction = CVA, stroke

**Cerebral Infarction**

**Embolic Events**

- A piece of thrombus may break off and move through blood vessels to another part of the body. This moving thrombus is called an “Embolus”. Embolus can cause myocardial infarction or cerebral infarction also.

**Phleb/o = Vein**

- Arteries carry oxygenated blood away from the heart.
- Veins carry deoxygenated blood back to the heart.
- Phleb/o/scler/osis: Hardening of veins
- Phleb/ection: Excision of a vein
- Phleb/o/pexy: Surgical fixation of a vein
- Phleb/o/plasty: Surgical repair of a vein
- Phleb/o/tomy: Incision into a vein, or venipuncture (for blood draw)
**Ven/o, Ven/i = Vein**

- Ven/i/puncture: A procedure performed to obtain a venous blood samples
- Ven/i/ous: Pertaining to veins
- IV injection = Intravenous injection: injecting inside vein

**Angi/o/plasty**: Repair of a vessel
  - i.e. Balloon angioplasty = PTCA (percutaneous transluminal coronary angioplasty)

**Angi/o/graphy**: Process of obtaining an x-ray of a vessel
  - i.e. coronary angiography

**Angi/o/scopy**: Process of using a looking device to examine a vessel

**Phleb/o/plasty**: Repair of a vein

**Phleb/o/graphy, Ven/o/graphy**: Process of obtaining an x-ray of a vein

**Angioplasty**

(PTCA = percutaneous transluminal coronary angioplasty)

**-ectasia = Stretching, Dilation**

- Dilation or Dilatation = Stretching or increase in diameter

- Phleb/ectasia: Venous dilatation (stretching)
- Arteri/ectasia: Arterial dilatation
- Angi/ectasia: Vessel dilatation

**-rrhexis = Rupture**

- Rupture of the uterus
- Rupture of the bladder
- Rupture of the small intestine
- Rupture of the heart
- Rupture of a vessel
- Rupture of an artery
- Rupture of a vein

- Hyster/o/rrhexis, Metr/o/rrhexis
- Cyst/o/rrhexis
- Enter/o/rrhexis
- Cardi/o/rrhexis
- Angi/o/rrhexis
- Arteri/o/rrhexis
- Phleb/o/rrhexis

**“rrh” rrreview (I mean review…)**

- -rrhea
- -rrhagia
- -rrhaphy
- -rrhexis

- Discharge or flow
- Hemorrhage
- Suture
- Rupture
With hepat/o
- Hepat/o/rhexis: Rupture of the liver
- Hepat/o/rraphy: Suturing of the liver (wound)
- Hepat/o/rrhea: Excessive discharge of bile from the liver

With Cyst/o
- Cyst/o/rhexis: Rupture of the bladder
- Cyst/o/rrhagia: Hemorrhage from the bladder
- Cyst/o/rrhea: Discharge from the bladder
- Cyst/o/rraphy: Suturing of the bladder

Esthesia = Feeling, Sensation
- Esthesi/o/meter: A device for measuring tactile sensitivity
- An/esthesi/a: Without or lack of sensation
- An/esthesi/o/logy: Study or specialty of anesthesia
- An/esthesi/o/logist: A physician specialist in anesthesia
- An/esthet/ic: (n.) An agent that produces anesthesia. (adj.) Pertaining to anesthesia.
- Dys/esthesi/a: Abnormal sensation on the skin
- Hypo/esthesi/a: A dulled sensitivity to touch

Algesia = Oversensitivity to Pain
- Algesia = Hyper/esthesi/a = Oversensitivity to pain
- Alges/i/meter: Instrument used to measure pain
- Alges/ic: Pertaining to pain
- An/alges/i/a: Condition without pain

Para- = Beside, Near, Abnormal
- Analgesia: Without pain
- Paralgesia: Abnormal pain
- Paralgia: Abnormal pain
- Paraplegia: Paralysis of the lower body
- Para/lysis: Loss of muscle function and sensation
- Means beside, beyond, near, abnormal
- Para/neph/itis: Inflammation near the kidney
- Para/hepat/itis: Inflammation near the liver
- Para/medic: Works beside a physician assisting in rescue operation – EMT with advanced training
- Para/salping/itis: Inflammation near the fallopian tubes
- Para/oste/o/arthr/o/pathy: Disease near a bone and joint
Phas/o = Speech
- Para/phasis: Abnormal speech (dysfunction)
- Aphasia: Unable to speak (without speech)
- Bradyphasis: Slow speech
- Tachyphasis: Fast speech
- Dysphasis: Difficulty speaking
- Phasology: The study of speech

Paroxysmal = Irritation
- Paroxysmos = Irritation. A symptom that comes suddenly. Occurring repeatedly and without warning.
- Paroxysmal Nocturnal Dyspnea (PND): Sudden onset of shortness of breath at night

Combining Form
- My/o
- Aud/i/o
- Phon/o
- Phas/o
- Kinesi/o
- Muscle
- Hearing
- Voice, Vocal Sounds
- Speech
- Movement

Phon/o = Voice, Vocal Sounds
- Aphonia: Unable to make sounds
- Dysphonia: Weak voice
- Phon/ic: Pertaining to the voice
- Phon/o: An instrument for measuring intensity of vocal sounds
- Phonology: The study of voice or vocal sounds

My/o = Muscle
- Myon = Muscle
- Myo/card/itis: Inflammation of the heart muscle
- My/o: The chart/tracing of muscular contractions
- My/o: The instrument to record muscular contractions with myograph
- Myography: The process of recording muscular contractions with myograph
- Myasthenia gravis: A motor disorder/disease marked by muscular fatigue and weakness.

Muscle Types
- Rhabdomy/o
  - Striated (skeletal, voluntary)
  - Covers: skeleton
  - Function: Skeletal movement
- Leiomy/o
  - Smooth (Visceral, Involuntary)
  - Covers: organs, vessels
  - Function: Movements of liquids, gases, and solids
- Myocard/i/o
  - Cardiac
  - Covers: heart
  - Function: Maintain heartbeat
**My/o = Muscle**
- Myofibroma: A fibrous muscle tumor
- Leiomyoma uteri: Uterine fibroid tumor
- Myometrium: Uterine muscle
- Myoid: Resembling muscle
- Myolipoma: Muscle tumor containing fatty elements
- Myopathy: Muscle disease
- Cardiomyopathy (or myocardiopathy): Heart muscle disease

**Kinesi/o = Movement or Motion**
- Bradykinesia: Slowness of movement
- Kinesialgia: Pain with movement
- Kinesiography: Study of muscular body movements

**Abbreviation**
- AANA: American Association of Nurse Anesthetists
- AART: American Association of Rehabilitation Therapy
- ACPMR: American Congress of Physical Medicine and Rehabilitation
- ADL: Activities of daily living
- AE: Above the elbow
- AK: Above the knee
- AOD: Arterial occlusive disease
- APTA: American Physical Therapy Association

**Abbreviation**
- AS: Arteriosclerosis, Left ear
- ASCVD: Arteriosclerotic cardiovascular disease
- ASHD: Arteriosclerotic heart disease
- BE: Below the elbow, Barium enema
- BK: Below the knee
- CABG: Coronary artery bypass graft
- CAD: Coronary artery disease
- CRNA: Certified registered nurse anesthetist
- C-Section: Cesarean section

**Abbreviation**
- EMG: Electromyogram
- HA: Hearing aid, Headache
- HDL: High-density lipoproteins
- IV: Intravenous
- LDL: Low-density lipoproteins
- MD: Muscular dystrophy, myocardial disease, Medical doctor
- MFT: Muscle function test
- MHz: Megahertz
- MI: Myocardial infarction

**Abbreviation**
- MS: Multiple Sclerosis
- PND: Paroxysmal Nocturnal Dyspnea
- PT, Protime: Prothrombin time
- PT: Physical therapy (therapist)
- PTT: Partial thromboplastin time
- ROM: Range of motion
- SOB: Short of breath
- TENS: Transcutaneous electric nerve stimulation