## Medical Terminology

### Unit 8
Neurology, Psychology, Anesthesiology, and Vascular Terminology

### Combining Form
- Nerve or Neuron
- Vessel
- Muscle
- Artery
- Clot
- Vein

### 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

### 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

### Combining Form
- Neur/o
- Angi/o
- My/o
- Arteri/o
- Thromb/o
- Phleb/o
- Ven/i

### Combining Form
- Blood
- Fatty or Porridgelike
- Germ, Embryonic
- Involuntary Contraction
- Hard
- Breaking Down, Destruction
- Fibrous, Fiber

### Combining Form
- Hem/o, Hemat/o
- Ather/o
- Blast/o
- Spasm/o
- Scler/o
- Lys/o
- Fibr/o
Using -sclerosis
- Angi/o/scler/osis: A hardening of a vessel
- Neur/o/scler/osis: A (condition of) hardening of nerve tissue
- My/o/scler/osis: A hardening of muscle tissue

Using -oma
- A nerve tumor
- A muscle tumor
- A vessel tumor
- A fibrous tumor

Using -lysis
- Destruction of muscle tissue
- Destruction of nerve tissue
- Destruction of vessels
- Destruction of fat
- Destruction of cells
- My/o/lysis
- Neur/o/lysis
- Angi/o/lysis
- Lip/o/lysis
- Cyt/o/lysis

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

Neur/o + Suffix
- Neur/o/pathy: Any disease of the nerves
- Neur/o/arthro/o/pathy: A disease of nerves and joints
- Neur/o/lysis: Destruction of nerve tissue
- Neur/o/plasty: Surgical repair of nerves
- Neur/o/tripsy: Surgical crushing of a nerve

A vs. E
- Afferent: Inflowing, toward a center, to bring to
- Affect: to have influence upon
- Accept: include, bring toward, embrace
- Affusion: pouring upon, (pouring water upon body)

- Efferent: Outflowing, away from a center, to carry away
- Effect: the result or consequence of an action
- Except: Exclude, keep away, reject
- Effusion: Escaping of fluid from its normal place
-tripsy = Crushing

- Tripsis = Rubbing, massage, crushing, grinding
- Neur/o/tripsy: Surgical crushing of a nerve
- Lith/o/tripsy: Surgical crushing of stones (as in the bladder or ureters) using therapeutic ultrasound

Myel/o = Bone Marrow -or- Spinal Cord

- Myel/o/blast
  - Immature bone marrow cell
- Myel/o/cyt/ic
  - Pertaining to myelocyte
- Myel/o/dys/plasia
  - Defective formation of the spinal cord
- Neur/o/myel/itis
  - Inflammation of nerves and spinal cord
- Myel/o/cele
  - Herniation of the spinal cord

-plasia = Formation

- Formation or change in development of the sense of molding and numbers of cells
- Dys/plasia: defective formation
- Myel/o/dys/plasia: defective formation of the spinal cord
- Chondr/o/dys/plasia: defective formation of cartilage
- Oste/o/chondr/o/dys/plasia: defective formation of bone and cartilage

Psych/o = Mind, Mental Process

- Psych/o/logy: The study of the mind, mental process, and human behavior
- Psych/o/analysis: Method of psychotherapy which includes obtaining a thorough mental, social, and emotional history to uncover subconscious conflicts
- Psych/o/somatic: Physical ailment with mental or emotional origin
- Psych/o/sexual: Thoughts and emotions that affect sexual function

Psych/o = Mind, Mental Process

- Psych/iatry: The field of medicine that studies and deals with mental and neurotic disorders
- Psych/iatrist: The physician who specializes in the field of psychiatry
- Psyche = the soul, spirit, or breath that creates life
- Psych/o/logy: The science that studies human behavior
- Psych/o/logist: Scientist who researches or therapist who treats individuals for mental disorders
Psych/o = Mind, Mental Process

- Psych/o/therapy: A process of healing mental disorders using words, art, drama, or movement to express feelings
- Psych/ogenesis: The formation of mental characteristics
- Psych/osis: A severe mental condition marked by loss of contact with reality, delusions, or hallucinations

Psych/o = Mind, Mental Process

- Psych/o/neur/osis or Neur/osis: An emotional and behavioral disorder, manifested by anxiety
  - Obsessive-compulsive disorder (OCD) is a neurosis characterized by repeated distressing thoughts that produce anxiety and uncontrollable repeated actions that must be done to relieve the anxiety.
  - Psychoneuroses, Neuroses (plural form)

Psych/o = Mind, Mental Process

- Psych/o/trop/ic: Medication that alters mind and emotions
- Psych/o/motor: Mental processes that cause movement
- Psych/o/path/ic: Pertaining to one with a defective character or personality, or pertaining to the treatment of mental disorders
- Psych/iatriic: Pertaining to psychiatry

Pharmac/o = Drugs, Medicine

- Neur/o/pharmac/o/logy: The study of drugs that affect the nervous system
- Psych/o/pharmac/o/logy: The study of drugs that act on the mind and emotions
  - Examples: antidepressants, tranquilizers, neuroleptics, sedatives, anticonvulsants
- Pharmac/o/logy: The study of drugs and their origin, nature, properties, and effects
- Pharmac/ist: A person licensed to prepare and dispense drugs

Narc/o = Sleep

- Narc/o/tic: a drug that produces sleep
  - Opium, codeine, morphine
  - Morpheus = Greek god of dreams
  - Produces pain relief, numbness, or stuporous sleep
- Narc/osis: Condition induced by narcotics

Narc/o = Sleep

- Narc/o/lepsy: A type of sleep disorder where one is unable to stay awake. “Seizure or attacks of sleep”
  - Epilepsia = to seize upon
  - Epilepsy: Seizure disorders
  - -lepsy = Seizure
  - May be caused by cerebroma, cerebral arteriosclerosis, and paresis
Arteri/o = Arteries

- Arteri/o/scler/osis: Hardening of the arteries
- Arteri/o/fibr/osis: A fibrous condition of the arteries
- Arteri/o/malacia: A softening of the arteries

Ather/o = Fatty, Porridgelike

- Ather/o/scler/osis: 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/otic coronary artery disease causes Angina Pectoris
- Ather/ectomy or End/arter/ectomy: Excision of an ather/oma
- Commonly performed on the carotid artery

Atherosclerotic Plaque Formation

Hem/o, Hemat/o = Blood

- Hem/angi/oma: 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
Hemangioma

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

Thromb/o = Blood Clot
- Thrombosis: A condition of forming a thrombus
- Thromb/o/cyte: A cell that aids clotting
- Thromb/o/id: 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 “Emboli”. Emboli 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/sclerosis: Hardening of veins
- Phlebectomy: 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
- Venous: 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

“rrh” rrview (I mean review…)
- -rrhe
- -rrhagia
- -rrhaphy
- -rrhexis
- Discharge or flow
- Hemorrhage
- Suture
- Rupture

With hepat/o
- Hepat/o/rrhexis: Rupture of the liver
- Hepat/o/rrhaphy: Sutting of the liver (wound)
- Hepat/o/rrhea: Excessive discharge of bile from the liver

With Cyst/o
- Cyst/o/rrhexis: Rupture of the bladder
- Cyst/o/rrhagia: Hemorrhage from the bladder
- Cyst/o/rrhea: Discharge from the bladder
- Cyst/o/rrhaphy: 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/ist: A person who administers anesthetic agents
- 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
- Means beside, beyond, near, abnormal
- Para/nephritis: Inflammation near the kidney
- Para/hepatitis: Inflammation near the liver
- Para/medic: Works beside a physician assisting in rescue operation – EMT with advanced training
- Para/salpingitis: Inflammation near the fallopian tubes
- Para/osteoarthropathy: Disease near a bone and joint

Para- = Beside, Near, Abnormal
- Para/noid: Delusions of persecution
- Para/sympathetic: Part of the autonomic nervous system (running besides sympathetic nerves)
  - Sympathetic nerves send signals to prepare the body to fight or flight when danger is near
  - Parasympathetic nerves return the body to its normal resting state
- Par/esthesia: Abnormal touch sensation

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: Muscle
- Kinesi/o: Movement
- Rhabd/o: Rod shaped
- Lip/o: Fat
- Fibr/o: Fibrous

Suffix
- -graph: Instrument for recording
- -gram: Record, picture
- -algia: Pain
- -logy: Study of
- -oma: Tumor
- -pathy: Disease
# My/o = Muscle

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

## Muscle Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Covering</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhabdomy/o</td>
<td>Skeletal, voluntary</td>
<td>Skeletal movement</td>
</tr>
<tr>
<td>Leiomy/o</td>
<td>Organs, vessels</td>
<td>Movements of liquids, gases, and solids</td>
</tr>
<tr>
<td>Myocard/o</td>
<td>Heart</td>
<td>Maintain heartbeat</td>
</tr>
</tbody>
</table>

## Kinesi/o = Movement or Motion

- Brady/kinesia: Slowness of movement
- Kinesi/algia: Pain with movement
- Kinesi/o/logy: Study of muscular body movements

## Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AANA</td>
<td>American Association of Nurse Anesthetists</td>
</tr>
<tr>
<td>AART</td>
<td>American Association of Rehabilitation Therapy</td>
</tr>
<tr>
<td>ACPMR</td>
<td>American Congress of Physical Medicine and Rehabilitation</td>
</tr>
<tr>
<td>ADL</td>
<td>Activities of daily living</td>
</tr>
<tr>
<td>AE</td>
<td>Above the elbow</td>
</tr>
<tr>
<td>AK</td>
<td>Above the knee</td>
</tr>
<tr>
<td>AOD</td>
<td>Arterial occlusive disease</td>
</tr>
<tr>
<td>ANS</td>
<td>Autonomic nervous system</td>
</tr>
<tr>
<td>APTA</td>
<td>American Physical Therapy Association</td>
</tr>
</tbody>
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## Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AS</td>
<td>Arteriosclerosis, Left ear</td>
</tr>
<tr>
<td>ASCVD</td>
<td>Arteriosclerotic cardiovascular disease</td>
</tr>
<tr>
<td>ASHD</td>
<td>Arteriosclerotic heart disease</td>
</tr>
<tr>
<td>BE</td>
<td>Below the elbow, Barium enema</td>
</tr>
<tr>
<td>BK</td>
<td>Below the knee</td>
</tr>
<tr>
<td>C1-C8</td>
<td>Cervical spinal nerve pairs</td>
</tr>
<tr>
<td>CABG</td>
<td>Coronary artery bypass graft</td>
</tr>
<tr>
<td>CAD</td>
<td>Coronary artery disease</td>
</tr>
<tr>
<td>CNS</td>
<td>Central nervous system</td>
</tr>
<tr>
<td>CRNA</td>
<td>Certified registered nurse anesthetist</td>
</tr>
<tr>
<td>C-Section</td>
<td>Cesarean section</td>
</tr>
</tbody>
</table>
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<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMG</td>
<td>Electromyogram</td>
</tr>
<tr>
<td>HA</td>
<td>Hearing aid, Headache</td>
</tr>
<tr>
<td>HDL</td>
<td>High-density lipoproteins</td>
</tr>
<tr>
<td>IV</td>
<td>Intravenous</td>
</tr>
<tr>
<td>L1-L5</td>
<td>Lumbar spinal nerve pairs</td>
</tr>
<tr>
<td>LDL</td>
<td>Low-density lipoproteins</td>
</tr>
<tr>
<td>MD</td>
<td>Muscular dystrophy, Medical doctor</td>
</tr>
<tr>
<td>MFT</td>
<td>Muscle function test</td>
</tr>
<tr>
<td>MI</td>
<td>Myocardial infarction</td>
</tr>
<tr>
<td>MS</td>
<td>Multiple Sclerosis</td>
</tr>
<tr>
<td>NVS</td>
<td>Neurologic vital signs</td>
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</tbody>
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<table>
<thead>
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<tbody>
<tr>
<td>OCD</td>
<td>Obsessive-compulsive disorder</td>
</tr>
<tr>
<td>PND</td>
<td>Paroxysmal Nocturnal Dyspnea, postnasal drip</td>
</tr>
<tr>
<td>PNS</td>
<td>Peripheral nervous system</td>
</tr>
<tr>
<td>PT, Protome</td>
<td>Prothrombin time</td>
</tr>
<tr>
<td>PT</td>
<td>Physical therapy (therapist)</td>
</tr>
<tr>
<td>RPh</td>
<td>Registered pharmacist</td>
</tr>
<tr>
<td>ROM</td>
<td>Range of motion</td>
</tr>
<tr>
<td>S1-S5</td>
<td>Sacral spinal nerve pairs</td>
</tr>
<tr>
<td>SOB</td>
<td>Short of breath</td>
</tr>
<tr>
<td>T1-T12</td>
<td>Thoracic spinal nerve pairs</td>
</tr>
<tr>
<td>TENS</td>
<td>Transcutaneous electric nerve stimulation</td>
</tr>
</tbody>
</table>