Nervous System

Chapter Fifteen
Medical Terminology
HIT # 141

Anatomy

- **Brain** = major portion of the Central Nervous System.
- **Cerebrum** = largest portion of the brain, left and right hemispheres, controls muscles, interprets general senses, sight & hearing, intellect, memory and emotional reactions.
- **Ventricles** = spaces filled with cerebrospinal fluid.
- **Cerebellum** = assist in the coordination of skeletal muscles & maintain balance.
- **Brainstem** = connects brain with spine.
Anatomy

- **Pons** = connects the cerebrum with the cerebellum and brainstem.
- **Medulla oblongata** = contains centers that control respiration, heart rate and the muscles in the blood vessel walls.
- **Spinal cord** = passes through the vertebral canal, conducts nerve impulses, initiates reflex action to sensory information without input from the brain.
- **Meninge** = three layers of membrane that cover the brain and spinal cord.

Anatomy

- **Dura mater** = tough outer layer of the meninges.
- **Arachnoid** = delicate middle layer of the meninges.
- **Pia mater** = thin inner layer of the meninges.
Organs

- **Nerve** = cord like structure that carries impulses from one part of the body to another. 12 cranial nerves, 31 pair of spinal nerves.
- **Ganglion** = group of nerve cells located outside the central nervous system.

Combining Forms

- **Cerebell/o** = cerebellum
- **cerebr/o** = cerebrum, brain.
- **Dur/o** = hard, dura matter.
- **Encephal/o** = brain.
- **Gangli/o ganglion/o** = ganglion.
- **Mening/i mening/o** = meninges.
- **Myel/o** = spinal cord also bone marrow.
- **Neur/o** = nerve.
- **Radic/o radicul/o rhiz/o** = nerve root
Combining Forms

- **Esthesi/o** = sensation sensitivity feeling.
- **Mon/o** = one.
- **Phas/o** = speech.
- **Poli/o** = gray matter.
- **Psych/o, ment/o phren/o** = mind.
- **Quadr/i** = four.

Prefixes & Suffixes

- **Hemi-** = half.
- **Pre-** = before.
- **Tetra-** = four.
- **-iatry** = treatment, specialty.
- **-iatrist** = specialist, physician.
- **-ictal** = seizure, attack.
- **-paresis** = slight paralysis.
Disease and Disorder Terms

• Cerebellitis = inflammation of the cerebellum.
• Cerebral thrombosis = clot in the cerebrum.
• Duritis = inflammation of the dura mater.
• Encephalitis = inflammation of the brain.
• Encephalomalacia = softening of the brain.
• Ganglitis = inflammation of the ganglion.
• Meningitis = inflammation of the meninges.
• Neuralgia = pain in a nerve.
• Neuroarthropathy = disease of nerves & joints.

Disease and Disorder Terms

• Neuritis = inflammation of the nerve.
• Neuroblast = developing nerve cell.
• Neuroma = tumor made up of nerve cells.
• Poliomyelitis = inflammation of the gray matter of the spinal cord.
• Radiculitis = inflammation of the nerve roots.
• Subdural hematoma = blood tumor pertaining to below the dura mater.
• Alzheimer’s disease = early senility confusion loss of recognition of person or familiar surroundings and restlessness.
Disease and Disorder Terms
• **Amyotrophic lateral sclerosis** = progressive muscle atrophy caused by hardening of nerve tissue on the spinal cord. *Lou Gehrig Disease*.
• **Bell’s palsy** = paralysis of muscles on one side of the face, usually temporary.
• **Cerebral palsy** = lack of muscle control and partial paralysis caused by a brain defect of lesion present at birth.
• **Cerebrovascular accident** = interruption of blood supply to the brain caused by cerebral thrombosis, embolism, or hemorrhage.

Disease and Disorder Terms
• **Epilepsy** = recurring seizures.
• **Multiple sclerosis** = degenerative disease, sclerotic patches along the brain & spine cord.
• **Neurosis** = emotional disorder ineffective way of coping with anxiety or inner conflict.
• **Parkinson’s Disease** = chronic degenerative disease of the central nervous system. Symptoms include muscular tremors, rigidity, expressionless face, and shuffling gait.
• **Psychosis** = mental disorder, extreme derangement often with delusions and hallucinations.
Disease and Disorder Terms

- **Sciatica** = inflammation of the sciatic nerve, causing pain from the thigh to the foot and toes.
- **Shingles** = viral disease, affects the peripheral nerves and causes blisters on the skin.
- **Transient ischemic attack** = sudden deficient supply of blood to the brain lasting a short time TIA warning sign to a Stroke.

Surgical Terms

- **Ganglionectomy** = excision of a ganglion.
- **Neurectomy** = excision of a nerve.
- **Neurolysis** = separating a nerve from adhesions.
- **Neuroplasty** = surgical repair of a nerve.
- **Neurotomy** = incision into a nerve.
- **Cerebral angiography** = x-ray filming of the blood vessels in the brain.
- **Myelogram** = x-ray film of the spinal cord.
- **Echoencephalography** = process of recording the brain by use of sound.
**Procedural Terms**

- **Electroencephalogram** = EEG record of the electrical impulses of the brain.
- **Electroencephalograph** = instrument used to record the electrical impulses of the brain.
- **Electroencephalography** = process of recording the electrical impulses of the brain.
- **Lumbar puncture** = insertion of a needle into the subarachnoid space for diagnostic purposes or removal of cerebrospinal fluid.

**Complementary Terms**

- **Anesthesia** = without loss of feeling or sensation.
- **Aphasia** = without speaking loss of or ability.
- **Cephalalgia** = pain in the head, headache.
- **Dysphasia** = difficulty speaking.
- **Encephalosclerosis** = hardening of the brain.
- **Hemiparesis** = paralysis of half of the body.
- **Hyperesthesia** = excessive sensitivity.
- **Monoparesis** = slight paralysis of one limb.
- **Monoplegia** = paralysis of one limb.
- **Neurologist** = physician who specializes in neurology.
Complementary Terms

- **Neurology** = branch of medicine dealing with the nervous system’s function and disorders.
- **Phrenopathy** = disease of the mind.
- **Psychiatry** = branch of medicine that deals with the treatment of mental disorders.
- **Psychologist** = specialist in the study of psychology.
- **Psychiatrist** = physician who treats mental disorders.
- **Psychopathy** = any disease of the mind.

Complementary Terms

- **Psychosomatic** = pertaining to the mind and body interrelations of.
- **Quadriplegia** = paralysis of four limbs.
- **Subdural** = pertaining to below the dura mater.
- **Tetraplegia** = paralysis of four limbs.
- **Ataxia** = lack of muscle coordination.
- **Cognitive** = pertaining to the mental process of comprehension, judgment, memory and reason.
Complementary Terms

- **Coma** = state of profound unconsciousness.
- **Conscious** = awake, alert, aware of one’s surroundings.
- **Convulsion** = sudden involuntary contraction of a group of muscles.
- **Dementia** = mental decline.
- **Disorientation** = state of mental confusion as to time, place, or identity.
- **Gait** = manner or style of walking.

Complementary Terms

- **Incoherent** = unable to express one’s thoughts or ideas in an orderly, intelligible manner.
- **Paraplegia** = paralysis from the waist down caused by damage to the spinal cord.
- **Seizure** = sudden attack with involuntary series of contraction.
- **Shunt** = tube implanted in the body to redirect the flow of fluid.
- **Syncope** = fainting of sudden loss of consciousness, caused by lack of blood supply.
- **Unconsciousness** = state of being unaware and incapable of responding to stimuli.
Abbreviations

- **AD** = Alzheimer's disease.
- **AER** = auditory evoked response.
- **ALS** = amyotrophic lateral sclerosis.
- **CNS** = central nervous system.
- **CSF** = cerebrospinal fluid.
- **CP** = cerebral palsy.
- **CVA** = cerebrovascular accident.
- **EEG** = electroencephalogram.
- **LP** = lumbar puncture.
- **MRI** = magnetic resonance imaging.

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Abbreviations

- **MS** = multiple sclerosis.
- **PNS** = peripheral nervous system.
- **TIA** = transient ischemic attack.
- **VER** = visual evoked response.
End of Chapter # 15