

PATHOLOGIES

<u>Cephalalgia</u> - aka cephalodynia Layman's term =	<u>Encephalocele</u> - (craniocoele) definition =
<u>Migraine Headache</u> –	<u>Meningitis</u> -
<u>Hydrocephalus</u> -	<u>Meningocele</u> -

Disorders of the Brain

- **Alzheimer's disease** - group of disorders associated with degenerative changes in the brain structure that lead to characteristic symptoms including progressive memory loss, impaired cognition, and personality changes
- **Cognition** -
- **Encephalitis** -
- **Parkinson's disease (PD)** - chronic, slowly progressive, degenerative **CNS** disorder
 - Characterized by:
- **Tetanus** - (**lockjaw**) - an acute and potentially fatal bacterial infection of the CNS, can be prevented through immunization

Brain Injuries

<u>Amnesia</u> –	<u>Cerebral contusion</u> -
<u>Concussion</u> - (cerebral concussion)	<u>Cerebral hematoma</u> - Epidural hematoma subdural hematoma intracerebral hematoma

Levels of Consciousness

- **Conscious** - (alert) -
- **Syncope** - (fainting) -
- **Lethargy** - lowered level of consciousness marked by listlessness, drowsiness, and apathy
- **Stupor** - state of impaired consciousness marked by a lack of responsiveness to environmental stimuli
- **Coma** -
- **Delirium and Dementia** -
 - **Delirium:** potentially reversible condition often associated with high fever that comes on suddenly.
 - A _____ patient is confused, disoriented, and unable to think clearly
 - **Dementia:**

Brain Tumors

Abnormal growth within the brain <ul style="list-style-type: none"> ○ Can cause damage in two ways: <ul style="list-style-type: none"> ■ ■ 	Benign: Malignant:
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The Nervous System

Stroke - (cerebrovascular accident - CVA) damage to the brain that occurs when the blood flow to the brain is disrupted because a blood vessel supplying it either is blocked or has ruptured

<u>Ischemic attacks:</u> <ul style="list-style-type: none">○ Transient Ischemic Attack (TIA) - temporary interruption in the blood supply to the brain Symptoms: <ul style="list-style-type: none">○ Ischemic Strokes - flow of blood in the brain is blocked Cerebral thrombosis: <ul style="list-style-type: none">○ Aphasia -	<u>Hemorrhagic stroke:</u> (bleed)
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Sleep Disorders

Insomnia:	Narcolepsy:
Somnambulism: (noctambulism) Layman's term: Walking without waking	Somnolence: Condition of unnatural sleepiness or semiconscious approaching coma, usually can be aroused by verbal stimuli

The Spinal Cord

Myelitis -	Myelosis - tumor of the spinal cord
Multiple Sclerosis - <ul style="list-style-type: none">○ Demyelination: disrupts the transmission of nerve impulses	Poliomyelitis - (Polio)
Postpolio syndrome - recurrence later in life of some polio symptoms in individuals who have had poliomyelitis and have recovered from it	Spinal Cord Injuries - (SCIs)
Radiculitis – layman's term:	

Nerves

<u>Amyotrophic lateral sclerosis</u> – (ALS/_____) Degenerative disease of the motor neurons in which patients become progressively weaker until complete paralysis	<u>Bell's palsy</u> -
<u>Guillain-Barre syndrome</u> – (GBS/acute ascending polyneuritis) Rapidly worsening muscle weakness that may lead to temporary paralysis	<u>Peripheral Neuropathy</u> - (peripheral neuritis)
<u>Tic douloureux</u> - (trigeminal neuralgia) ◦ Sudden, intense, sharp pain on one side of the face	<u>Sciatica</u> -

Abnormal Sensation

- **Causalgia** -
- **Hyperesthesia** -
- **Paresthesia** -

Cerebral Palsy - (CP)	<ul style="list-style-type: none"> • caused by an injury to the part of the brain that controls muscle movement • injury occurs during pregnancy, birth or soon after birth
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Convulsions and Seizures

- **generalized seizure (generalized tonic-clonic seizure)**: characterized by loss of consciousness with tonic convulsions followed by clonic convulsions
- **Tonic convulsions**: state of continuous muscular contraction that results in rigidity and violent spasms
- **Clonic convulsion**: marked by the alternate contraction and relaxation of muscles, resulting in jerking movements of the face, trunk, or extremities

The Nervous System

- **Partial seizure/localized seizure:** specific motor, sensory, or psychomotor phenomena without loss of consciousness

Epilepsy -

- **Grand mal epilepsy:** more severe form; characterized by generalized tonic-clonic seizures
- **Petit mal epilepsy:** (absence epilepsy) sudden, temporary loss of consciousness, lasting only a few seconds.
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- **Epileptic Aura:** manifestation, such as a particular smell or light, which may be experienced just before a seizure

Mental Health

Developmental Disorders -

- **Mental Retardation:** significantly below average general intellectual functioning that is accompanied by a significant limitation in adaptive functioning
- **Autistic disorder (autism):** disorder in which a young child cannot develop normal social relationships
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- **Attention deficit disorder (ADD):**
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- **Attention deficit/hyperactivity disorder (ADHD):** pattern of inattention and hyperactivity that is inappropriate for the child's development age
- **Dyslexia (reading disorder):** learning disability characterized by reading achievement that falls substantially below that expected given the individual's chronological age, measured intelligence, and age-appropriate education

Substance-Related Disorders -

- **Addiction:** compulsive and overwhelming involvement with a specific activity despite the fact that it causes significant health hazards plus recurrent legal and social problems

The Nervous System

- **Alcoholism**
- **Delirium Tremens (DTS)** - form of acute organic brain syndrome due to alcohol withdrawal

Characterized by:

Schizophrenia and Other Psychotic Disorders

- **Psychotic disorders:**
- **Schizophrenia:** delusions, hallucinations, disorganized speech that is often incoherent and disruptive or catatonic behavior\
- **Delusion:** false personal belief that is maintained despite obvious proof or evidence to the contrary
- **Hallucination:**
- **Catatonic behavior:**

Mood Disorders

- **Manic episode:** distinct period during which there is an abnormally and persistently elevated, expansive and irritable mood
- **Major depressive episode:**
- **Bipolar disorder (manic depressive episode):** clinical course characterized by the occurrence of manic alternating with depressive episodes

Panic Disorders -

- Characterized by the sudden, unanticipated recurrence of a group of symptoms known as a panic attack
- **Panic attack:** intense feelings of apprehension, fearfulness, terror, and impending doom
 - Physical symptoms:

Anxiety Disorders

- **Anxiety state:** apprehension, tension, or uneasiness that stems from the anticipation of danger
- **Obsessive-compulsive disorder:**

The Nervous System

- **Posttraumatic stress disorder (PTSD):** development of characteristic symptoms after a psychologically traumatic event
 - Symptoms:

Phobias - persistent, irrational fear of a specific thing or situation

- **Acrophobia:**
- **Agoraphobia:** overwhelming and irrational fear of leaving the familiar setting of home or venturing into the open
- **Claustrophobia:**

Somatoform Disorders - term used to describe the presence of physical symptoms that suggest general medical conditions not explained by the patient's actual medical condition

- **Conversion Disorder:** physical disorder but has no physical cause
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- **Hypochondriasis:** preoccupation with fears of having or the idea that one does have a serious disease based on the misinterpretation of one or more bodily signs or symptoms

Impulse-Control Disorder

- **Kleptomania:** recurrent failure to resist impulses to steal objects not for immediate use or their monetary value
- **Pyromania:**

Personality Disorders -

- **Antisocial Personality Disorder:** pattern of disregard for and violation of the rights of others;
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- **Narcissistic Personality Disorder:** pattern of exaggerated need for admiration and complete lack of empathy
 - **Empathy -**

Other Conditions

- **Malingering**: characterized by the intentional creation of false or grossly exaggerated physical or psychological symptoms
- **Munchausen Syndrome**: “patient” repeatedly makes clinically convincing simulations of disease for the purpose of gaining medical attention
- **Munchausen Syndrome by Proxy**: form of child abuse;

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Diagnostic Procedures

- **CT Scan/MRI** -
- **Echoencephalography** - ultrasound imaging to diagnose a shift in the midline structures of the brain
- **Electroencephalography** - recording the electrical activity of the brain through the use of electrodes attached to the scalp (**electroencephalogram**)
- **Encephalography** - radiographic study demonstrating the intracranial fluid containing space of the brain
- **Myelography** - radiographic study of the spinal cord after the injection of a contrast medium
- **Level of Consciousness (LOC)** -

Treatment Procedures

Medications to Treat Mental Disorders

- **Tranquilizers (anxiety drugs)**:
- **Antidepressant**:
- **Antipsychotic**:
- **Psychotropic drugs**:

Pain Control

- **Transcutaneous Electronic Nerve Stimulation (TENS)**: pain control by the application of electronic impulses to the nerve endings through the skin
- **Analgesic**:

- **Nonnarcotic Analgesic:** used for mild to moderate pain
- **Narcotic Analgesic:**

Sedative and Hypnotic Medications –

- **Sedative:** depresses the **CNS** to produce calm and diminish responsiveness without producing sleep

Sedation -

- **Hypnotic:** depresses the **CNS** and usually produces sleep
- **Barbiturate:** class of drugs whose major action is calming or depressed effect of the **CNS**

Amobarbital:

Phenobarbital:

Anticonvulsant:

Anesthesia - the absence of normal sensation, especially sensitivity to pain

- **Anesthetic:**
- **Topical Anesthetic:** numbs only the tissue surface and is applied as a liquid, ointment, or spray
- **Local Anesthetic:**
- **Regional Anesthetic:** temporary interruption of nerve conduction;
- **Epidural Anesthesia:** regional anesthesia produced by injecting a local anesthetic into the epidural space of the lumbar or sacral region of the spine
- **Spinal Anesthesia:**
- **General Anesthesia:** total loss of body sensation and consciousness as induced by various anesthetic agents, given primarily by inhalation or IV

Brain and Head

- **Electroshock Therapy (electroconvulsive therapy ECT):** controlled convulsion produced by the passage of an electric current through the brain
- **Lobectomy:** surgical removal of a portion of the brain to treat brain cancer or seizure disorders that cannot be controlled by medication
- **Thalamotomy:** surgical incision into the thalamus;

Nerves

- **Neurectomy:**
- **Neurorrhaphy:**
- **Neuroplasty:**
- **Neurotomy:**

Career Opportunities

Anesthesiologist Anesthetist Neurologist Neurosurgeon Psychiatrist Psychologist	Electroencephalographic (EEG) Tech Electroneurodiagnostic Tech Polysomnographic Tech Social Worker Social Services Assistant	Psychiatric or Mental Health Tech, Assistant or Aide Art, Music, or Dance Therapist Recreational Therapist
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