

Glossary of Terms

Abnormal – Not average, typical or usual: not normal.

Acquired Brain Injury – The implication of this term is that the individual experienced normal growth and development from conception through birth, until sustaining an insult to the brain at some later time which resulted in impairment of brain function.

Acute Rehabilitation – Based in a medical facility; accepts patients as soon as medically stable; focuses on intensive physical and cognitive restorative services in early months after injury.

Adaptive - Developing an individual's strengths and conditioning the ability to overcome a disabling condition.

Adaptive Equipment – A special device which assists in the performance of self-care, work or play/leisure activities or physical exercise.

ADL – Activities of daily living. Routine activities carried out for personal hygiene and health (including bathing, dressing, feeding) and for operating a household.

Advocacy Organization – A group or nonprofit entity which provides resource information, support services and/or educational opportunities for individuals or families in need, and makes those needs known to professional care-givers as well as to the general public.

Affect – The observable emotional condition of an individual at any given time.

Agnosia – Failure to recognize familiar objects although the sensory mechanism is intact. May occur for any sensory modality.

Agraphia – Inability to express thought in writing.

Alexia – Inability to read.

Ambulate – To walk.

Amnesia – Lack of memory about events occurring during a particular period of time.

Aneurysm – A balloon-like deformity in the wall of a blood vessel. The wall weakens as the balloon grows larger, and may eventually burst, causing a hemorrhage.

Anoxia – A lack of oxygen. Cells of the brain need oxygen to stay alive. When blood flow to the brain is reduced or when oxygen in the blood is too low, brain cells are damaged.

Apathy – A lack of interest or concern.

Aphasia – Loss of the ability to express oneself and/or to understand language. Caused by damage to brain cells rather than deficits in speech or hearing organs.

Aphasia, Expressive – Inability to find or formulate the words to express oneself even though knowing what one wants to say.

Aphasia, Receptive – Problems in understanding what others attempt to communicate.

Apraxia – Inability to carry out a complex or skilled movement; not due to paralysis, sensory changes, or deficiencies in understanding.

Arousal – Being awake. Primitive state of alertness managed by the reticular activating system (extending from the medulla to the thalamus in the core of the brain stem) activating the cortex. Cognition is not possible without some degree of arousal.

Aspiration – When fluid or food enters the lungs through the wind pipe. Can cause a lung infection or pneumonia.

Ataxia – A problem of muscle coordination not due to apraxia weakness, rigidity, spasticity or sensory loss. Caused by lesion of the cerebellum or basal ganglia. Can interfere with a person's ability to walk, talk, eat, and to perform other self-care tasks.

Atrophy – A wasting away or decrease in size of a cell, tissue, organ, or part of the body caused by lack of nourishment, inactivity or loss of nerve supply.

Attention – The ability to focus on a given task or set of stimuli for an appropriate period of time.

Attention Span – The length of time one is able to concentrate on a task at hand.

Automatic Speech – Words said without much thinking on the part of the speaker. These may include songs, numbers, and social communication; or, can be items previously learned through memorization. Spontaneous swearing by individuals who did not do so before their injury is another example.

Awareness – Consciousness of stimulation, arising from within or from outside the person.

Awareness, Deficit – The patient's inability to recognize the problems caused by impaired brain function.

Balance – The ability to use appropriate righting and equilibrium reactions to maintain an upright position.

Behavior – The total collection of actions and reactions exhibited by a person.

Bilateral – Pertaining to both right and left sides.

Brain Injury – Damage to the brain that results in impairments in one or more functions, including: arousal, attention, language, memory, reasoning, abstract thinking, judgment, problem-solving, sensory abilities, perceptual abilities, motor abilities, psychosocial behavior, information processing and speech. The damage may be caused by external physical force, insufficient blood supply, toxic substances, malignancy, disease-producing organisms, congenital disorders, birth trauma or degenerative processes.

Brain Injury, Acquired – The implication of this term is that the individual experienced normal growth and development from conception to birth, until sustaining an insult to the brain at some later time which resulted in impairment of brain function.

Brain Injury, Closed – Occurs when the head accelerates and then rapidly decelerates or collides with another object (for example the windshield of a car) and brain tissue is damaged, not by the presence of a foreign object within the brain, but by violent smashing, stretching and twisting of brain tissue. Closed brain injuries typically cause diffuse tissue damage that result in disabilities which are generalized and highly variable.

Brain Injury, Traumatic – Damage to living brain tissue caused by an external mechanical force. It is usually characterized by a period of altered consciousness (amnesia or coma) condition(s) may be orthopedic, visual, aural, neurologic, perceptive/cognitive, or mental/emotional in nature. The term does not include brain injuries that are caused by insufficient blood supply, toxic substances, malignancy, disease-producing organisms, congenital disorders, birth trauma or degenerative processes.

Cognition – The conscious process of knowing or being aware of thoughts or perceptions, including understanding and reasoning.

Cognitive Impairment – Difficulty with one or more of the basic functions of the brain: perception, memory, attentional abilities, and reasoning skills.

Cognitive Rehabilitation – Therapy programs which aid persons in the management of specific problems in perception, memory thinking and problem solving. Skills are practiced and strategies are taught to help improve function and/or compensate for remaining deficits. The interventions are based on an assessment and understanding of the person's brain-behavior deficits and services are provided by qualified practitioners.

Coma – A state of unconsciousness from which the patient cannot be awakened or aroused, even by powerful stimulation; lack of any response to one's environment. Defined clinically as an inability to follow a one-step command consistently; Glasgow Coma Scale score of 8 or less.

Comprehension – Understanding of spoken, written, or gestural communication.

Concentration – Maintaining attention on a task over a period of time; remaining attentive and not easily diverted.

Concrete Thinking – A style of thinking in which the individual sees each situation as unique and is unable to generalize from the similarities between situations. Language and perceptions are interpreted literally so that a proverb such as “a stitch in time saves nine” cannot be readily grasped.

Concussion – The common result of a blow to the head or sudden deceleration usually causing an altered mental state, either temporary or prolonged. Physiologic and/or anatomic disruption of connections between some nerve cells in the brain may occur. Often used by the public to refer to a brief loss of consciousness.

Confabulation – Verbalizations about people, places, and events with no basis in reality. May be a detailed account delivered.

Confusion – A state in which a person is bewildered, perplexed or unable to self-orient.

Continent – The ability to control urination and bowel movements.

Contracture – Loss of range of motion in a joint due to abnormal shortening of soft tissues.

Contralateral – Opposite side.

Contrecoup – Bruising of brain tissue on the side opposite where the blow was struck.

Contusion – Bruise.

Convergence – Movement of two eyeballs inward to focus on an object moved closer. The nearer the object, the greater is the degree of convergence necessary to maintain single vision.

Coup Damage – Damage to the brain at the point of impact.

CT Scan/Computerized Axial Tomography – A series of X-rays taken at different levels of the brain that allows the direct visualization of the skull and intracranial structures. A scan is often taken soon after the injury to help decide if surgery is needed. The scan may be repeated later to see how the brain is recovering.

Cue – A signal or direction used to assist a person in performing an activity (telling a person the initial of your first name serves as a cue when he or she cannot remember your name.)

Decubitus – Pressure area, bed sore, skin opening, skin breakdown. A discolored or open area of skin damage caused by pressure. Common areas most prone to breakdown are buttocks or backside, hips, shoulder blades, heels, ankles and elbows.

Deep Vein Thrombosis (DVT) – A blood clot in a vein, located deep from the skin, most commonly seen in the calf or thigh.

Diffuse Axonal Injury (DAI) – A shearing injury of large nerve fibers (axons covered with myelin) in many areas of the brain. It appears to be one of the two primary lesions of brain injury, the other being stretching or shearing of blood vessels from the same forces, producing hemorrhage.

Diffuse Brain Injury – Injury to cells in many areas of the brain rather than in one specific location.

Disability – Inability or limitation in performing tasks, activities and roles in the manner or within the range considered normal education. It may refer to a physical, mental, or sensory condition.

Disinhibition – Inability to suppress (inhibit) impulsive behavior and emotions.

Disorientation – Not knowing where you are, who you are, or the current date. Health professionals often speak of a normal person as being oriented “times three” which refers to person, place and time.

Dysarthria – Difficulty in forming words or speaking them because of weakness of muscles used in speaking or because of disruption in the neuromotor stimulus patterns required for accuracy and velocity of speech.

Dysphagia – A swallowing disorder characterized by difficulty in oral preparation for the swallow, or in moving material from the mouth to the stomach. This also includes problems in positioning food in the mouth.

Edema – Collection of fluid in the tissue causing swelling.

Electroencephalogram (EEG) – A procedure that used electrodes on the scalp to record electrical activity of the brain. Used for detection of epilepsy, coma, and brain death.

Embolism – The sudden blocking of an artery or a vein by a blood clot, bubble of air, deposit of oil or fat, or small mass of cells deposited by the blood flow.

Emotional Lability – Exhibiting rapid and drastic changes in emotional state (laughing, crying, and anger) inappropriately without apparent reason.

Endotracheal Tube – A tube that serves as an artificial airway and is inserted through the patient’s mouth or nose. It passes through the throat and into the air passages to help breathing. To do this it must also pass through the patient’s vocal cords. The patient will be unable to speak as long as the endotracheal tube is in place. It is this tube that connects the respirator to the patient.

Equilibrium – Normal balance reactions and postures.

Executive Functions – Planning, prioritizing, sequencing, self-monitoring, self-correcting, inhibiting, initiating, controlling or altering behavior.

Figure-Ground – The differentiation between the foreground and the background of a scene; this refers to all sensory systems, including vision, hearing, and touch.

Flaccid – Lacking normal muscle tone; limp.

Flexion – Bending a joint.

Foley Catheter – This is a tube inserted into the urinary bladder for drainage of urine. The urine drains through the tube and collects into a plastic bag.

Frontal Lobe – Front part of the brain; involved in planning, organizing, problem solving, selective attention, personality and a variety of “higher cognitive functions.”

Frustration Tolerance – The ability to persist in completing a task despite apparent difficulty. Individuals with a poor frustration tolerance will often refuse

to complete tasks which are the least bit difficult. Angry behavior, such as yelling or throwing things while attempting a task is also indicative of poor frustration tolerance.

Gait Training – Instruction in walking, with or without equipment; also called “ambulation training.”

GI Tube – A tube inserted through a surgical opening into the stomach. It is used to introduce liquids, foods, or medication into the stomach when the patient is unable to take these substances by mouth. Also referred to as a PEG Tube.

Glasgow Coma Scale – A standardized system used to assess the degree of brain impairment and to identify the seriousness of injury in relation to outcome. The system involves three determinants: eye opening, verbal responses and motor response all of which are evaluated independently according to a numerical value that indicates the level of consciousness and degree of dysfunction. Scores run from a high of 15 to a low of 3. Persons are considered to have experienced a “mild” brain injury when their score is 13 to 15. A score of 9 to 12 is considered to reflect a “moderate” brain injury and a score of 8 or less reflects a “severe” brain injury.

Head Injury – Refers to an injury of the head and/or brain, including lacerations and contusions of the head, scalp and/or forehead.

Hematoma – The collection of blood in tissues or space following rupture of a blood vessel. Regarding Brain:

Epidural – Outside the brain and its fibrous covering, the dura, but under the skull.

Subdural – Between the brain and its fibrous covering (dura).

Intracerebral – In the brain tissue.

Subarachnoid – Around the surfaces of the brain, between the dura and arachnoid membranes.

Hemianopsia Hemianopia – Visual field cut. Blindness of one half of the field of vision. This is not the right or left eye, but the right or left half of vision in each eye.

Hemiplegia – Paralysis of one side of the body as a result of injury to neurons carrying signals to muscles from the motor areas of the brain.

Hemiparesis – Weakness of one side of the body.

Hemorrhage – Bleeding that occurs following damage to blood vessels. Bleeding may occur within the brain when blood vessels in the brain are damaged.

Hydrocephalus – Enlargement of fluid-filled cavities in the brain, not due to brain atrophy.

Hypoxia – Insufficient oxygen reaching the tissues of the body.

Incontinent – Inability to control bowel and bladder functions. Many people who are incontinent can become continent with training.

Incoordination – A problem with coordination of movement of parts of the body, resulting from dysfunction of the nervous system rather than weakness of the muscles.

Initiative – Refers to the individual's ability to begin a series of behaviors directed toward a goal.

Intercerebral – Between the cerebral hemispheres.

Intracranial Pressure (ICP) – Cerebrospinal fluid (CSF) pressure measured from a needle or bolt introduced into the CSF space surrounding the brain. It reflects the pressure inside of the skull.

Judgment – Process of forming an opinion, based upon an evaluation of the situation at hand in comparison with personal values, preferences and insights regarding expected consequences. The ability to make appropriate decisions.

Leisure Skills – The ability to participate in recreational activities and to independently make effective use of one's leisure time and opportunities.

Long Term Memory – In neuropsychological testing, this refers to recall thirty minutes or longer after presentation. Requires storage and retrieval of information which exceeds the limit of short term memory.

Memory – The process of organizing and storing representations of events and recalling these representations to consciousness at a later time.

Memory, Short Term – Primary or “working” memory; its contents are in conscious awareness. A limited capacity system that hold up to seven chunks of information over periods of 30 seconds to several minutes, depending upon the person’s attention to task.

Mental Competence – The quality or state of being competent; having adequate mental abilities; legally qualified or adequate to manage one’s personal affairs. An individual found by a court to be mentally incompetent has a guardian appointed to make personal and/or economic decisions on their behalf.

Mobility – Ability of an individual to move with, and interact with the environment, usually involving utilization of public and/or private transportation, wheelchairs or ambulation.

Motivation – Requires initiative and refers to the extent to which an individual desires to reach a goal and demonstrates actual follow-through. A greater level of motivation is required for completion of difficult tasks. A brain-injured person with reduced motivation may need frequent cueing to finish dressing even though being able to verbalize the complete procedure.

Motor Control – Regulation of the timing and amount of contraction of muscles of the body to produce smooth and coordinated movement. The regulation is carried out by operation of the nervous system.

Motor Control, Fine – Delicate, intricate movements as in writing or playing a piano.

Motor Control, Gross – Large, strong movements as in chopping wood or walking.

Motor Planning – Action formulated in the mind before attempting to perform.

Muscle Tone – Used in clinical practice to describe the resistance of a muscle to being stretched. When the peripheral nerve to a muscle is severed, the muscle becomes flaccid (limp). When nerve fibers in the brain or spinal cord are damaged, the balance between facilitation and inhibition of muscle tone is disturbed. The tone of some muscles may become increased and they resist being stretched – a condition called hypertonicity or spasticity.

Music Therapy – Use of music and singing to develop language and movement skills.

Neglect – Paying little or no attention to a part of the body.

Neurologist – A physician who specializes in the nervous system and its disorders.

Neuropsychologist – A psychologist who specializes in evaluating (by tests) brain/behavior relationships, planning training programs to help the survivor of brain injury return to normal functioning and recommending alternative cognitive and behavioral strategies to minimize the effects of brain injury. Often works closely with schools and employers as well as with family members of the injured person.

Non-ambulatory – Not able to walk.

Nystagmus – Involuntary horizontal, vertical, or rotary movement of the eyeballs.

Occipital Lobe – Region in the back of the brain which processes visual information. Damage to this lobe can cause visual deficits.

Occupational Therapy – Occupational Therapy is the therapeutic use of self-care, work and play activities to increase independent function, enhance development and prevent disability; may include the adaptation of a task or the environment to achieve maximum independence and to enhance the quality of life. The term occupation, as used in occupational therapy, refers to any activity engaged in for evaluating, specifying and treating problems interfering with functional performance.

Orientation – Awareness of one's environment and/or situation, along with the ability to use this information appropriately in a functional setting.

Paraplegia – Paralysis of the legs (from the waist down).

Parietal Lobe – One of the two parietal lobes of the brain located behind the frontal lobe at the top of the brain.

Parietal Lobe, Right – Damage to this area can cause visuo-spatial deficits (e.g., the patient may have difficulty finding their way around new, or even familiar, places).

Parietal Lobe, Left – Damage to this area may disrupt a patient's ability to understand spoken and/or written language.

Perception – The ability to make sense of what one sees, hears, feels, tastes or smells. Perceptual losses are often very subtle, and the patient and/or family may be unaware of them.

Perseveration – The inappropriate persistence of a response in a current task which may have been appropriate for a former task. Perseverations may be verbal or motoric.

Physiatrist – A physician who specializes in physical medicine and rehabilitation. Some physiatrists are experts in neurologic rehabilitation, trained to diagnose and treat disabling conditions. The physiatrist examines the patient to assure that medical issues are addressed; provides appropriate medical information to the patient, family members and members of the treatment team. The physiatrist follows the patient closely throughout treatment and oversees the patient's rehabilitation program.

Physical Therapist – The physical therapist evaluates components of movement, including: muscle strength, muscle tone, posture, coordination, endurance, and general mobility. The physical therapist also evaluates the potential for functional movement, such as ability to move in bed, transfers and walking and then proceeds to establish an individualized treatment program to help the patient achieve functional independence.

Plateau – A temporary or permanent leveling off in the recovery process.

Posture – The attitude of the body. Posture is maintained by low-grade, continuous contraction of muscles which counteract the pull of gravity on body parts. Injury to the nervous system can impair the ability to maintain normal posture, for example holding up of the head.

Pre-Morbid Condition – Characteristics of an individual present before the disease or injury occurred.

Problem-Solving – Ability of the individual to bring cognitive processes to the consideration of how to accomplish a task.

Proprioception – The sensory awareness of the position of body parts with or without movement. Combination of kinesthesia and position sense.

Psychologist – A professional specializing in counseling, including adjustment to disability. Psychologist use tests to identify personality and cognitive functioning. This information is shared with team members to assure consistency in approaches. The psychologist may provide individual or group psychotherapy for the purpose of cognitive retraining, management of behavior and the development of coping skills by the patient and members of the family.

Range of Motion (ROM) – Refers to movement of a joint

Reasoning, Abstract – Mode of thinking in which the individual recognizes a phrase that has multiple meanings and selects the meaning most appropriate to a given situation. The term “abstract” typically refers to concepts not readily apparent from the physical attributes of an object or situation.

Reasoning, Concrete – The ability to understand the literal meaning of a phrase.

Recreation Therapist – Individual within the facility responsible for developing a program to assist persons with disabilities plan and manage their leisure activities; may also schedule specific activities and coordinate the program with existing community resources.

Rehabilitation – Comprehensive program to reduce/overcome deficits following injury or illness, and to assist the individual to attain the optimal level of mental and physical ability.

Rehabilitation Nurse – A nurse specializing in rehabilitation techniques as well as basic nursing care. Nurses assist the patient and family in acquiring new information, developing skills, achieving competence and exhibiting behaviors that contribute to the attainment of a healthy state.

Rehabilitation Objective – A goal of the comprehensive restoration of an individual to the best possible level of functioning following a physical, mental, or emotional disorder.

Rehabilitation Process – A planned, orderly sequence of services related to the total needs of the person with a disability and designed to assist one to realize maximum potential for useful and productive activity.

Rehabilitation Team – An organized group of health care specialists, who focus on providing a logical, practical and complete rehabilitation plan for the patient. Upon admission to the rehabilitation hospital, the patient is evaluated by each team member who defines both short-term and long-term goals for the patient's rehabilitation. Meetings of the rehabilitation team (sometimes called "team conference") are held regularly to discuss the patient's progress and, if necessary, to redefine the goals.

Seizure – An uncontrolled discharge of nerve cells which may spread to other cells nearby or throughout the entire brain. It usually lasts only a few minutes. It may be associated with loss of consciousness, loss of bowel and bladder control and tremors. May also cause aggression or other behavioral change.

Sensation – Feeling stimuli which activate sensory organs of the body, such as touch, temperature, pressure and pain.

Sensorimotor – Refers to all aspects of movement and sensation and the interaction of the two.

Sequencing – Reading, listening, expressing thoughts, describing events or contracting muscles in an orderly and meaningful manner.

Shunt – A procedure to draw off excessive fluid in the brain. A surgically-placed tube running from the ventricles which deposits fluid into either the abdominal cavity, heart or large veins of the neck.

Social Worker – The social worker serves as a liaison between the professional team and other parties concerned with the patient, including: the family, funding sources, friends, and representatives of past or future placements. An important role of the social worker is to help ensure that if home placement does not materialize, or if home placement is not indicated, the social worker provides assistance to the patient and family for finding other alternatives.

Spasm – An involuntary and abnormal muscular contraction; also, a sudden violent and temporary effort or emotion.

Spasticity – An involuntary increase in muscle tone (tension) that occurs following injury to the brain or spinal cord, causing the muscles to resist being moved. Characteristics may include increase in deep tendon reflexes, resistance to passive stretch, and clonus.

Speech and Hearing Therapist – The speech pathologist and audiologist identifies problem areas of visual (seeing) and auditory (hearing) comprehension, attention, memory (recent and past), language skills, writing skills and reading skills. The information gathered by the speech and hearing specialist is valuable to other team members; for example, whether or not to use reading as a means of communicating information to the patient. The speech therapist provides instruction and practice in improving skills in comprehension and communication.

Spontaneous Movement – A reaction resulting from a natural impulse without obvious planning or premeditation.

Spontaneous Recovery – The recovery which occurs as damage to body tissues heals. This type of recovery occurs with or without rehabilitation and it is very difficult to know how much improvement is spontaneous and how much is due to rehabilitative interventions. However, when the recovery is guided by an experienced rehabilitation team, complications can be anticipated and minimized;

the return of function can be channeled in useful directions and in progressive steps so that the eventual outcome is the best that is possible.

Stimulus – That which causes sensation (i.e., light for vision, salt for taste, sound for hearing, etc.). When a patient begins to emerge from a coma, an organized program of controlled stimulation is sometimes used to begin “exercising” the brain. However, when a patient becomes agitated, the amount and intensity of stimulation should be limited (e.g., only one task for one sense at a time).

Subdural – Beneath the dura (tough membrane) covering the brain and spinal cord.

Support Group – A group established for families and/or persons with disabilities to discuss the problems they may have in coping with their life situation and to seek solutions to these problems.

Tactile Defensiveness – Being overly sensitive to touch; withdrawing, crying, yelling or striking when one is touched.

TBI – Traumatic Brain Injury

Temporal Lobes – There are two temporal lobes, one on each side of the brain located at about the level of the ears. These lobes allow a person to tell one smell from another and one sound from another. They also help in sorting new information and are believed to be responsible for short-term memory.

Right Lobe – Mainly involved in visual memory (i.e., memory for pictures and faces).

Left Lobe – Mainly involved in verbal memory (i.e., memory for words and names).

Tracheostomy – A temporary surgical opening at the front of the throat providing access to the trachea or windpipe to assist in breathing.

Unilateral Neglect – Paying little or no attention to things on one side of the body. This usually occurs on the side opposite from the location of the injury to the brain because nerve fibers from the brain typically cross before innervating body

structures. In extreme cases, the patient may not bathe, dress or acknowledge one side of the body.

Vestibular – Pertaining to the vestibular system in the middle ear and the brain which senses movements of the head. Disorders of the vestibular system can lead to dizziness, poor regulation of postural muscle tone and inability to detect quick movements of the head.

Visual Field Defect – Inability to see objects located in a specific region of the field of view ordinarily received by each eye. Often the blind region includes everything in the right half or left half of the visual field.

Visual Perception – The ability to recognize and discriminate between visual stimuli and to interpret these stimuli through association with earlier experiences. For example, to separate a figure from a background, to synthesize the contents of a picture and to interpret the invariability of an object which is seen from different directions.

Visual Tracking – Visually following an object as it moves through space.