Vocabulary

* **Neuroanatomy**-the anatomy of the nervous system
* **Neuron-**a specialized cell transmitting nerve impulses
* **Dendrites**-a short branched extension of a nerve cell
* **Axon**-the long threadlike part of a nerve cell along which impulses are conducted from the cell body to other cells
* **Myelin sheath**- the insulating covering that surrounds an axon with multiple spiral layers myelin (increases the speed at which a nerve impulse can travel along an axon)
* **Terminal buttons**-tiny bulblike structures at the end of the dendrites, which contain neurotransmitters that carry the neuron’s message into the synapse
* **Neurotransmitters**-a chemical substance that is released at the end of a nerve fiber by arrival of a nerve impulse and causes the transfer of an impulse to another nerve fiber, a muscle fiber or some other structure
* **Synapse**-a junction between tow nerve cells consisting of a minute gap across the diffusion by a neurotransmitter
* **Receptor sites**-a molecular site or the docking port on the surface of, or within, a cell, usually involving proteins that are capable of recognizing and binding with specific molecules
* **Action potential**-the change in electrical potential associated with the passage of an impulse along the membrane of a muscle cell or nerve cell
* **Acetylcholine**-a compound that occurs throughout the nervous system in which it functions as a neurotransmitter
* **Dopamine**-a compound present in the body as a neurotransmitter
* **Endorphins**-any of a group of hormones secreted within the brain and nervous system and having a number of psychological functions
* **Serotonin**-a compound present in blood platelets and serum that constricts the blood vessels and acts as a neurotransmitter
* **GABA**-gamma-aminobutyric acid
* **Glutamate**-a salt or ester of glutamic acid
* **Norepinephrine**-a hormone that is released by the adrenal medulla and the sympathetic nerves and functions as a neurotransmitter
* **Midbrain**-a small central part of the brainstem, developing from the middle of the primitive or embryonic brain
* **Reticular formation**-a diffuse network of nerve pathways in the brainstem connecting to the spinal cord, cerebrum, cerebellum, and mediating the overall level of consciousness
* **Forebrain**-the anterior part of the brain including the cerebral hemispheres
* **Efferent neurons**-carry nerve impulses away from central nervous system to muscles
* **Central nervous system**-the complex of nerve tissues that controls the activities of the body
* **Spinal cord**-the cylindrical bundle of nerve fibers and associated tissues that is enclosed in the spine and connect nearly all parts of the body to the brain
* **Peripheral nervous system-**the nervous system outside the brain and spinal cord
* **Somatic nervous system**-part of the peripheral nervous system associated with skeletal muscle voluntary control of body movements
* **Autonomic nervous system**-regulates the body’s unconscious actions
* **Sympathetic nervous system**-one of two main divisions of the autonomic nervous system
* **Parasympathetic nervous system**-one of two main divisions of the autonomic nervous system
* **Lesions**-a region in the organ or tissue that has suffered damage through injury or disease
* **Electroencephalogram**-a test or record produced by a electroencephalography
* **Computerized axial tomography (CAT or CT scan)**-a form of tomography in which the computer controls the motion of the x-ray source and detectors, processes the data, and produces the image
* **Magnetic resonance Imaging (MRI scan)**-produces images of internal organs
* **Positron emission tomography (PET scan)**-
* **Functional MRI**-measures brain activity by detecting changes in blood flow
* **Hindbrain**-the lower part of the brainstem comprising the cerebellum, the pons, and the medulla oblongata
* **Medulla**-the inner region of an organ or tissue especially when it is distinguishable from the outer region or cortex
* **Cerebellum**-the part of the brain at the back of the skull in vertebrates
* **Thalamus**-either of two masses of gray matter lying between the cerebral hemispheres on either side of the third ventricle relaying sensory information and acting as a center for pain perception
* **Hypothalamus**-a region of the forebrain below the thalamus that coordinates both the automatic nervous system and the activity of the pituitary controlling body temperature, thirst, hunger, and other homeostatic systems, and involved in sleep and emotional activity
* **Amygdala**-a roughly almond-shaped mass of gray matter inside each cerebral hemisphere, involved with the experiencing of emotions
* **Hippocampus**-the elongated ridges on the floor of each lateral ventricle of the brain, thought to be the center of emotion, memory and the automatic nervous system
* **Limbic system**-a complex systems of nerves and networks in the brain, involving several areas near the edge of the cortex concerned with instinct and mood (controls basic emotions and drives)
* **Cerebral cortex**-the outer layer of the cerebrum composed of folded gray matter and playing an important role in consciousness
* **Hemisphere**-each of the two parts of tech cerebrum in the brain of a vertebrae
* **Corpus callosum**-a broad band of nerve fibers joining the two hemispheres of the brain
* **Lobes**-each of the parts of the cerebrum of the brain
* **Association area**-a region of the cortex of the brain that connects sensory and motor areas, and that is thought to be concerned with higher mental activities
* **Frontal lobes**-each of the pared lobes lying immediately behind the forehead, including areas concerned with behavior, learning, personality, and voluntary movement
* **Broca’s area**-a region of the brain concerned with the production of speech, located in the cortex of the dominant frontal lobe
* **Wernicke’s area**-a region of the brain concerned with comprehension of language, located in the cortex of the dominant temporal lobe
* **Motor cortex**-the part of the cerebral cortex in the brain where the nerve impulses originate that initiate voluntary muscular activity
* **Parietal lobes**-either of the paired lobes at the top of the head, including areas concerned with the reception and correlation of sensory information
* **Occipital lobes**-the rearmost lobe in each cerebral hemisphere of the brain
* **Temporal lobes**-each of the paired lobes of the brain lying beneath the temples including areas concerned with the understanding of speech
* **Brain plasticity**-changes in neural pathways and synapses due to changes in behavior, environment, neural processes, thinking, and emotion
* **Endocrine system**-collection of glands of an organism that secretes hormones directly into the circulatory system to be carried into towards distant target organs
* **Adrenal glands**-endocrine glands that produce a wide variety of hormones