

The Brain Trust Program has 40 ratings and 4 reviews. Dee Renee said: I read books like this because I think the information will help someone I know, an.

A good selection of books for the understanding of brain structure and function. Saturday, March 13, 6. A leading neurosurgeon reveals secrets for increasing brain function at any age. Brain, like the muscles, heart, and other organs, is made up of flesh and blood and requires proper care to maintain its optimum state of well-being. This is much more important because brain cells do not reproduce as opposed to other kind of cells. Because of which whatever we accumulated good or bad in our brain lasts longer. They stick with you a lifetime. This book reveals the secrets and gives a plan to enhance the brain power. Finally the book is very interesting to read with easy to follow guidelines for optimum brain health. There are exercises for the brain. There are recommended cocktail recipes to follow and eliminate the discomfort of Hot Flashes and Migraine Headaches. As such it is ten times metabolically active than the rest of the body. So what we eat is very very important. We first look into the structure of the brain, what its needs are, what happens when the needs are not met and how to provide them for optimal function. As far as we know, human brain is the last one in the evolution of neural mechanisms from single neural traits to billions of human neurons. The following are the anatomical layers of human brain. At the base of the brain, just where spinal cord enters the skull, is the brain stem which controls all our automatic survival functions, breathing, heart beat, swallowing etc. Sitting atop the brain stem, we have thalamus, hypothalamus and basal ganglia. These we can see in all rudimentary brains, reptiles, birds etc. Thalamus receives the sensory information, basal ganglia acts on that information and hypothalamus regulates the inside activity of the body, appetite, thirst, body temperature, hormonal activity etc. Sitting at the lower back of the brain is the cerebellum, which controls the balance of our body by controlling the muscles, as in writing, painting, playing the piano etc. For every creature survival is basic and new skills are needed for existence. New biological systems evolved for hunting for food, escaping from predators etc. Limbic system evolved, which controls emotional traits, such as fear, anxiety and anger as well as memory and spacial navigation. The latest addition to brain in the evolution is the neocortex which appears only in mammals and humans. This is an intricately folded sheet of brain cell neuron circuitry. It has plasticity associated with it to rearrange itself as need demands. The neocortex has four distinct regions, called lobes, that each performs a particular function. Occipital lobe located in the back of the brain, interprets signals coming from eyes. Frontal lobe located behind the forehead takes care of the planning and execution of our muscles. In the very front of the frontal lobe is the prefrontal cortex PFC. PFC is the one which creates mental images from the information it gets, and designs an execution method to get the things done. The prefrontal area is the most highly wired part of the brain. Temporal lobes are on either side of the brain, the right one controlling sound and the left one speech and language. Parietal lobes which are located on either side of the brain just above the temporal areas, deal with complex sensory messages coming from touch, feeling nice and smooth, rough etc. The main work horse in the brain is the neuron, they are billions in number, which receive, transmit, store and retrieve information. The other cellular structures in the brain are of supportive nature, the star shaped astrocytes provide physical and metabolic support to the neuron, Oligodendrocytes produce a type of fatty insulation called myelin which acts as an insulator in the nerve signal transmission. The neuron cell bodies and their surroundings make up what is called a gray matter and the connections coming out of neurons with its myelin insulation make up what is called white matter. The neuron receives input from dendrites and sends output through axon. We can imagine dendrites as fingers of the neuron and axon as the tail of neuron. The neuron receives information through its dendrites from chemical messengers called neurotransmitters, converts into electrical impulses and transmits them out through its axon. At the end of the axon these electrical impulses are converted to chemical neurotransmitters and reach dendrites of another neuron. The gap between dendrites of one neuron and axon of another neuron is called synapse. Thousands of these synapses formed between neurons. Present estimate is There is no physical contact in the synaptic connections. These connections are not fixed either, they are changed and rearranged throughout our life time as we learn new

things. This is what is called plasticity in the brain. As we experience new things, the brain builds a complex network of synaptic interconnections among brain cells. Each new thing we learn, experience, see, hear, feel, say, or do hooks up a new circuit. Repetition solidifies the circuits we build, but they weaken or disconnect entirely with disuse or neglect. In short our mental abilities follow the saying "use it or lose it". Groups are formed within these billions of neurons called clusters and the clusters form regions where each function of the brain is concentrated. For example vision is controlled by a cluster of brain cells at the back of the head. The central player in this complex activity, neuron, is simply an information relay station which uses chemical ions to do the job. The main chemical ions are positive Ca, Na, K and negative Chlorine Cl ions. These ions go back and forth through membranes in the cell and facilitate the initiation and transmission of neural signals. Let us say the ions are at a stable state and the dendrites receive a chemical transmitter; it triggers the movement of ions and the generation of neural signal, which is electrical in nature, handed to the axon for further transmission. After the signal generation, the ions have to come back to the stable state to process inputs from dendrites. If we consider each neuron might have 10,000 synapses and there are billion neurons, moving ions around for each signal is a huge energy consuming operation. The information pulse reaching the axon end emits what are called neurotransmitters, which are specific to the message it is carrying, and these neurotransmitters swim through the synaptic gap and reach the dendrites of another neuron. The neurotransmitter is a small chemical compound. The information carried by neurotransmitters is converted to electrical impulses by moving, charged ions Ca, Na, K, Cl in and out of the cell membrane. The electrical impulse generated because of the movement of charged ions is fed through the axon and goes to the next neuron. Following are some of the active neurotransmitters and their identified functions: Acetylcholine ACH, regulation of autonomic functions heart rate, blood pressure etc. Also involved in storage and retrieval of information. Dopamine DA involved in brain functions of smooth coordinated movements. Norepinephrine NE keeps tabs on our internal environment; regulates our body temperature, metabolic rate and appetite. Serotonin, is a feel-good transmitter, lack of it causes depression. Taurine, also an amino acid, regulates volume of signals in the case of trauma, loss of blood, over stimulation etc. When the baby was born it has very minimal skills for survival. The autonomous systems are going on but the skill level is nothing, billion or so neurons are not wired yet. It starts building synaptic connections consuming about two thirds of the energy created adult brain consumes only 20 percent of energy. Each new learning experience simulates a new hookup. Repetition solidifies the hookup with a myelin coating. Now we can see memory as a process of retaining learned experiences. We can broadly divide memory into two areas, procedural memory and declarative memory. Procedural memory consists of skills obtained by practicing a procedure repeatedly until it is etched in the brain and becomes automatic; riding a bike, typing etc. The synaptic connections are formed in basal ganglia, cerebellum and spinal cord. This is the reason why we retain the skill of typing or riding a bike at any time without going through the manual. Declarative memory involves with the storage of facts. This can be further divided into two areas semantic memory, which includes storage of learned facts and concepts, and episodic memory formed because of an emotional event taking place. Episodic memory is also called flashbulb memory almost instantly generates lasting interconnections between brain cells. The synaptic connections are formed within the hippocampus and neocortex. How this is all happening in brain? It is estimated that each neuron has synaptic connections to 10,000 other neurons. There about billion neurons. Scientists were able to conclude that there are four critical areas which should be optimized in the brain for smooth operation. First is the flow of calcium. Regulated calcium flow through cell membranes is needed for synaptic connections. Second is the balance of insulin and glucose blood sugar. Glucose is the main fuel source for the neuron and brain takes about grams per day from the blood. Insulin also needed for glucose absorption. In the case of Insulin resistance Diabetes, the glucose and insulin balance in the blood gets disturbed and glucose absorption decreases raising glucose levels in the blood. Third is the availability of adequate growth factors for regeneration and repair. Our ability to learn and remember depends upon the ability of the brain to connect neurons through synapses. Our Fluidity of thought depends upon uninterrupted, high speed communication among the interconnected brain cells. Fourth is the control of inflammation.

DOWNLOAD PDF THE BRAIN TRUST PROGRAM

Chapter 2 : Grant Programs - MINDSOURCE Brain Injury Network

The Brain Trust Program, by Dr. Larry McCleary, manages to provide a wealth of information on enhancing and maintaining brain function without being a boring biblically long mechanical medical treatise.

Chapter 3 : Brain trust - Wikipedia

Dr. Matt Birnholz speaks with guest Dr. Larry McCleary at the AMA Medical Communications Conference in San Diego. Dr. McCleary is the author of The Brain Trust Program, an evidence-based approach to developing and improving memory, enhancing attention span, and boosting mental energy. Dr.

Chapter 4 : Brain Trust | United States history | calendrierdelascience.com

The Brain Trust Program: A Scientifically Based Three-Part Plan to Improve Memory, Elevate Mood, Enhance Attention, Alleviate Migraine and Menopausal Symptoms, and Boost Mental by Larry McCleary A comprehensive and proven program to improving and maintaining brain function.

Chapter 5 : The Brains Trust (TV Series “”) - IMDb

The parts of the book I found most intriguing are in Part III: Novel Applications of the Brain Trust Program. One of the incredible interesting applications of the nutritional advice provided in this book is in the reduction of the symptoms of menopause.

Chapter 6 : The Brain Trust Program Medical Education on ReachMD

*The Brain Trust Program By Larry McCleary M.D. () Penguin Group (USA) Inc., Hudson Street, New York, NY , USA
ABSTRACT: Brain, like the muscles, heart, and other organs, is made up of flesh and blood and requires proper care to maintain its optimum state of well-being.*

Chapter 7 : The Brains Trust - Wikipedia

The Brain Trust Program: A Scientifically Based Three-Part Plan To Improve Memory, Elevate Mood, Enhance Attention, Alleviate Migraine And Menopausal Symptoms, And Boost Mental Energy Keywords The Brain Trust Program: A Scientifically Based Three-Part Plan to Improve Memory, Elevate Mood, Enhance Attention, Alleviate Migraine and Menopausal.

Chapter 8 : The Brain Trust CEO Peer Groups, Networking and Executive Coaching

Introduces a program for enhancing brain function that purports to prevent the effects of aging and improve brain function by using a combination of nutrition, supplements, mental and physical exercise, and stress-reduction techniques.

Chapter 9 : Books on Brain: The Brain Trust Program by Larry McCleary M.D.

Brain Trust, also called Brains Trust, in U.S. history, group of advisers to Franklin D. Roosevelt during his first campaign for the presidency (). The term was coined by journalist John F. Kieran and gained national currency at once.