Brain Gym's Energy Exercises

Energy Exercises help to re-establish neural connections between body and brain, thus facilitating the flow of electromagnetic energy throughout the body. These activities support electrical and chemical changes that occur during all mental and physical events.

Left-to- right/right-to-left, head-to-foot/foot-to-head, and back-to-front / front-to-back circuitries establish and support our sense of directionality, of sidedness, of centeredness, and of focus, as well as our awareness of where we are in space and in relation to objects in our environment.

The human body is one of the most complex of all electrical systems. All visual, auditory, or kinesthetic input (in fact, all sensory information) is changed into electrical signals and relayed to the brain along nerve fibers.

The brain then sends out electrical signals along other nerve fibers to tell the visual, auditory, and muscular systems how to respond. These currents travel at speeds of up to 248 miles per hour – faster than the fastest electric trains in use! In the same way that electrical circuits in a house can become overloaded, neurological and physiological signals can become jammed and switch off, blocking the normal flow of brain-body communication.

Both Western and Eastern medical authorities recognize the need to keep the electromagnetic circuits of the body (described as meridians in the Chinese system of acupuncture) flowing freely. During periods of increased stress, as adrenalin levels rise, a lowering of electrical potential across the nerve membrane occurs, preparing the body of fight or flee. In this state, the body reacts in order to survive, focusing electrical energy away from the neocortex and to the sympathetic nervous system.

Energy Exercises stimulate parasympathetic function and decrease the release of adrenalin. By increasing the electrical threshold across the nerve membrane, thought and action are again coordinated. Additionally, the semicircular canals of the inner ear are stimulated by electrical activity that occurs during movement.

These canals, in turn, activate the brainstem's reticular formation, which screens distracting from relevant information and creates wakefulness, facilitating focus and attention in the rational centers of the brain. When the semicircular canals have been damaged or if they are not adequately stimulated by movement, a person may have difficulty concentrating.

Energy Exercises provide a balanced stimulus to the semicircular canals, thus activating and focusing the higher brain centers for fine motor skills and new learning.

Brain Gym's Midline Movements:

Focus on two-sided (left-right) movement across the midline of the body. Development and/or properly functioning bilateral movement skills are important for crawling, walking, seeing depth, and are a prerequisite for whole-body coordination and ease of learning in the near-visual area. The Midline Movements help integrate binocular vision, binaural hearing, and the left and right sides of the brain. Over the last century, crawling has been used in neurological patterning to maximize learning potential.

Cross Crawl:

Cross Crawl accesses both brain hemispheres simultaneously, and stimulates receptive as well as expressive hemispheres of the brain, facilitating integration. Crossing the visual, auditory, kinesthetic, tactile midline.

Instructions:

In this contra- lateral exercise, similar to walking in place, the participant alternately moves one arm and its opposite leg and the other arm and its opposite leg (March in place for 50-200 repetitions)

Variations:

Cross Crawl as you sit, moving opposite arm and leg together. Activate kinesthetic sense (touch); alternately touch each hand to the opposite knee. To improve focus, do a slow-motion Cross Crawl. To improve balance, Cross Crawl with your eyes closed. To add more vitality - stretch, skip or bounce lightly between each Cross Crawl.

Activates the Brain for:

Left-to-right, right-to-left eye movements. Improves binocular (both eyes together) vision, concentration, whole brain thinking, and increases creativity and problem solving capacity.

Behavioral / Postural Correlates:

1. Improved left / right coordination
2. Enhanced breathing and stamina
3. Greater coordination and spatial awareness
4. Enhanced hearing and vision, and balance