



Hartwell Chiropractic & Wellness Center, P.C.

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BRAIN BASED THERAPY

Brain Based Therapy is a unique approach used to pinpoint and treat abnormal neurological function that may have been caused by past or current physical, chemical and emotional stress. Research has shown that the brain never stops changing. Brain development does not stop when a child reaches maturity, but continually re-organizes itself based on the information it receives (it's called neuroplasticity). This means that we can therapeutically activate and improve function to certain areas of the brain that may not be firing properly. Sensory information from specifically targeted muscles, joints, eyes, nose, and ear receptors for example, can cause this desired activation that allows the brain to start working properly again. Additionally, we address brain fuel requirements in the form of diet and nutritional supplementation and in-office oxygen therapy. These treatment methods are some of the most powerful natural techniques known to reverse fibromyalgia and other chronic pain related conditions. However, only a small number of doctors in the U.S. Are utilizing them!

Conditions that respond to Brain-Based Therapy include:

Fibromyalgia	Shoulder and arm pain
Dizziness/vertigo Numbness/paresthesia	
Migraine headaches/cluster headaches	Insomnia (sleeplessness)
Lower back pain	Restless leg syndrome
Neck pain	RSDS (a nerve degeneration syndrome)
Sciatica or leg pain	Tinnitus (ringing in ears)
Spinal stenosis	Carpal tunnel syndrome

OTHER SYMPTOMS THAT RESPOND TO BRAIN BASED THERAPY:

Light sensitivity, Blurred vision, Hyperhydrosis (increased sweating), Irritable bowel syndrome or IBS
Increased and/or irregular heart rate, Heart palpitations, Urinary tract infections (due to neurological inhibition of urination), Episodes of depression/anxiety, Difficulty scanning pages while reading, Difficulty adding or subtracting, Difficulty expressing what you want to say, Difficulty understanding what others say to you
Loss of short or long term memory/ problems focusing, Change in handwriting, Being more irritable or angry
Problems with balance, tripping or dropping things, Learning disabilities: dyslexia, ADD, ADHD

If you have any of the above mentioned symptoms and have not been helped by other doctors or treatments, you owe it to yourself to investigate Brain-Based Therapy. Brain-Based Therapy doesn't fix everything, but if your symptoms are due to brain or brainstem imbalance, then fixing these problems is the **ONLY** thing that will help.

Introduction to Brain Based Therapy and Your Nervous System

The spinal cord carries energy from the brain, through the spine like a river to all the vital organs, tissues and cells of the body. Each cell is totally dependent on that energy to stay alive and healthy. "The Nervous System controls and coordinates all the systems of the body and relates the individual to their environment", **Gray's Anatomy, 24th edition, pp.4** Chronic physical, mental and emotional stress can cause a decrease in the brain's "frequency of firing" (electrical impulses) and prevents optimal health.

Normal Brain function

Information (nerve input) from the body is received by the cerebellum and is then directed to the cerebral cortex or lobes of the brain. The cerebral cortex will then send the proper information to the lower brain stem, which will keep the mesencephalon (also called midbrain or upper brain stem) from over-firing. If this upper brainstem does "over fire", then problems occur. See below:

The Problem

In today's world, we have a serious problem. We have a constant influx of emotional, physical, and chemical stress. **Emotional** stress from worrying about money, relationships, family responsibilities and work, can overload our systems. **Chemical** stress due to a toxic environment (pollution, preservatives, food additives, pesticides, herbicides, contaminated water, excessive smoking, alcohol, sugar etc.) and **Physical** stress from injury, over working, excessively loud noises, lack of sleep, or dehydration (from too much coffee, soda or diuretics, or just not drinking enough water).

The brain's response under these stressful circumstances is for the mesencephalon (upper brain stem) to over-fire. Over-firing of the mesencephalon due to a stress response causes the adrenal glands to release cortisol into the bloodstream. Under long-term situations, excessive cortisol can cause weight gain and can be toxic to the brain causing memory loss.

Severe and long-term stress on the body develops into a neurological pattern that often becomes damaging to the nervous system. This neurological pattern or stress response can become chronic and lead to chronic pain syndromes because the type-C pain fibers in the body get inappropriately "turned on" and sense pain.

Fibromyalgia is a good example of this dilemma, and the longer you have it, the more, and faster your brain is adversely affected. The Journal of Neuroscience reports that the McGill University Centre for Research on pain has found, "The longer the individual has had fibromyalgia, the greater the gray matter loss, with each year of fibromyalgia being equivalent to 9.5 times the loss in normal aging".

Our approach:

Comprehensive Health History

This allows us to find any past and present stressors in your life: Physical, emotional and chemical and shows possible changes that point to right or left sided brain dysfunction.

Comprehensive Neurological and Physical Examination

A thorough and comprehensive exam ensures an accurate diagnosis: Blood pressure/pulse rate
Pulse oximeter to test blood oxygen concentration, and tissue oxygen saturation, Heart rate/rhythm, Saliva pH, Reflexes, Eye tests, Cranial nerve tests, Tests for balance and coordination (cerebellum)

Treating Cerebellum and Brain Dysfunction

The cerebellum and brain require 2 things in order to function properly: **1) Fuel for the brain in the form of Glucose and Oxygen.** This is accomplished through dietary changes, detoxification, organic food, nutrition supplements and actual oxygen therapy in the office utilizing oxygen concentrators. **2) Activation to the brain in the form of:** Unilateral adjusting (stimulation of the nerves in the joints of the arm, leg and spine on one side of the body only), to stimulate the side of the brain that is underactive and...**Brain-based rehabilitation therapies in the form of:** Vibration therapy, Auricular stimulation (electrical acupressure to the ear), Auditory stimulation in one ear, Olfactory stimulation in one nostril, Inner ear stimulation through warm calorics, Visual stimulation in one eye or eye exercises. All treatment is one-sided to stimulate the appropriate side of the brain.