Almost 50 years ago, I entered Logan College with a master’s degree in science education. Although chiropractic was described as an “art and a science,” I was most interested in the science. I was taught that the science of this profession evolved and revolved around the concept of encroachment of a nerve in the spine, specifically the intervertebral foramen (IVF). This encroachment was caused by an apposition between vertebrae, and altered the nerve flow innervating appropriate muscles and organs. Slowly, this theory has been expanded to include blood and lymphatic vessels surrounding the IVF. The concept of the chiropractic subluxation began some 100 years ago. That was then; this is now.

Progress has been made with the explanation of the subluxation, however, the neurological implications affecting the higher centers of the brain after forcefully moving bones by hand remains unclear. It is now accepted and taught that the chiropractic vertebral adjustment sends information up the cord into the high brain centers, which sends information back down the cord, hopefully to maintain the new vertebral position.

This awareness is a huge step for chiropractic. By opening up our minds to the idea of high brain involvement in the spinal subluxation, we propel chiropractic from a dogmatic approach to real science. This is the science, which will ensure the longevity of our very profession. By acknowledging the spinal chord and brain as part of the science of chiropractic, a much greater understanding of the effect of an adjustment is evident. In fact, all areas of the brain and spinal tracts are involved in the identification and long-term removal of the subluxation. There must be total nervous system involvement for an adjustment to hold in place. Body, mind, memory, and spirit are all interconnected.

My grandchildren are taught today in chiropractic school, that the new position of an adjusted vertebra will be retained in memory and kept in its new position. Really? Simply because we teach it as a truth, are we actually addressing the cause and correction of the subluxation? Just because we now incorporate the idea of high brain correction in our definition of the adjustment, if we don’t “adjust” or update our technique, how can we claim to do anything more than we’ve been doing for 100 years? Where is the science, and where is the advancement in the delivery system – technique?

A puzzling question to this hypothesis is posed after reading in Guyton’s Physiology textbook, page 547, “More than 99% of all sensory information, received by the brain is discarded as unimportant.” So, if nearly all of the sensory information created by the adjustment is discarded, then the question arises: What creates the memory pattern that is supposed to hold the corrected vertebral position? Why should the vertebra remain in the new position? An even more perplexing question is why adjusted vertebra often return to their pre-adjusted position. Obviously, there is a memory pattern involved in controlling skeletal muscle tone around the vertebral column. Our research has shown that the memory patterns affecting muscle tone, not only have placed the vertebra in its current position, but unless updated, will also work non-stop to recreate the unwanted vertebral position, even after the adjustment.

Digging deeper to affect the tone of the spinal muscles and thereby the vertebral position, we must “speak” the language of the cerebellum, for the cerebellum controls all skeletal muscle tone. The cerebellum is a junction box, which receives information via the sensory system, and then compares this information (without thought) to the appropriate motor pathway in order to obtain the necessary muscle tone for resting or standing, and, yes, vertebral position. This program was established in the memory during the first year of life.

The tone of skeletal muscles around a vertebra changes from standing upright to lying down. In the standing position, the skeletal muscle tone is controlled mainly by the cortical motor
area via the alpha motor neurons. In the lying-down position, the skeletal muscle tone is controlled mainly by the cerebellum via the gamma motor neurons and the golgi tendon apparatus. The cerebellum receives information from cortical input, vestibular nerves – muscle spindle/golgi tendon – skin touch and pressure, and proprioceptive pathways. This is the language of the cerebellum. In the prone position, by touching specific pressure points in specific order, we are able to communicate directly with the cerebellum without involving cortical thinking.

Concerning muscle tone, when standing upright, the cortical areas of the brain are dominant, and when prone, the cerebellum of the brain is dominant.

The question is: What's interfering with appropriate skeletal muscle tone around each vertebra, allowing and causing the subluxation?

Cerebellar pathways are important in muscle synergy, and information leaving the cerebellum goes to all areas of the central nervous system. Nerve pathways that originate in one side of the cerebellum, cross to the other side of the motor cortex and either stimulate or inhibit skeletal muscles, while at the same time impulses pass down the cord to the skeletal muscles of the upper and lower extremities.

Since the tone of spinal muscles changes from standing to prone, it would appear that appropriate muscle tone is a positional problem. But, why then would the muscle tone around the spinal column, when resting in the prone position, remain in a tone that is only appropriate for the standing position? Why would the muscles be tight when it isn't appropriate? This is a neurological challenge indicating some type of memory interference in the high brain.

This condition doesn't seem logical when Guyton states “that the cerebellum compares the actual instantaneous status of each part of the body as depicted by the peripheral information with the status that is intended by the motor system. If the two do not compare favorably, the appropriate corrective signals are transmitted instantaneously back into the motor system to increase or decrease the levels of activation of specific muscles.” So what is the memory that is overriding this corrective mechanism? It can't be conscious, or we could simply “think” it relaxed. So, it must be subconscious. Something is overriding the subconscious corrective mechanism.

So, what is the subconscious memory pattern overriding the innate corrective mechanism?

With the Bio Energetic Synchronization Technique (B.E.S.T.), we call this subconscious emotional memory override (SEMO). It appears that the emotional part of the brain (the limbic system) is the area of memory that is overriding the corrective synergistic mechanism. The response to fear, guilt, hate, anger, etc., is stress induced, memory retained, and motor expressed by the skeletal muscles. It's this middle brain (amygdala, hippocampus, thalamus, and hypothalamus), which retains the memory for recurring and non-responding adjustments.

Our research, appearing in JMPT, has shown that to have a lasting effect on reducing the subluxation, one must address and update the limbic areas of the brain. Following is the procedure we have used to evaluate any technique used to remove or correct a subluxation. When your adjusting procedure is complete, you should observe the following findings:

In prone position, the legs should be equal length down and equal length when flexed.

In supine position legs should be even in length and exhibit no spasticity with gentle internal rotation. (Note: Most anatomical short legs are really physiological short legs that are influenced by the memory patterns of the limbic brain.)

If these findings are not observed, the patient may feel better immediately after the adjustment, but that feeling will soon fade, and the adjustment will ultimately fail.

Today we know that brain cells are not finite, and instead have regenerative capacity to create new cells. Brain cells can be conditioned much like muscle cells; and the more brain cells communicate with each other, the easier it is to retain that communication. Neurogenesis (creating new cells) and brain plasticity (using different neurological networks) are at the forefront of brain research and the foundation of B.E.S.T. Your brain can change its function if you have a desire to change. Desire plus imagination can create new brain neurological pathways. The latest scientific findings demonstrate that environment has an even greater impact on your health than genetics. This exciting field of study – Epigenetics – holds the key to our very survival.

With B.E.S.T., we believe that disease correction is not limited to subluxation correction, but must also include memory pattern correction as well. We have observed that if an individual has a fully functioning immune system, a balanced hormonal system, and a timely functioning autonomic system, then that individual won't be sick or subluxated in any way.

B.E.S.T. has been utilizing these concepts of modern scientific brain understanding for many years. I hope it will not take long for these new findings to be incorporated into the mainstream science of chiropractic. For, to reach the full potential of healing for our patients, chiropractic must advance by embracing the new concepts that clinical and scientific research is providing.

Dr. M.T. Morter, Jr was past president of both Logan College of Chiropractic (1979-1980) and Parker College of Chiropractic (1982-1984). In his 45 years as a practicing chiropractor and health care specialist, Dr. Morter has developed the revolutionary Merton HealthSystem, which is based on his Bio Energetic Synchronization Technique.

Dr. Morter is the author of four nationally released books on nutrition and the mind/body connection, and was featured on the cover of The American Chiropractor in September of 2006.

He and his staff currently conduct programs for health and life improvement, weekend seminars to train health care providers, private life-changing sessions with select clients, national lectures, and his specially formulated supplement line. For more information visit www.morter.com.

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