

Bodily Patterns, PTSD and CranioSacral Therapy

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When a portion of the body, perhaps even a single cell, maintains the morphological pattern of trauma, it can create an internal feeling of the event. This can become perpetual stimulation of stress response causing dysfunction of the autonomic nervous system and lack of homeostasis. Post traumatic stress disorder may develop in response.

Structural and functional patterns exist within our bodies in varying degrees of interrelationship and complexity. Dysfunctional bodily patterns, formed at any cellular, tissue or organ level, may be a contributing factor in Post Traumatic Stress Disorder. “When a current internal state replicates the internal state produced during a previous event, details, moods, information and other states associated to that event may be spontaneously recalled or set into motion.”¹ The cell, or organization of cells, may perpetually respond in form and function, as during the traumatic event, perpetuating an inner experience of threat that is evocative of the original response to trauma. Thus, compromised cellular patterns may cause chronic and abnormal biomechanical and biochemical stress within the body.

Traumatic stress is felt and remembered, consciously and unconsciously, through sensory input. It is through our senses that we continuously experience our inner self, as well as the environment outside of ourselves. “Monitoring the internal environment is essential for the homeostatic mechanisms upon which continued life depends.”² If the sensation within our body tissue evokes the feeling of trauma, our ability to maintain homeostasis may be severely compromised. This compromise, along with the traumatic tissue pattern, may feel life threatening and evoke life saving measures (even though they may not be warranted in the present moment).

Part of the homeostatic compromise occurs due to imbalances of the Autonomic Nervous System and imbalances with central nervous system areas that respond to stress and process memory. The body has automatic reflex responses to extreme stress that elicit the fight or flight response. This is orchestrated by the limbic system, the part of the brain that regulates survival behaviors and emotional expression. The limbic system also has an essential function in memory processing.

When the perception of the situation is such that “death may be imminent, escape is impossible, or the traumatic threat is prolonged, the limbic system can simultaneously activate the parasympathetic nervous system, causing a state of freezing, called tonic immobility.”³

If the body is unable to discharge the energy of the fight/flight/freeze state and return to homeostasis following the event, then a traumatically charged pattern within the tissue may “lay the groundwork for imprinting the trauma more deeply into the circuitry of the brain, encoding it into unconscious memory

¹ Rothschild, B., 2000, *The Body Remembers*, W.W. Norton and Company

² Smith, C.U.M., 2000, *Biology of Sensory Systems*, John Wiley and Sons, Ltd.

³ Rothschild, B., 2000, *The Body Remembers*, W.W. Norton and Company

and in the arousal patterns of the central nervous system...creating the dysfunctional conditions that can lead to post-traumatic stress syndrome.”⁴

The body functions as an integrated whole. Each part is interrelated, from the microscopic level to the organ and systems levels. We are constantly adapting to input from inside and outside the body to maintain a steady state of function.

For a moment, please imagine yourself in a stressful situation and recall how your body felt inside and what your overall body response was. Some reactions may be the breath becomes rapid, neck muscles contract, heart rate increases, body feels like it is ready to spring into action, senses are on high alert, leg and arm muscles contract, or possibly the body immobilizes. Now imagine that this body image, structure, feeling, sensation, is infused with a cell. For some reason, complete release of the traumatic response within the cell is disallowed perhaps due to the severity of the trauma, the duration of the trauma, or the number of incidents of the trauma, to name a few causes. The inner and outer shape of the cell may change to reflect the unreleased energy. As structure changes, function of the cell and the surrounding elements (extracellular matrix) change. The traumatic pattern of the cell may spill over to other cells, causing the inner sensation of trauma and its reaction in the body, as though the events are still taking place. This may lead to the “symptoms associated with PTSD, 1) re-experiencing the event in varying sensory forms (flashbacks), 2) avoiding reminders associated with the trauma, and 3) chronic hyperarousal in the Autonomic Nervous System.”⁵

“Cell shape can modulate many important cell-physiological functions.... When cells in culture are forced into different shapes, they can switch genetic programming.”⁶ Perhaps traumatically induced abnormal cell shape induces intracellular expressions of the stress response. This could radiate throughout the structural components of the cell, including the cell surface, causing adverse structural strain upon the cell wall. Remodeling of the surrounding extracellular matrix may occur due to the interconnection of the inner and outer cell environments. “Integrins are receptors that pass through the cell wall. They mediate cell to cell, and cell to extracellular matrix interactions.”⁷ The change in cell shape can alter the extracellular shape through this interconnection thus creating pattern changes in the surrounding cells. Many of these cells are sensory and may transmit the feel of the pattern, in this trauma, to the central nervous system thereby causing a perpetual state of hyperarousal of the fight/flight/freeze response.

The feeling in the tissue can also be transmitted to the central nervous system through the interconnected network of connective tissue. Each cell is surrounded, imbedded, in connective tissue and the extracellular matrix is a primary component. “The extracellular matrix, as a unitary structure, has direct contact with all parts of the body.”⁸ This creates an interconnecting web like structure throughout the entire body. Tug on the web at one point and the strain will radiate outward in many directions. One possible direction is into the central nervous system which can manifest in abnormal strain upon the limbic system causing dysfunction of the autonomic nervous system.

⁴ Naparstek, B., 2004, *Invisible Heros*, Bantam Book

⁵ Rothschild, B., 1998, *Post Traumatic Stress Disorder, Identification and Diagnosis*, *The Swiss Journal of Social Work*

⁶ Lee, R.P., D.O., 2005, *Interface, Mechanism of Spirit in Osteopathy*, Stillness Press, LLC

⁷ *Dorland’s Illustrated Medical Dictionary*, 29th Edition, 200, E.B. Saunders Company

⁸ Lee, R.P., D.O., 2005, *Interface, Mechanism of Spirit in Osteopathy*, Stillness Press, LLC

Dr. John Upledger, D.O., creator of CranioSacral Therapy, developed the energy cyst concept. “The energy cyst is a localized area of increased entropy, which the host’s body has ‘walled off.’ Entropy is described by the second law of thermodynamics, which says that all energy moves from the orderly to the disorderly. It takes organizational energy to reverse this natural tendency. When we speak of increased entropy in human body, we mean an area in which the energy is less orderly or less organized than it is in nearby areas.... The cyst is hotter, more energetic, less organized and less functional than the surrounding tissues. It can result from physical trauma, pathogenic invasion, physiological dysfunction, mental and or emotional problems....”⁹

An area of tissue pattern that is maintaining a traumatic imprint is an energy cyst. “It seems that the emotional content of an Energy Cyst is capable of entraining the general emotional tone of the whole person.”¹⁰ Entrainment is a circumstance in which elements or processes become coupled with one another. “For example, a number of pendulum clocks mounted on the same wall will eventually entrain, so that all of the pendulums swing in precise synchrony.... What couples the pendulums are vibrations (elastic and sound waves) conducted through the structure of the cell.”¹¹

In this case, the structure is the body. The vibrations that entrain the body are cellular energetic waves of traumatic experience. The energy cyst loses encapsulation and becomes a total body-mind lesion (dysfunction) of chaotic trauma. This appears to cause the body to synchronize, on structural and functional levels, with the unreleased waves of entropy. The whole body vibrations of trauma and hyperarousal sustain autonomic nervous system dysfunction and contribute to the symptoms of PTSD.

CranioSacral Therapy can efficiently address the somatic causes of PTSD. Gentle “hands on” techniques are used to locate restrictive patterns and energy cysts within the body tissue. Correction of dysfunctional patterns occur by assisting the body as it moves into positions that allow release. These positions may be full body alignment, or perhaps a few cells align in a way to facilitate change, release and correction.

As restrictive patterns are discharged, the adverse strain upon the autonomic nervous system can abate. This facilitates greater ease throughout the entire body and normal homeostasis can occur. Limbic system dysfunction can decrease as the abnormal cellular input is released. The biomechanical web of adverse strain may be engaged to release the tugs of trauma that cause extreme compromise throughout the body and nervous system. Integration of disjointed patterns of trauma may be assimilated in a coherent fashion.

The entire person is affected by the symptoms of PTSD. The experience of PTSD, the causes, the degree and patterns of somatic compromise, and the reactions to the compromise, are exclusive for each person. The unique differences of each person are embraced and respected in CranioSacral Therapy.

Infinite patterns of abnormal tissue change can take place in response to traumatic input. Body elements form shapes of varying complexity in response to unreleased traumatic cellular patterning. The CranioSacral Therapy (CST) practitioner acknowledges, respects and utilizes the countless patterns that may exist within the body. The client is engaged, moment to moment, from a therapeutic approach that is based upon facilitating the natural inner self corrective process of the individual. Healing, and knowing

⁹ Upledger, J.E., D.O., F.A.A.O., 1987, CranioSacral Therapy II, Beyond the Dura, Eastland Press

¹⁰ Upledger, J.E., D.O., F.A.A.O., 1990, SomatoEmotional Release and Beyond, UI Publishing

¹¹ Oschman, J.L., 2000, Energy Medicine, The Scientific Basis, Churchill Livingstone

the means by which to heal, come from within the individual. Knowing how to and when to change abnormal patterns resides inside the body tissue of the person living with PTSD.

CranioSacral Therapy practitioners provide, with their hands, the least amount of input into the client's tissue and then observes and follows the body's response. As tissue patterns change, the practitioner continues to support and follow the shifts as they occur. The body is the guide, the practitioner listens to and supports the cellular process. Through this gentle technique, changes in abnormal somatic traumatic patterns are guided by the body's inner ability to self-correct and heal.

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