

Manual Cranial Therapies and the Treatment of Mild TBI's

Part II

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In Part I of A New Challenge – Treating Mild Traumatic Brain Injuries I mentioned that many symptoms can appear after a mild Traumatic Brain Injury (aka TBI). Some occur in the brain directly and others appear as a response to the brain not functioning properly. Therefore, all clients who have a mild TBI have symptoms unique to their case. One of the biggest mistakes therapists can make is assuming clients do not have a mild TBI after they have had an accident. One symptom of a concussion is no memory of the actual event. This creates a special challenge when treating clients who may have a mild TBI. They won't report an incident causing the injury. A good example of this is a whiplash or a severe fall where the head was not directly impacted. This was demonstrated to me by a neurosurgeon when he took a raw egg and shook it rapidly back and forth twice to simulate what happens to your brain during a whiplash injury. When he cracked the egg it was fairly well scrambled with the yolk broken. The egg had moved rapidly back and forth crashing into the shell causing structural damage to the soft part of the egg. This happens to the brain when it moves rapidly back and forth crashing into the bony parts of the skull. The skull has many internal ridges, and when the brain crashes into them there can potentially be even more damage than what happened to the egg.

Mike, a 13-year-old soccer player, suddenly lost total interest in soccer and school work. All he wanted to do was lounge in his room with the lights out. He also complained of headaches and difficulty concentrating. Previously Mike was an “A” student with many interests and hardly ever spent time in his room. Now he was lethargic and quitting the soccer team surprised everyone, especially his coach. Mike was the star of the team and his coach had already talked to scouts who were looking at him for potential future college scholarships. Mike's mother had taken him to doctors, psychologists, and a sports pediatrician who gave her vague answers, including hormones that were affecting his attitude and he would grow out of it.

Mike's total lack of interest in school work caused her to contact me because she heard of my work with children who had difficulty concentrating with learning disabilities, a suggestion made by one of the psychologists. I questioned both Mike and his mother about his changes. They came on suddenly six months ago when Mike became lethargic and lost interest in soccer. This raised a red flag for me to look for potential brain trauma since his symptoms indicated a mild TBI. Neither Mike nor his mother could recall a severe injury while playing soccer, but said they would ask the coach.

I used kinesiology to evaluate Mike and found that compressing the cranium tested weak which showed swelling and inflammation in his brain. Additional kinesiological tests also showed the distortion of the cranium was exaggerated – the core distortion¹ - with a structural imbalance associated with the cranial imbalance. Mike also had limited range of motion in his neck.

Even though Mike exhibited symptoms of a concussion or mild TBI, none of the physicians or psychologists did any testing. However, my kinesiology testing showing swelling and inflammation in his brain along with Mike's symptoms indicated he might very possibly have a concussion and needed

¹ Don McCann, The Evolution of Releasing the Core Distortion. *Massage Today*, July 2014 Vol. 14, Issue 07

treatment for it. Again, the question was, would the Cranial/Structural techniques and myofascial soft tissue work² be beneficial to Mike's recovery?

I asked Mike's mother to contact the physicians and request an evaluation for possible mild TBI diagnosis. Since Mike's symptoms occurred suddenly six months ago and none of the physicians indicated a mild TBI it appeared to be okay to do Cranial/Structural work to help his brain recover if it was a mild TBI. The techniques that I would use had been successful for children with learning disabilities and symptoms similar to Mike's.

The imbalance of Mike's cranial motion was first addressed with the application of the Cranial/Structural Core Distortion Releases³ (aka CSCDR). This treated the imbalance of the cranial bones and the structural imbalances found in Mike's body including his neck. He had an increased range of motion in his neck and his overall structural balance was significantly improved. The distortion of Mike's cranial bones had a significant effect on the meninges and the way they held and organized Mike's brain. By bringing the cranium into balance the support from the meninges for the brain came into balance which would facilitate the healing of any damage in the brain. There would be pumping of cerebral spinal fluid which would carry away waste products and debris that are present in mild TBI. The structural changes in the neck also took pressure off the brain stem as it came through the foramen magnum – a major cause of headaches. Additional myofascial work with Mike's neck and shoulders further helped the structure and range of motion of the neck.

Kinesiological testing still showed fluid and swelling in Mike's brain which indicated that the glymphatic and lymphatic systems were possibly damaged, so the Cranial/Structural Frontal/Occipital Decompression⁴ was applied which manually pumps the glymphatic and lymphatic systems to pump out fluid, inflammation and talc. After the session Mike reported he no longer had a headache, and he seemed less lethargic and interested in completing his homework.

At the next session Mike's mother was very excited and reported that he was no longer lethargic and was interacting with the family. She had spoken to the sports pediatrician about a concussion and he ordered a CAT scan. He admitted that Mike's symptoms could be due to a concussion – a mild TBI, and asked her to contact the soccer coach regarding an injury. Mike's treatment included another Frontal/Occipital Decompression because kinesiological testing revealed some swelling and inflammation. This was followed by myofascial work that brought his entire structure into balance. Mike was talking and behaving with the enthusiasm of a normal 13 year old.

At the third session Mike's mother reported that the CAT scan showed brain damage consistent with mild TBI from a concussion. Mike's soccer coach had recalled that Mike had been on the ground for two minutes after a head to head collision with the goalie during a practice exercise. This coincided with the onset of Mike's symptoms. He was rapidly returning to his old self and wanted to play soccer again. His mother was not at all in favor of this.

Mike was treated three more times with the Cranial/Structural therapy, the Frontal/Occipital decompression, and myofascial therapy. Kinesiological testing showed no evidence of swelling or inflammation in the brain. The Sports pediatrician did another CAT scan and released him back to playing soccer saying his recovery was remarkable.

² Don McCann, The Integration of Cranial/Structural and Soft Tissue. *Massage Today*, February 2014, Vol. 14, Issue 02

³ Don McCann, The Evolution of Releasing the Core Distortion. *Massage Today*, July 2014, Vol. 14, Issue 07

⁴ Don McCann, New Research by University of Rochester Medical Center Explains Cranial/Structural Frontal/Occipital Decompression Results! *Massage Message*, January-February 2013 issue.

The research on the glymphatic and lymphatic systems shows the importance of restoring them for recovery from mild TBI. According to Jeffrey Iliff “essentially all neurodegenerative diseases, including Alzheimer’s disease, protein waste accumulates and eventually suffocates and kills the neuronal network of the brain.”⁵ Similar damage to the meninges also affects the lymphatic system which recent research shows is much more extensive and prevalent in the brain than previously thought. Quoted from UVA Today Johnathan Kipnis says “we believe that for every neurological disease that has an immune component to it, these [lymphatic] vessels may play a major role.”⁶ It is obvious that a highly functioning lymphatic system is necessary for recovery from TBI due to the inflammation and accumulation of waste products.

The research on the glymphatic and lymphatic systems along with what happens to the brain with mild TBI shows that there are systems within the brain that need treatment in mild TBI. The case studies presented in Part I & II of this article show how hands on Cranial/Structural therapies combined with myofascial techniques can facilitate recovery from mild TBI by balancing the meninges and stimulating the glymphatic and lymphatic systems to restore brain function.

⁵ Quote from the research report: University of Rochester Medical Center. "Previously unknown cleaning system in brain: Newer imaging technique brings 'glymphatic system' to light". Science Daily, 15 Aug. 2012. Web. 27 Oct. 2012.

⁶ Quote from the research report: University of Rochester School of Medicine. “Researchers Find Textbook-Altering Link Between Brain, Immune System. UVA Today, 1 June 2015.