

Impacting Sensory-Motor Function with an Adult with Multiple Sclerosis

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Through this story, I will show how MNRI® program has helped T.W. regain sensation and motor function that she thought was lost due to multiple sclerosis (MS).

Introduction and Presenting Problem

T.W. was a 31 year old woman who was diagnosed 10 years ago with MS. Over the years since her diagnosis she has undergone four medical treatments including subcutaneous injection, an intramuscular injection, a low-dose cladribine/steroid treatment, and a once a month infusion treatment. She had received physical therapy on and off between the years of 2001-2006, and in 2010 she was prescribed a Walk Aide, which is an electrical stimulation device used for foot drop. At the time of our first MNRI® session, she was still receiving a monthly infusion treatment but is no longer.



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T.W. and I had our first session using MNRI® techniques on November 25, 2011. At that time, her main issues were loss of sensation in her left leg with decreased motor control and poor balance. These challenges caused her to have significant difficulties in safely and confidently managing stairs, a necessary daily activity for getting to and from work. She also was experiencing a decline in activities she previously was able to do, i.e., now she frequently required support to maintain her balance while walking, assistance to dress her lower extremities due to inability to lift her left leg, inability to carry out fitness activities and exercise programs, or to run errands independently due to balance and bladder control issues. She has also sustained injuries from several falls where she was unable to catch herself.

Evaluation of reflex pattern responses showed an over-active 'red light' or 'freeze' response in her Core Tendon Guard Reflex, giving her a flexed, protective posture, causing asymmetry especially on her right side. Responses to sensory stimulation of her foot reflexes (Foot Tendon Guard, Babinski, and Foot Grasp) were not symmetrical and presented mixed patterns for all. She did not have sensation on her left leg. Her Trunk Extension was limited, with movement stopping at hip level. Her Leg Cross Flexion-Extension showed an incorrect motor pattern and direction of movement, i.e. when the correct motor response was to come down with her leg to 'catch' and protect herself, instead her leg moved up and off to the side. Her comment at this time was, "I have no idea where down is." During the pre-test for Thomas Automatic Gait, she was extremely unsteady with her forward gait, unable to maintain her balance with backward gait, and described her sideways gait as "very difficult, uneven, and scary." Her spinal reflexes were asymmetrical. She responded to Spinal Galant with hypersensitivity and inability to shorten and lengthen between her shoulder and hip. She responded to Spinal Perez with inability to activate sacral movements. The Hands Supporting Reflex was asymmetrical and she was

unable to move her right arm into full extension or in the correct direction.

Treatment & Results

During our first treatment session we facilitated integration of her Core Tendon Guard Reflex pattern to establish symmetry. We then facilitated Foot Tendon Guard and Babinski Reflex patterns to establish the correct sensory-motor response and it was during this process that she regained feeling in her left leg and foot (which she thought was permanently lost). When facilitating Leg Cross Flexion-Extension, we first trained the protective step of the reflex pattern: her leg coming down to catch herself. When she was trying to use a conscious process to direct the movement, she had no control of her leg. We needed to initiate the integration process by using the command to 'just think about the movement' and this eliminated the effect of trying too hard. Once the pattern was established, we were then able to continue the integration process to the point where the motor response was automatic when the sensory stimulus was presented. She no longer relied strongly on cortical thinking. We then addressed her spinal reflexes. We were able to establish the correct motor response, but symmetry and timing were still not accurate. The Hands Supporting Reflex pattern was facilitated so that if she did fall, she would have the upper limb reflex response to catch and protect herself.

Prior to this treatment session, she used both hands to hold the railing and the wall when she walked down stairs, looked down at her feet to direct them, and used a robotic gait, kicking one leg out in front of her and having it land on the step as it came down. This was a terrifying process for her. After this first session, she walked down the steps with one hand on the railing, using a relaxed automatic pattern, and turned to look behind her during mid-step to say something to me without realizing what she had just done! In the days that followed, she was able to dress herself independently, manage the steps going to and from work, walk without needing to hold someone for balance (with the exception of times of fatigue or illness), carry out integration exercises that we established to continue the integration process, and, during episodes of tripping or falling, she was able to catch and protect herself using her arms.

We had a second session one month later. During the pre-test, she showed improvements in her spinal reflex responses (she had been doing a Home Program), maintained the feeling in her left leg, and maintained the results of the other patterns we had addressed the month before. During this session we focused our attention on reflex patterns for balance, grounding, and stability, along with Thomas Automatic Gait. Following this, she was able to step forward, backwards, and side – both directions without support and with significantly improved control and confidence. Following this session, when she went to put on her Walk Aide, she hesitated as she was unsure of what leg had needed it! She has not used this device since. Functional changes were made in her ability to run errands independently, pick up a few things from the store without using a cart for balance and support, walk and turn her head to carry on a conversation or look at something without losing her balance, and maintain her balance on the train (using her legs for weight shift instead of relying on her arms to hold on). She began doing exercises she had received from physical therapy for core strengthening. She developed improved bladder control and enjoyed an overall increase in her energy level.

We have had three more sessions since the initial two over the past year and her progress and gains in motor control and functional skills continue to grow. Her immune system appears to have strengthened as demonstrated by shorter episodes of illness and more rapid recovery with no loss of skills. Our frequency of sessions has been limited by distance but she faithfully carries out exercises and activities to support the continued integration of the reflex patterns (including following the Archetype Movements).

MNRI® techniques enabled T.W. to gain motor functions that were thought to be lost. Her neurosensorimotor system has moved from a state of strong protection and survival to one in which her primary reflex patterns were responding with a more appropriate or adequate sensory motor response. The effects of this have been improved motor coordination, improved functional skill and quality of life, decrease in anxiety, improved immune system function, and a higher energy level. It is our hope that, with continued work using MNRI® techniques, T.W. and others with a diagnosis of MS will be able to regain functions thought to be lost and explore the possibilities of influencing this disease process.



I congratulate T.W. for her positive outlook and sense of humor in her courageous approach to life. I am so grateful for what she has taught me through this journey. – Laura Paquette

Reflex Integration with a Child Diagnosed with Hypoplastic Left Heart Syndrome

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Through this story I will describe the progress of a child who has a diagnosis of Hypoplastic Left Heart Syndrome and how he responded with significant changes by the use of MNRI® techniques.

Wesley was born on April 6, 2009 at 34 weeks gestation with Hypoplastic Left Heart Syndrome, paralysis of his left vocal cord, and feeding difficulties requiring placement of a G-tube. He underwent Norwood/Sano open heart surgery soon after birth and had his second surgery of right superior vena cava to right pulmonary artery anastomosis in August of 2009.

I first met Wesley when he was two years old in September, 2011. At that time I was replacing the occupational therapist who had been seeing him since he was 8 months old. I was warned that he would most likely vomit upon seeing me, as he was very sensitive to change and easily upset. He was significantly delayed in his motor skills, had orthotics for support in his shoes, he inconsistently and selectively accepted tastes of foods often gagging upon swallow, and frequently vomited when touching, looking at, or smelling foods. Leaving the safety and familiarity of his home was stressful and a challenge in itself due to his tube feeding schedule, etc. The family had also just lost their in-home nursing care, which they had been receiving 8 hours per day.

On the day of our first meeting, Wesley looked me over and allowed me to sit on the floor next to him. Given his developmental history, I anticipated that most of his primary reflex patterns would not be adequately integrated. After playing for several minutes I asked if I could touch his feet. He agreed and I began to provide the sensory stimulation and motor response for Babinski and Foot Tendon Guard. He looked at me with curiosity and proceeded to move himself into various reflex positions. We had been told during MNRI® trainings that children will often lead you to what they need by assuming the reflex posture or motions so I followed his lead. This is how our relationship and therapy sessions proceeded. He never vomited during our visits and always took an active role in telling me what he needed. It was not unusual for me to begin to work with one reflex pattern and he would tell me to work on another such as, "Not feet, back."

Within approximately six months (two visits per week) Wesley no longer needed his foot orthotics, his motor skills progressed rapidly, his language skills improved from single words to multiple word sentences, his vomiting decreased to the point that it was usually only triggered by coughing and illness. They were able to increase the size of his bolus feedings, and he began to slowly take more foods by mouth and eventually took enough to be considered significant calories allowing the gradual decrease in tube feedings. (His nutritionist



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commented that she was amazed, as she had doubted that he would ever eat orally). His sensory defensive responses significantly reduced and he was generally less fearful, allowing the family to go out of the home and into public without distress. He became stronger and more physically active. Upon turning three, he did not have delays significant enough to qualify him for Early Childhood services through the public schools.

We continued monthly visits from the time Wesley aged out of the Birth to Three program until Wesley had his third open-heart surgery to finish the reconstruction of his right ventricle at Mayo Clinic in Rochester, MN in September of 2012. To the surgeon's surprise, Wesley's left ventricle had grown and they were able to reconnect the flow of blood to this side of his heart. His parents were told that over the past 15 years of performing this surgery, Wesley was only the second child where they had seen this occur. While in the hospital, Wesley began therapy to aid in his recovery process. Mom called and said he wanted to come home for therapy and asked where I was.

Once he was home I began seeing him on a weekly to every other week basis. He was in strong protection, showed defensive responses to touch, movement, refused to go outside, and did not take foods orally, etc. We slowly began the process of integrating his protective reflex patterns again. Over the next few months he made rapid progress. He was now taking the majority of his calories by mouth (although not enough to remove his G-tube yet), engaging in activities with other children his age, became potty trained, enjoyed impressing people with his physical abilities, began sharing a bedroom with his brother, and sleeping in his own bed. His recent echo cardiogram revealed that his left heart function improved from 52% following surgery to 62%. His medical team refer to him as their miracle child.

It appears that the use of MNRI® techniques enabled Wesley's nervous system to move from a constant state of strong protection and survival and a lot of tension to one of greater balance allowing him to mature and develop higher brain functions. I propose that this influenced his ability to respond more appropriately to sensory information, allowed his body and heart to grow, and supported his motor, emotional, and language development. Our goal of Wesley's feeding tube being removed came true a few months later. He is now moving toward in his next goal to no longer need therapy services and live his life more freely, joyfully, and to realize his full potential.



I want to thank Wesley and his family for allowing me to be a part of their lives and share their incredible journey with them. This would not have been possible without the immense love and devotion from his parents and brother, along with Wesley's courage and persistence. – Laura Paquette

Multiple Sclerosis and Neurosensorimotor Integration

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It is my intention in this story, to provide a summary of the results of two, 2½ hour sessions using MNRI® techniques with an adult who has had a diagnosis of multiple sclerosis (MS) for 19 years.

Hans is a musician who is in his 50's and was diagnosed in April of 1994 with MS after experiencing paralysis of his left arm and hand during a performance. He was diagnosed with MS after ruling out Lyme disease, diabetes, and a brain tumor. He was treated with IV steroids and regained movement but continued to experience decreased dexterity of his left arm and hand. At that time he was advised not to run as it could advance the disease. After considering that advice, decided to start running regularly for fear he would someday not be able to. He continued running up until five years ago at which time he experienced a relapse and his walking ability deteriorated significantly. At this time he began taking Copazone and was told he probably would not regain his motor function. He has had acupuncture treatments, massage therapy, and continues to take Copazone.

A mutual friend of ours suggested seeing if MNRI® techniques could help him as she knew I had a niece with MS that had responded well. He decided to give it a try. During our initial visit and assessment on Oct. 21, 2011, he presented with a shuffling, unstable gait that required a great deal of energy, effort, concentration, and caused a lack of confidence regarding his balance and safety. Upon assessment he presented with asymmetry with his left side being more rigid and less mobile and his right side over-compensating. He had decreased sensation in his feet (especially his left). He lacked the ability to move his hips freely. When asked to demonstrate various movements and to give feedback on his sensation and movement awareness, it was clear he had difficulties with his overall body scheme. We initiated our treatment with the intention of establishing greater symmetry by facilitating the integration of his Core Tendon Guard Reflex pattern. During this process we both were acutely aware of his Tendon Guard release. We then facilitated the integration of his Babinski and Foot Tendon Guard reflex patterns resulting in a greater awareness of his movements, mobility, and feeling through his feet and legs. The assessment of his Spinal Galant Reflex pattern indicated he was hyper-sensitive and hypo-active with little active hip motion. By working with this pattern and Leg Cross Flexion-Extension, we were able to achieve active hip motions, the ability to shift his weight from one leg to the other, and establish a better sense of his feet contacting the ground. We ended our session agreeing to be in touch. Several days later he called and described feeling a bit overwhelmed and pleasantly surprised and optimistic with the changes he felt in his walking. He stated that his friends and family had noticed the changes as well. We met again the



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following week.

During our second session we used several of the Archetype Movement Reflex integration techniques to establish his foundational movement patterns to support the integration of his Dynamic and Postural Reflex patterns. It was during this process that his body awareness improved significantly and he established improved midline orientation and control. We further integrated the automatic responses of many of the reflex patterns addressed on our first visit and then put them into intentional movements by marching, dancing using hip movements, rotation, cross crawl pattern, and lateral flexion and extension of his spine. When he walked to the kitchen to get a glass of water, he realized he had walked there without thinking about it and said with great surprise, "Did you see what I just did? That's amazing."

Several days later Hans went to Arizona for the winter and emailed me to say that he had just gone for an hour and a half walk in the desert! Prior to this walking was not something he looked forward to and did not engage in walking activities that required distance or length of time more than a few minutes. He bought a used bike and made a goal of walking or riding his bike verses taking his car whenever possible. Several months later upon his return to his home to the midwest, he confided with excitement in his eyes and voice that he had started running to and from the mailbox (which is approximately 300 feet) and running to and from the garage (which is at least 75 feet each way).

During an outdoor musical performance (in extreme heat which can be quite challenging for people with MS), I watched him standing for the entire performance, dipping his guitar, shifting his weight, moving around the stage over wires and equipment with relative ease, smiling his infectious smile, and radiating confidence. I sat back with a feeling of immense gratitude for the efficiency and complexity of our brains and for Dr. Masgutova and MNRI®, which provides us with techniques that can influence the organization of our primary reflex patterns through our sensory motor responses in a safe, natural way that enables us to recover functions thought to be lost.

We have had a couple of additional sessions but these have been limited by distance and weather. Hans continued to gain motor skills and maintain the skills he acquired on previous visits. We look forward to future therapy sessions, anticipating continued advancements in his skill, and hope to provide support and information that may help others experiencing the effects of multiple sclerosis.



I would like to congratulate Hans and his openness to try MNRI® techniques, and I am grateful for the outcome that brought him movement, joy, and happiness that he so freely gives to others.
 – Laura Paquette