

Lisa's Holistic Rehab - Occupational Therapy Services
 Rehabilitate while you compensate.



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Brain Reboot
 Reach your potential!

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SERVING HALIFAX, NOVA SCOTIA AND SURROUNDING AREAS

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Lisa's Holistic Rehab – Occupational Therapy Services has special training in sensory integration, chronic pain management, mental health, home care, and cognitive rehab principles to offer a complimentary service.

We are dedicated to providing cutting-edge cognitive rehabilitation to people with traumatic brain injuries/concussions, Post-Traumatic Stress Disorder (PTSD), Attention Deficit Hyperactivity Disorder (ADHD/ADD), Fetal Alcohol Spectrum Disorders (FASD), Dyslexia, Developmental Coordination Disorder (DCD), learning disabilities, Auditory Processing Disorder, Sensory Processing Disorder, Asperger's and Autism.

We promote functional independence for people dealing with the effects of any disease, injury or disability and enable the development of skills for daily living.

All ages are welcome. We are a Blue Cross provider (direct billing) and welcome military members, RCMP, and first responders.

REHABILITATE FIRST

Wouldn't it be great if you could treat the root cause of your or your child's learning disability and not just focus on the symptoms?

When dealing with a disability or injury it is important to follow a logical approach to treatment in the following order:

- 1) Rehabilitate
- 2) Find an alternative way
- 3) Compensate (cope)
- 4) Substitute

Often when dealing with children or adults with learning disabilities or brain injury the tendency is that the client receives a compensatory approach. Although this approach is crucial to being able to cope on a daily basis it is always important to incorporate rehabilitative interventions for real long lasting change to occur. It is possible to find ways to improve neuroplasticity of the brain.

UNDERSTANDING THE BRAIN

The brain is the most complex organ of the body. It is responsible for our actions, emotions, thoughts, language, movement, and internal systems of the body. A brain that is not working to its full potential can present as learning disabilities, developmental delays, mental illness or brain trauma. In order to

help the brain get back on track, we must first understand what makes it work.

What is neuroplasticity?

"Neurons that fire together, wire together."

Neuroplasticity is the ability of the brain to change itself. The brain was once thought to be hard wired. New research has shown that many aspects of the brain remain changeable (or "plastic") even into adulthood. Neuroplastic change can occur at the individual neuron level or to the whole brain as it remaps itself after injury. This is important to those suffering from a diagnosis (PTSD, brain injury, ADHD, autism, FASD, dyslexia, etc) because with the proper treatment by a knowledgeable rehabilitation therapist, many of the symptoms can improve.

THE INGREDIENTS NEEDED FOR NEUROPLASTICITY TO OCCUR INCLUDE:

- 1) THE PERSON IS FULLY ENGAGED, INTERESTED, AND FOCUSED
- 2) THE TASK MUST INCORPORATE NOVELTY TO EXCITE THE BRAIN AND CREATE A STRONGER CONNECTION BETWEEN NEURONS
- 3) THE MORE THAT CONNECTION IS USED (REPETITION), THE STRONGER IT GETS
- 4) IT MUST BE THE JUST RIGHT CHALLENGE.

A systematic approach

When a baby is born, he has limited control over his body and uses his reflexes to survive and to prepare him for movement.

As he engages with the environment he will take information in through his 8 senses - feels his stomach grumbling (interoception); feel his wet diaper (tactile); be soothed by the rocking motion (vestibular) or mom's voice (auditory).

Once he integrates this, then he is able to start to crawl (gross motor), then he starts using his hands to put together puzzles or write (fine motor), then he integrates it all and is ready for higher learning. When any of these skills are delayed, the pyramid starts to fall apart.

Infant reflexes can reappear in adults who have brain injury or trauma. They find themselves in survival mode and try many ways to cope. The good news is that both children and adults can get back on track with a systematic rehabilitation plan to offer treatment to help strengthen each skill.

READING DISABILITY TREATMENT



Tutoring a child with dyslexia can be like letting a track and field coach force your child to sprint on a sprained ankle. We need to work directly on brain function.

Straight from Australia, the Cellfield program is a brain based 12 week intervention reading disability program that helps rehabilitate and strengthen the auditory and the visual processing skills that cause difficulty for these readers. This program gets to the root cause (neuroplasticity) by using visual exercises to stimulate visual attention, visual processing and working memory, as well as acoustically modified sound to assist auditory perception. In doing so, it develops stronger connections in parts of the brain which are involved in reading.

Lisa's Holistic Rehab is the only provider of the Cellfield program in the East Coast!

ADHD THERAPY



Attention Deficit Hyperactivity Disorder (ADHD) is commonly diagnosed and affects children, teens and can continue into adulthood. Symptoms include hyperactivity, poor impulse control, inattention, and poor organizational skills. Although in many cases medication is prescribed, some parents are reluctant but may eventually decide to give it to their child because there are limited resources available to their child and it is affecting their academic performance.

There are however many other possible diagnoses that appear like ADHD because they contribute to inattention, hyperactivity and impulsivity. It is important to rule these out with your doctor or specialist. An occupational therapist would be crucial to have on the team not just for assessment but also for therapy. Other professionals such as a neuro optometrist or audiologist can help rule out other disorders that mimic ADHD. There are many other therapies available to choose from:

Listening therapy includes classical music that has been acoustically modified to provide enhanced or filtered music in certain frequencies, as specific frequencies are connected to certain brain functions. The music is delivered through both air and bone conduction (small vibration of skull). While listening the person can do some visual, balance and motor exercises.



Temporal processing training

The brain has an internal clock and it is responsible for focusing attention, reading comprehension, remembering information, processing speech and motor coordination.

There exists a growing body of literature describing the brain timing deficits in ADHD (Shaffer et al, 2001), Dyslexia, Autism, Reading Disorders, Auditory Processing Disorder, and other conditions. By addressing timing in the brain with therapy interventions you are improving skill in comprehension, memory, coordination and processing that impact achievement and independence.

PTSD INTERVENTION

Post-traumatic stress disorder (PTSD) is a psychiatric disorder that can develop following a traumatic event that threatens your safety causing you to feel helpless. PTSD is often seen in those who survived an assault, in military soldiers in combat, and in first responders. Any unpredictable and uncontrollable event (or series of events) that overwhelms you with feelings of hopelessness and helplessness can trigger PTSD.

Common symptoms include sensory difficulties, upsetting memories, flashbacks, nightmares, intense physical reactions (sweating, pounding heart, nausea), increased anxiety, emotional arousal, trouble sleeping, irritability or outbursts of anger, feeling jumpy and easily startled, and hyper vigilance.

Although PTSD is a mental illness it also presents as a brain injury showing difficulty concentrating, poor memory, and poor executive functioning (planning, organization, initiation).

Lisa's Holistic Rehab offers non-threatening and cutting edge interventions for PTSD to help calm down an overextended nervous system using sensory and reflex integration therapy and other effective interventions.



References

Doidge, N. (2015). *The brain's way of healing: Remarkable discoveries and recoveries from the frontiers of neuroplasticity*. New York, NY: Penguin Group

Shaffer, R. J., Jacokes, L. E., Cassily, J. F., Greenspan, S. I., Tuchman, R. F., & Stemmer, P. J., Jr. (2001). Effect of Interactive Metronome® training on children with ADHD. *American Journal of Occupational Therapy*, 55, 155-162.

Coming next issue:
Is it ADHD? Other possible diagnoses.
What is Sensory Processing Disorder?
My child has 20/20 vision but is still struggling at school...Now what?

