MULTIPLE SCLEROSIS ALTERNATIVE THERAPY WITH EEG BIOFEEDBACK NEUROFEEDBACK

Multiple sclerosis alternative therapy search has sometimes led people to Neurofeedback. The research in the use of EEG biofeedback as an alternative MS therapy has been patchy and the results
of it quite variable.

In one early study people who were completely disabled with MS were able to resume their professional lives after training with Neurofeedback. In another group of people the results were less dramatic.

Multiple sclerosis is a remitting and relapsing condition. It is considered to be an idiopathic disease of possibly autoimmune origin. The person's immune system attacks the brain and spinal cord leading to demyelination. This causes disturbances in the communication networks within the brain and spinal cord.

Like other organic brain conditions including degenerative disorders likeAlzheimers dementia, Neurofeedback's benefit as an alternative multiple sclerosis therapy is easy to understand. Training with EEG Biofeedback affects the neuronal resources which are trainable - despite of the damage present within the cortical and subcrotical premises.

Immune system regulation and improvement of symptoms which might be secondary to the structural changes within the cortex - such as mood changes, depression, fatigue and psychosis may also explain an overall positive benefit from Neurofeedback for multiple sclerosis.

Amongst other MS alternative therapies that target the brain directly in improving the symptoms and enhancing functionality in people affected - EEG biofeedback training is set to become a complementary adjunct to other alternatives for multiple sclerosis management.

Multiple Sclerosis

MS involves organic injury to the white matter of cortex, so one's first question might be: Why should Neurofeedback help with MS? Neurofeedback trains the neuronal resources that are trainable, whatever they may be. Even if there is neuronal loss, Neurofeedback can still help to organize brain function with what remains. The expectation would be for some fractional improvement in symptom severity. But it's not as simple as that because MS is typically episodic, with symptoms waxing and waning. So it may not always be clear just what the Neurofeedback might be contributing in a particular case. Ultimately such matters need to be addressed in formal group studies.

In reality we have the opposite problem. Sometimes Neurofeedback / EEG Biofeedback triggers more recovery than seems reasonable. This is what occurred in the first report of Neurofeedback on MS some years ago, where exceedingly good outcomes were obtained for three people, whereas three others hardly responded at all. Among the responders, people who had been totally disabled by MS were able to resume their professional lives. Such extraordinary results are not commonplace, however, and subsequent hopes along those lines have been disappointed.

The positive findings do need to be explained, however. It is possible that in these cases there was a positive influence on immune system regulation, so that the assault by the body on its own white matter may have been ameliorated. The Neurofeedback may have effected a down-regulation, or reregulation,
of immune system functioning in these particular cases.

The newer, more comprehensive Neurofeedback strategies may do better than the early ones in terms of this larger objective of neuro-regulation. Studies are badly needed to evaluate these hypotheses.

The whole approach of brain training using the EEG has spawned some other ideas in which the brain
is stimulated continuously at a low level in order to keep the brain on its toes, if you will. Initial results with one of these technologies, the Enermed, are turning out to be favorable. At this point, we only have anecdotal reports. However, these reports refer to relatively advanced stages of the condition, where options are few. (www.Enermed.com)

One can see a pattern emerging here in which intensive Neurofeedback training is undertaken for

both symptom suppression and immune system regulation, to be accompanied by steady-state stimulation to maximize brain function over the longer term. - Siegfried Othmer, PhD

Neurofeedback and Multiple Sclerosis

Multiple sclerosis is a common neurological illness that typically commences between the ages of twenty and forty-years of age; once Multiple Sclerosis has manifested itself, an unpredictable course follows.

Multiple Sclerosis affects thirty to eighty people per every one-hundred thousand, and is the most common non-trauma induced central nervous system disorder affecting individuals between the ages of thirty and forty years. Somatic symptoms of Multiple Sclerosis include weakness, impaired vision, impaired bladder or bowel control, chronic pain, and paralysis. Multiple Sclerosis has a profound impact on every aspect of an individual's life, especially as it typically afflicts people in their most productive years. Multiple Sclerosis is characterized by myelination throughout an individual's central nervous system. The loss of myelin leads to impaired neural transmission, which becomes the underlying source to a variety of cognitive problems and impairments observable in individuals diagnosed with Multiple Sclerosis. For example, individuals suffering from Multiple Sclerosis often experience difficulties with short-term memory, and also information processing efficiency. Information processing efficiency involves the congruent employment of both an individuals' working memory and the speed by which they are able to process information. Working memory primarily involves the concurrent temporary storage and processing necessary for the performance of a variety of cognitive tasks. Working memory has been presented as a set of limited capacity subsystems within memory, specializing in different types of temporary information storage. Working memory is the area of the brain responsible for individuals being able to multi-task; recall multiple amounts of information at once; and / or perform one task while preserving the products of earlier completed tasks.

Limitations of working memory capacity possess a significant contribution to individuals with Multiple Sclerosis in terms of impairment in learning new tasks and information. Structural and Operational deficits in working memory, seen in Multiple Sclerosis sufferers, manifest an extremely large hindrance in terms of learning new information. A variety of emotional and somatic symptoms also fall under characteristics of Multiple Sclerosis, such as restlessness, fatigue, physical disability, decision-making difficulty; disinterest in sex; sleep disturbance; anxiety; and depression. Depression in particular is prevalent among Multiple Sclerosis patients, and is diagnoses in higher prevalence when compared with individuals suffering from other medical or neurological conditions with levels of physical disability similar to Multiple Sclerosis.

Depression coexisting with Multiple Sclerosis can greatly increase an individuals suffering, as well as affect their productivity and the course of the disease. Depression also affects the rehabilitation of Multiple Sclerosis patients, as it reduces motivation, and increases risk of suicidal ideation and suicide. Depression and anxiety however, are often overlooked when creating a treatment plan for individuals suffering from the effects of Multiple Sclerosis.

Neurofeedback offers an effective alternative therapy to enhance and supplement treatment for Multiple Sclerosis, targeting often overlooked problems, such as Depression and Anxiety, by treating the person's brain directly. If you or someone you love, suffer from the debilitating effects of Multiple Sclerosis, we at the Sinha Clinic encourage the exploration of all available treatment options, such as Neurofeedback.

Understanding the Chiropractic Adjustment

The collective message is one of profound brain plasticity that allows us to teach the brain improved self-regulation. Whereas life for many of us has been a matter of accommodating to the limitations of body and mind, many of them getting worse as we age, through Neurofeedback we are discovering how much our own behavior, and our own capacities, can be placed under our own control and

subject to systematic improvement.
Our capacity for the enhancement of brain function is in many ways greater than our capacity for enhancement of physical skills through exercise and training. Therapeutic Applications of Neurofeedback
Neurofeedback is a powerful technique that can train the brain toward better function. Improved functioning means relief for many - i.e. migraine sufferers have no more headaches, insomniacs fall asleep easily, autistic children relate to others. What we've discovered is that disregulation of brain function is a core issue in many disorders.
The following are thumbnail summaries of our own clinical experience, and that of other Neurofeedback therapists, with various conditions. In session, we invite the brain into conversation with itself through our external feedback loops. Then, the brain self-corrects. By doing this, the brain learns and changes. Then, so does our experience of being in the world.
Much of this is a skill that just needs to be acquired once. From then on, the brain owns the skill even without continued Neurofeedback sessions. Then life, itself, becomes the reinforcer of good brain function as improved behaviors, moods and thoughts self-perpetuate.
How does training for better brain function help?
Better brain function raises the threshold for symptom expression. This is the case for the degenerative conditions, where brain-training may be able to move a person to the point where symptoms of dementia or Parkinson's may no longer be obtrusive, or they may be significantly reduced. This may also be a way of understanding efficacy for seizure disorder or migraine. The seizure focus remains, and migraine susceptibility may remain as well. But brain stability may have been enhanced to the point where neither occurs any more, or where incidence has been substantially reduced.
Better brain function eliminates the condition in question. This is our model for ADHD, for example, which is characterized behaviorally and for which no organic test exists. Better brain function in the attentional and behavioral realm may mean that the person at issue can no longer be diagnosed with the condition. The essence of ADHD is the disregulation of attentional function and of behavioral inhibition; improving brain function can therefore in principle constitute a categorical remedy.One might make the same argument for garden-variety insomnia, as well as for mild depression and generalized anxiety. PMS is also a case in point. Collectively, these conditions could be referred to as "Disorders of Disregulation," in that brain-based disregulation is believed to be at the core of these conditions. Better brain function improves one's tolerance to certain symptoms. This is the model for chronic pain, for example, where organic deficits have been identified in pain mechanisms. Nevertheless, brain training can allow a person to rise above the pain and to live a productive life even in the context of quite considerable pain.
The same argument could be made for someone who suffers functional disturbances post headtrauma,
or someone who has suffered a stroke or a chemical injury. Brain training can improve function even without impinging upon the organic basis of the deficit.