Multiple Sclerosis and Staying Mobile with Aqua-Therapy

(Consent granted by patient to post these pictures).

Have you ever considered what will happen when you cannot walk anymore or have severe difficulties with mobility? If so, this article on curbing the effects of multiple sclerosis on the nervous system to stay mobile through aqua-therapy treatment is for you.

Lower body mobility is the most concerning factor for Multiple Sclerosis patients, as this is the greatest factor that leads to dependency. Fortunately, studies have shown that with the correct medication and exercise, improvements can be seen.

Multiple Sclerosis

Our nervous system consists of two sections, namely the central nervous system (cns) and peripheral nervous system (pns). The nerves in the pns are insulated with fatty deposits forming a sheath. This sheath is known as myelin. Multiple Sclerosis is known as an auto immune disease where the body's immune system starts attacking itself. In this instance, attacking the myelin sheaths. Now what does this mean… If you think of an electric cable without the plastic insulation, conduction will run intermittently. The same occurs when the "insulation" of the nerves are damaged. Thus, slowing down and creating intermittent conduction of impulses through the nervous system to the muscles.

Multiple Sclerosis progresses by means of "flair ups" or attacks, where increased inflammation is present and leads to symptoms being worsened. It also consists of remission periods, where the attack's symptoms either reverse or merely decrease.

Common Symptoms of Multiple Sclerosis

There is a vast variety of symptoms that can occur in MS patients, extending from loss of balance to muscle weakness or even decreased vision. The most frequently seen symptoms include the following:

- Spasticity
- In-coordination
- Impaired balance
- Fatigue
- Muscle weakness and paralysis
- Sensory loss and numbness
- Altered cardiac responses
- Heat sensitivity

Exercise to relieve the symptoms of Multiple Sclerosis

Studies have shown that both cardiovascular endurance training and strength training increases the cardiac response, fatigue levels and muscle weakness. As mentioned before, mobility is one of the major concerns for MS patients. Thus, increasing the lower body strength and balance, mobility can be improved.

As there are a few points to consider while exercising as an MS patient, it is not advisable to exercise alone, but recommended to do so with a biokineticist. Some of these points are:

- Fatigue levels can alter the intensity levels of exercise.
- Heat sensitivity will affect the intensity of the exercise as well as duration, thus keep a cool environment with a steady breeze.
- Spasticity may require additional assistance.
- Sensory loss may alter upright exercising such as walking.
- Muscle weakness can reduce the intensity of a session.

It has been found that aquatherapy can be greatly beneficial for these patients, as the temperature around the patient will be controlled in a heated pool. Mobility will be easier as the water assists the movements and patients who struggle to walk can walk freely and thus strengthening their muscles. While the resistance of the water can create a good medium for the patient to do strength training in a safe environment.

Fish & Field Biokineticists offer Aqua-Therapy treatment at both our San Sereno and Off Nicol branches.

Further Reading

ACSM's exercise management for persons with chronic diseases and disabilities
Multiple sclerosis journal- MS and physical exercise: recommendations for the application of resistance-, endurance and combined training
Multiple sclerosis journal- Patients perception of bodily functions in multiple sclerosis: gait and visual functions are the most important.