Soft Tissue Therapy and MS
By Joelle Domingue

More than 2.5 million people worldwide suffer from Multiple Sclerosis (MS). While no specific cause or cure has been identified for MS, as therapists we can assist in managing symptoms and enhancing the quality of life for people with MS, says Joelle Domingue. In this article Joelle focuses on how soft tissue therapy can help two specific symptoms of MS: spasticity and fatigue.

Each time we pick up a pen, brush our teeth or make a phone call, we are oblivious to the sophisticated system at work behind the scenes. One of these systems is a structure called the Central Nervous System (CNS). The CNS is the headquarters that allows us smooth co-ordinated movements and essentially makes us independent and functional in a fast-paced world. MS is a disease of the CNS.

MS under the microscope
MS is an inflammatory demyelination condition that causes a range of neurological symptoms within the body. Broken down, this definition outlines a sequence of events during which the body attacks the myelin sheath (the fatty membrane that wraps around nerves) mistaking the myelin for a foreign antigen or invader. This is termed an autoimmune reaction. In effect, this causes inflammation and the break down of the myelin sheath (demyelination) followed by some repair and some scarring (sclerosis). Gradually, more and more scarring occurs in the CNS.

In this process we can see how the name Multiple Sclerosis is derived: Multiple meaning more than one part of the brain or spinal cord can be affected and also more than one attack can be characteristic of this condition; Sclerosis meaning hardening or scarring of the nerve tissue. As a result nerve impulses encounter difficulties as they travel along nerve pathways that have been affected by this process, therefore interfering with the conduction of impulses from the brain to various parts of the body.

Symptoms
If the nerve affected travels to the legs, the patient with MS may experience numbness in the feet or difficulties co-ordinating the legs to move in a smooth manner through locomotion.

Other symptoms include difficulties with:
- spasticity (stiffness)
- fatigue
- pain
- altered sensations (e.g. tingling)
- bladder/bowel function
- vision
- co-ordination and balance
- speech
- tremors
- weakness.

How can we help
Spasticity
When demyelination occurs in the nerves that regulate muscle tone, the result often is stiffness or spasticity. Because there are many nerves in the brain and spinal cord that regulate movement, spasticity is a common problem in MS. Some sources estimate that eighty per cent of people with MS experience some form of spasticity.
For the client, spasticity is ‘an enervating stiffness and contraction of the musculature’ that varies from mild such as an unbending elbow accompanied with resistance and/or jerkiness when moved, to more severe examples that may leave the client immobile.

Massage and soft tissue therapy is thought to work by reducing excessive muscle tone, increasing circulation and nutrition to an area and increasing muscle range of motion. For a MS client suffering with spasticity soft tissue therapy may assist by encouraging muscles to elongate and decompress. In turn this allows a greater freedom of movement, greater flexibility and reduced spasticity.

Stiffness may also result in compacted muscles which is an environment that restricts effective circulation. In this circumstance, soft tissue therapy can be advantageous by enabling adequate nutrition and oxygen to reach contracted muscles and assisting in the removal of waste products. This effect is two-fold: actively promoting circulation while the treatment is being performed and passively relaxing and decompressing muscles, creating a setting that encourages more efficient flow within muscle compartments.

Additionally, improved circulation becomes more vital for those who are significantly affected by immobility; a situation that can substantially compromise the body’s natural circulatory mechanism.

With improved circulation, muscles are fuelled and are at a better starting point to fulfil the demands of daily physical movement. Consequently, endurance and performance may be improved, reducing the signs of poor quality of movement such as the jerkiness that is associated with spasticity.

These benefits may translate into:

- Decreased degree of stiffness and improved quality of movement that enhances the feeling of physical wellbeing.
- Greater mobility, as clients gain a greater ease of movement and ranges.
- Decreased fatigue, as movements and actions require less effort to perform when stiffness is reduced.
- Secondary from the above benefits, some clients may find an improvement in their coordination.
- Decrease in further complications (e.g. contractures, spasms, tremors, problems caused by poor circulation etc.), highlighting a preventative benefit.

**Fatigue**

The most disabling symptom of MS is fatigue, a symptom that is both difficult to describe and measure.

In MS, fatigue may result from the following:

- Repeatedly asking the nerve to perform when it is repeatedly short-circuiting causes fatigue.
- Muscle weakness, atrophy and spasticity. These factors can result in increased energy requirements to carry out common activities of daily living therefore attributing to fatigue. For example, muscle weakness and atrophy may result in other muscles working harder to perform movements as a compensatory response. In the situation of spasticity actions encounter greater resistance to move through ranges of motion, making movements more difficult to perform, both examples having an impact on fatigue.
The daily experience of chronic symptoms such as pain or bowel dysfunction etc, can be overwhelming and draining, and can also contribute to fatigue.

Symptoms such as spasticity, pain and stress can prevent some patients from having a good night’s sleep and may increase fatigue levels.

Another factor to consider is that depression may also be associated with MS and may cause significant fatigue.

Physical benefits of soft tissue therapy
Soft tissue therapy may help indirectly to reduce and manage fatigue. An example includes managing symptoms that may hinder sleep such as spasticity and pain.

Chronically stiff muscles and joints can consequently become painful. By reducing spasticity (as noted above) actions become easier to perform, therefore adding to energy conservation for the client and minimising fatigue. Additionally, if pain is associated with spasticity, pain may also be reduced as a result of the soft tissue treatment. Pain reduction may lead to a greater sense of physical wellbeing and comfort that may open greater opportunity for a good night’s sleep that is less likely to be interrupted. With these benefits in mind, this leaves less room for fatigue to roam and the patient is more likely to feel better and more in control of their symptoms after a good night’s rest.

The emotional benefits of soft tissue therapy
Mental and emotional health may also benefit from relaxation and soft tissue therapy and aid to keep fatigue at bay. This may occur via the management of factors that threaten the energy levels of an individual such as; stress, anxiety and depression. The simple act of touching that occurs with massage may convey positive feelings that are difficult to evaluate rigorously, such as caring, comfort, and acceptance.

A study in 1998 evaluated massage therapy in people with MS. This study followed 24 people with MS who received massage therapy compared to those with MS who did not receive massage therapy. In this study, massage therapy was associated with numerous benefits, including ‘increased self-esteem, improved social functioning and reduced anxiety and depression. In addition, the group that received massage had better images of their bodies and the progression of their disease.’ Collectively soft tissue therapy may have a positive affect on depression, stress and self-esteem, which may indirectly decrease the fatigue levels that are experienced by the client suffering with MS.

In conclusion, whist there is limited literature regarding MS and soft tissue therapy there is much evidence to suggest that symptoms such as spasticity and fatigue may be helped by soft tissue care. The therapist may have an opportunity to play a role in managing and promoting a better quality of life in a natural approach for people who have MS.

Joelle Domingue graduated from RMIT myotherapy in 2002. She is currently working as a myotherapist at the MS Society in Blackburn Victoria and is a sessional teacher in the RMIT myotherapy course in Melbourne.

*Please note the concepts in this article are an overview only. The information presented serves as a guide on how clients with MS can manage their symptoms and gain a better quality of life with soft tissue therapy. If unsure please seek medical advice or refer to an appropriate practitioner.

Notes
2. Halper, 2001, p 117
7. Schapiro, 1998, p 26

References


