

Manual Lymphatic Drainage in Soft Tissue Rehabilitation – Treating Trauma of the Ankle

By Jill Griffiths

Manual lymphatic drainage plays a vital role in the process of soft tissue rehabilitation, writes Jill Griffiths. She adds that it is a valuable and indispensable treatment modality in healthcare practice.

On reviewing the lymphatics, we were astonished by the lack of information that has been generated since the 1600s.

Dressed to Kill, Singer, S., Grismaier, S., 1995.

The role of manual lymphatic drainage treatment in soft tissue dysfunction is still, largely, unknown or undervalued among soft tissue therapists.

Certainly, this is a different treatment method to all other forms of soft tissue therapy, including traditional massage and is described in the words of vascular specialists, Doctors Cavezzi and Michelini, this way:

Manual lymphatic drainage differs to quite a degree from other traditional massage techniques. This is the first point which needs to be made: MLD is a technique based on rules which are not the same as those underlying more general forms of massage.

Phlebolympoedema, From Diagnosis to Treatment, Cavezzi, A., Michelini, S., 1998.

There is no other manual modality that relies on and uses, primarily, a circulatory system in diagnosis. Treatment is applied according to the way the lymphatic system circulation functions, carefully following its natural pathways.

Manual lymphatic drainage exists under the umbrella of a branch of clinical medicine called lymphology. It has been around for a very long time and is a component of a three-phase treatment program known as complex

physical therapy (CPT). The other two treatment components are compression, if and when required, and prescribed exercise. These three components all work to promote optimal lymphatic functioning.

Practised extensively overseas, particularly in European countries, manual lymphatic drainage is highly regarded and reimbursed by insurance.

The lymphatic system

The following gives an overview of the role of the lymphatic system.

A major body system, the lymphatic system is part of the body's circulatory equipment, together with the venous system.

The lymphatic system is a larger system than the venous system, this fact surely indicating that it has an important role in the body's functions: a role worth investigating for all those involved in healthcare practices.

The lymphatic and venous systems are similarly structured. In the case of the lymphatic system, its network of lymph vessels evacuates excess tissue fluids (escaped from the venous system) from the extracellular, soft tissue, environment. The fluids contain discarded product and the lymphatic system is responsible for exchanging and renewing these fluids, cleansing the tissues, and delivering nutrients to the cells.

In this way it maintains the tissue fluid balance which, in turn, maintains the tissue integrity, or tissue health.

(If the lymphatic system didn't act to remove excess protein alone, from the extracellular environment, the body would suffer massive oedema and function complications, resulting in death within 24 to 48 hours). (Guyton, A.C. 1971)

The evacuated tissue fluid is carried by the lymph vessels to the lymph nodes. There

it is filtered and purified, waste products are removed and antigens disabled, after which it is returned to the venous system.

The lymphatic system can be described as a giant detoxification plant, and a part of the immune system apparatus. Its lymph nodes are immune related organs which grow, store and circulate immunocompetent cells via the body fluids.

When the body experiences any trauma that impacts on the soft tissues, this also impacts on the lymphatic system. Therefore, it is important in any traumatic (and inflammatory) soft tissue condition, to take this into consideration during diagnosis and treatment.

According to Canadian osteopath, Frederic Millard:

... it is quite impossible to consider an organic disturbance that does not include a lymphatic change ... In the head and neck alone there are numerous disturbances that reveal lymphatic disorders, when we pause to think of the relations of the lymphatic nodes and channels that become involved through lesions of an osseous nature.

The Anatomy of the Lymphatics, Millard, F.W., 1922.

The techniques

The manual techniques used in treatment are, firstly, anti-inflammatory. They also impact on the nervous system (parasympathetic side) to promote soft tissue relaxation. Together, the anti-inflammatory and relaxation effects work to reabsorb fluid, to soften the tissue, to control pain and to then enable the re-establishment of normal function.

Treatment techniques are very specific in their application. These include a very gentle and controlled touch, specific timing and specific direction of manual manoeuvres, all

working in accordance with the natural operations and circulatory directions of the lymphatic system.

The indications for manual lymphatic drainage are almost limitless.

Used for treatments across a broad range of applications, through beauty, preventive care applications, inflammatory conditions such as sinusitis, headache, bowel disease and sports applications, and including all medical specialties, this is a modality to be taken seriously.

Doctors Cavezzi and Michelini make this comment:

This is not a banal series of easily learned massage techniques. On the contrary, this is a technique which requires a considerable degree of learning and experience on the part of the therapist.

Phlebolymphoedema, From Diagnosis to Therapy.

Because the manoeuvres are gentle, they can be applied to treat very painful and acute conditions without being invasive. Treatment may be applied almost immediately, even after major surgery, if there are no complications/contraindications.

It would be fair to say that, in any situation where oedema is evident (excluding contraindicated situations) manual lymphatic drainage is the ideal soft tissue therapy to apply in the initial stages.

Given the lymphatic system's role described by anatomist William Hunter, early in the nineteenth century as ...'a grand system of absorption'... this is just good sense. Once the oedema is reduced, it is much easier to assess the condition of the involved tissue.

According to Doctors Cavezzi and Michelini:

The cornerstone of the treatment of oedemas caused by venous and lymphatic stasis is without doubt Manual Lymphatic Drainage (MLD) Or Manual Lymph-Drainage.

Phlebolymphoedema, From Diagnosis to Therapy'.

It is not a good idea to use firmly applied techniques on oedematous tissue.

In a study investigating the effect of strong

massage techniques on oedematous tissue, it was found that lymphatic vessels were damaged within minutes of their application. This causes the vessels to collapse and more fluid then builds up in the injured area. 'Are peripheral lymphatics damaged by high pressure manual massage?' Eliska, O., Eliska, A., *Lymphology*, 28 (1995).

All chronic soft tissue problems include an inflammatory content.

The following account demonstrates the effectiveness of manual lymphatic drainage for chronic soft tissue problems and oedemas. The patient, Sandy, presented originally for treatment to his lymphoedematous right leg. At the same time, he had a very dysfunctional left ankle.

Case study

This is Sandy Robertson's story.

My use of MLD treatment began about nine years ago. I was, at six foot, three inches (190.5 cm), inactive and I weighed 175kg.

I awoke one morning extremely ill and was admitted to hospital with cellulitis and lymphatic oedema in my right leg. All the years of cracked, bare feet, combined with broken limbs and football injuries had come home to roost, resulting in massive infection.

I was lucky to survive, my situation being one of touch and go for some time and, after two weeks in hospital, I spent about two months recuperating.

Things improved very slowly, and recurrent bouts of cellulitis, in my lymphoedematous leg, followed. What was I to do?

I read about lymphatic drainage treatment and, notwithstanding my cynicism towards any medical treatment that lay outside the norm of conventional medicine, I decided to give this treatment a try. It was a godsend. I received regular manual lymphatic drainage treatments on my oedematous leg until the swelling subsided. The attacks of cellulitis became fewer in number and, today, are very rare and of short duration.

Meanwhile, my left ankle was severely

swollen and almost set in concrete to a point where it would not move.

This was a legacy of an old operation to repair ligaments damaged in a football match. The ankle was extremely painful on walking and this, combined with my weight, made life a real struggle.

With the promise that one day I would be able to run again, the therapist began to work on my ankle. Today that promise is fulfilled and I have full movement.

So impressed was I by this treatment, I requested it be used for my university aged son who required major surgery to both hips. The MLD treatment addressed the post surgical hip oedema and resulted in much less swelling than otherwise would have been expected. This, I believe, helped speed up his recovery.

Comment

In Sandy's case MLD was the only soft tissue treatment used to address the lymphoedema in his right leg.

Initially this was also the only treatment applied to the chronic problem in his left ankle. The ankle surgery took place approximately twenty years ago, and the ankle was now so oedematous it was not possible to lace a shoe. Sandy experienced a lot of pain on walking and dragged his foot as there was no ankle mobility. This made it impossible for him to exercise.

Early in the treatment program, Sandy began to use a light compression sock. This was used to support the treatment by promoting venous and lymph flow, which helped to soften the tissue. Additionally, we changed his footwear to a good quality, supportive, sports shoe which he even wore during working hours.

Each week, approximately thirty minutes was spent on treating the ankle, first stimulating the actions of the relevant lymph nodes. Excess tissue fluid was then directed away from the injured area, using the lymph vessels to reabsorb it back into the system through the previously cleared lymph nodes.

When the ankle oedema was eliminated, it was possible to assess the true state of the tissue. The tissue had been stretched and its integrity changed, by the fluid pooling in the area over a long period. This caused the tissue to become fibrotic. Additionally, there was surgical scarring with adhesions.

The lymphatic drainage treatments eliminated the oedema around the ankle joint and, with renewed fluids now flowing through the softer and healthier tissue, the ankle movement began to return. This also improved Sandy's pain levels.

Other soft tissue techniques were introduced and used in conjunction with the lymphatic drainage manoeuvres. Treatments began and ended with the anti-inflammatory lymphatic drainage and, with the addition of techniques to address the scarring and

adhesions, we achieved a perfect result.

Sandy was diligent in following all advice and, today, walks with a normal gait rather than a heavy limp. He exercises regularly as his ankle is pain free and completely functional.

Manual lymphatic drainage is a complete treatment in many situations and, in all (indicated) soft tissue treatments, if correctly applied, it should enhance treatment results.

The vital role it plays in the process of soft tissue rehabilitation makes this a valuable and indispensable treatment modality in healthcare practice.



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