



What is the Lymphatic System?

- The lymphatic system is a major body system and the front line in our defense in fighting bodily infections, detoxifying the body and transporting metabolic waste, excess fluid, toxins and bacteria out of the body.

What is MLD?

- MLD is a very specific massage technique (timing, pressure and direction) which helps to ensure our bodies ability to rejuvenate and establish resistance to all types of stress, it encourages the natural circulation of lymph through the body.
- It is not a muscular massage but a harmonious manual treatment using mild mechanical stretching of the connective tissue to facilitate decongestion of lymph ducts.
- This allows regenerative fluid to flow and improves circulation and toxin removal as well as carrying vital substances to areas where it is needed, thus hastening healing times.



What does it do for our clients?

- MLD stimulates the lymphatic system to absorb and transport lymph more effectively.
- It also stimulates the parasympathetic nervous system via the 'relaxation effect', thus inhibiting pain and muscle tonus.
- It assists our clients with detoxification.
- It also assists post surgical node removal by 'retraining' lymph fluid to be directed across physiological boundaries (watersheds) towards functioning lymph nodes.



Importance for Therapists

- MLD is an important modality for any massage therapist to learn and add to their 'bag of tricks'.
- It allows us as therapists to offer an alternative to our clients when regular massage is contraindicated.
- It also provides welcome relief to the therapist reducing the need for physically intensive deep pressure techniques which are harmful to our bodies and careers as massage therapists.
- It allows us to have more 'rhythm' in our work.



Role of Lymphatics

- The lymphatic system is the bodies waste disposal unit, acting as a giant detox plant, mopping up daily toxins.
- It is part of both the circulatory system and the immune system.
- It assists in maintaining our homeostatic fluid volume.
- It picks up excess fluid and protein thus preventing toxic shock.
- Helps to transport immuno competent cells around the body to localise infection.
- Carries food components absorbed from the small intestines to the blood circulation.



What can we use MLD for?

Listed below are a few applications for MLD, there are many others:

- fluid retention
- lymphoedema
- sinusitis/hay fever
- dentistry
- liposculpture
- breast surgery (segmental, simple and total mastectomy)
- neurology – migraines
- pain relief and anti inflammatory
- gastro enterology – constipation and digestive disorders like IBS
- carpel tunnel
- pre and post surgery
- post sporting
- cfs (myelgic encephalomyelitis)/ fibromyalgia
- bruising (inter and intra muscular)
- oedema during pregnancy



Contraindications to MLD

There are some contraindications to MLD.

When in doubt don't treat, get a referral first.

- malignant tumors
- acute viral inflammation
- acute bronchitis
- asthma due to heart problems (related to the vagus nerve)
- chronic bronchitis (if infection is present)
- dvt (deep vein thrombosis)
- arteriosclerosis (possibility of plaque dislodgement)
- undiagnosed abdominal pain
- acute hypotension (extremely low blood pressure)
- hyperthyroidisms (over function of the thyroid)



Brief History of MLD

- Jean Pecquet had previously noted the lymphatic system in animals in 1651, and Pecquet's discovery of the thoracic duct and its entry into the veins made him the first person to describe the correct route of the lymphatic fluid into the blood. Shortly after the publication of Pecquet's a similar discovery of the human lymphatic system was published by Olof Rudbeck in 1653
- There were a number of other practitioners who were also interested in MLD as early as the 19th century. These include, Alexander of Winiwater and Frederick P Millard. In "Applied Anatomy of the Lymphatics", 1922 he used the term 'lymphatic drainage' and suggested different lymphatic drainage techniques to affect the lymphatic flow. Alexis Carrel who won a Nobel prize in 1912 in Physiology/Medicine, also understood that our health depends on lymph circulation.

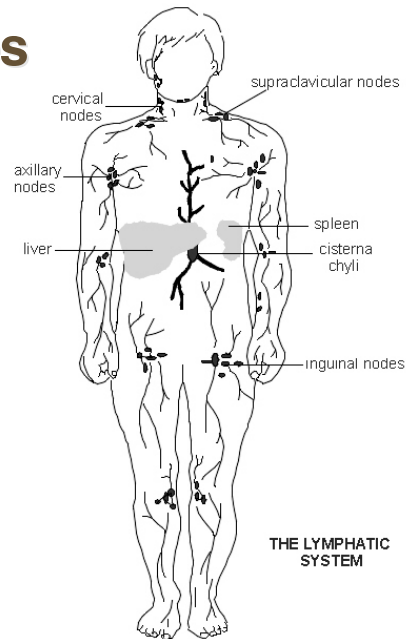


Brief History of MLD (cont.)

- Manual Lymphatic Drainage was used by Dr. Emil Vodder in the 1930s for the treatment of chronic sinusitis and other immune disorders, and is now recognised as a primary tool in Lymphoedema management. However because he was a massage therapist and not yet a GP he had a difficult time getting recognition of his technique.
- There are many styles of MLD which have been developed using a slightly different techniques, but all following the same basic theory and understanding of the lymphatic system.
- In 1967 Johannes Asdoch, a German physician began scientifically testing the MLD technique on over twenty thousand patients and was able to clearly establish its medical benefits, indications and contraindications.
- Bruno Chikly, MD, France was the first to recognise the specific 'rhythm of the lymphatic flow' and teach how to understand it manually through practice and technique.



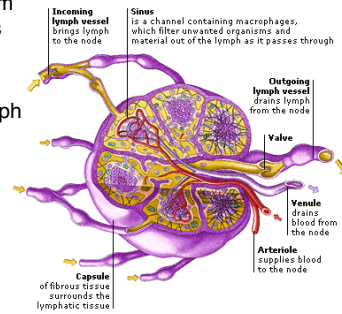
Major nodes locations around the body





Anatomy of a Lymph Node

- all lymph nodes are enclosed in a tough fibrous capsule.
- they occur in clusters in the system and are powerful defense stations that help protect the body from unwanted invaders.
- they filter and clean incoming lymph supplied through afferent vessels.
- they range in size from a pea to an almond!
- they produce immuno competent T and B cells.
- lymphocytes and macrophages engulf toxins and debris to clean the lymph.
- once filtered efferent vessels carry the lymph away towards the heart for return to the venous system through either the left thoracic duct or the right lymphatic duct.



The Lymph Journey

- Lymph fluid starts out as part of the blood stream.
- There is a constant escaping of blood plasma from the venous system which squeezes out into the interstitial spaces to become lymphatic fluid
- It is then collected by the lymphatic capillaries
- Moves into lymphatic vessels
- Moves through lymph nodes (centres of filtration)
- Moves through larger lymph vessels towards the heart
- Collects in the lymph trunks, either the left thoracic duct (75%) or right lymphatic duct (25%)
- Is dumped into the right or left subclavian veins and returned to the heart as part of the circulatory network thus ensuring recovery of this fluid for return to the venous system and begin the journey again.



Things Which Effect the Lymphatic System?

Lymphatic flow can stagnate or stop for many reasons, some of these include:

- fatigue
- stress
- emotional shock
- being overweight
- chemical overloading
- food additives
- toxin accumulation
- sedentry lifestyle (SeDS)
- polycystic ovary syndrome
- graves disease



Specificity of the MLD Application

- In the delivery of MLD the following are particularly important, timing, direction and pressure.
- We must use low pressure as 75% of lymph fluid sits just below the skin above the muscle fascia.
- The deeper lymphatics are harder to locate during the application of MLD, these are usually activated by muscle contractions and deep abdominal breathing.
- Correct sequence is very important to clear pathways (always proximal to distal) and overcome fluid inertia (lymph fluid moves very slowly)
- As quoted by Dr Vodder *“the drainage must be performed softly, harmoniously and rhythmically with supple hands. It is especially important that the wrists remain loose”*.



Specificity of the MLD Application (cont.)

- Always to work proximal to distal. This allows room to be made for fluid flowing from the distal region.
- Stroke duration and speed are very important to effective delivery. *Work Slowly!!*
- About 1.5–2 litres of lymph per day circulate throughout the whole body. According to research efficient activation of lymphatic circulation can increase this figure to 20–30 litres per day!
- Circles are made **WITH** the skin (to facilitate lifting of the anchoring filaments) not **ON** the skin as in regular massage.
- Medium used either arrowroot or cornflour.



Basic Strokes

- The manual maneuvers are very subtle.
- Work is generally performed with the flat of the hand using all the fingers to stimulate aquatic, wave like movements.
- There are four basic strokes:
 - **Stationary Circles** – a circular full hand stroke. There are two types, full circles (used directly over nodes) and three quarter circles (used to direct lymph fluid towards nodes)
 - **Pump Grip** – a milking or pumping style of stroke which utilises a pushing motion.
 - **Scoop Grip** – similar to pump grip but more of a rolling then pushing action done together.
 - **Combination Stroke** – a combination of pump grip and stationary circles using both hands. Used for large flat surfaces such as flanks.



Physiological effects of MLD

- **Nervous system:** MLD stimulates the parasympathetic nervous system, reducing pain by sedating sensory nerve endings. It also has an analgesic/anti inflammatory effect. MLD also relaxes tonic organs and muscles softening tissues.
- **Immune system:** the passage of lymph in the lymph nodes stimulates the immune system. According to research conducted by Bruno Chikly the body produces 30% more immuno competent cells post MLD.
- **Fluid circulation and elimination:** by activating lymph function and circulation there is a reduction of fluid and greater elimination of fluid from the interstitial tissues. This leads to greater tissue health and easier lymphatic flow.



MLD Today

- MLD is widely used throughout Europe and is highly recognised and recommended by the medical institution. Doctors commonly prescribe this treatment and not only is it reimbursed by private health funds but also by European social security.
- Unfortunately MLD is not widely understood or recommended by the Australian medical profession. There may be a number of factors related to this including the small number of practicing qualified therapists and lack of public understanding/education about this therapy.
- The biggest negative that we as therapists have to deal with today is that clients feel that an MLD massage does nothing. This is due to the slow, super light pressure used to execute MLD. Our clients lack the understanding of the physiology of the lymphatic system to understand why it must be performed this way.



MLD Today (cont.)

- Therefore we need to inform and educate our clients.
- In the last two years MLD has gained some ground in surgeries, beauty clinics and medical centres as a relevant and appropriate therapy for many types of illnesses and post surgical treatments.
- From Dr Vodders treatment book: *“to put the effect of MLD in a nutshell, it causes body fluids to flow, removes waste products from connective tissue, rectifies metabolic dysfunction in the interstitium, supports the immune system, balances the nervous system and relieves congestion”*.



Australian Research Findings

- Using both case studies and clinical trials Professor Neil Piller published research findings in *Massage Australia* (issue 53, 2006) in which he presented objective evidence for the beneficial effect of MLD.
- The most relevant findings of the research include the following:
 - MLD is able to facilitate both subjective and objective improvements in Lymphoedema.
 - Patient response was very positive in terms of significant improvements in how a limb effected by lymphoedema feels post MLD.
 - Even a single MLD session is beneficial to the lymphatic system.