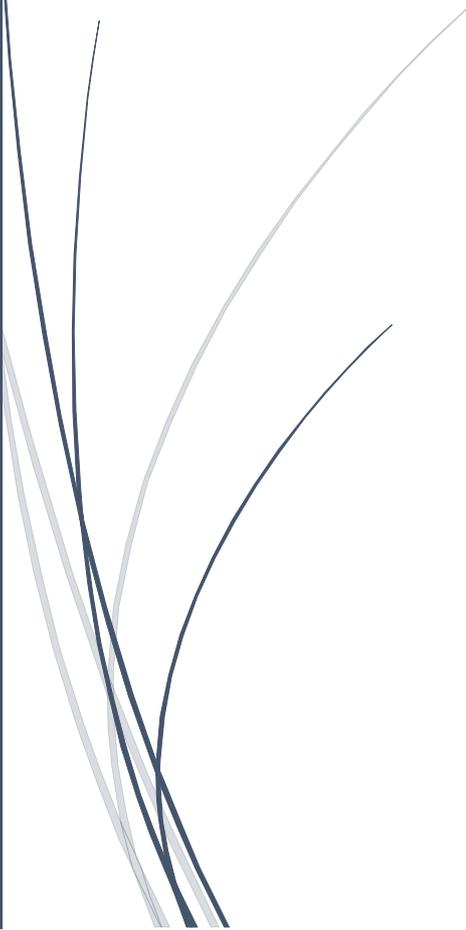




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Face Manual Lymphatic Drainage



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USE ONLY FOR THE “TENGBJERG MASSAGE SCHOOL” COURSE

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Manual Lymphatic Drainage (MLD)

The Greek Hippocrates, the “Father of Medicine” first discovered the lymphatic fluid (lymph), describing it as a “white fluid”. In 1627 Gaspar Aselli discovered the lymphatic vessels.

There are various techniques for MLD including the Vodder, Földi, Leduc or Casley-Smith methods. Most renowned: **The “Vodder” method.**



Manual lymphatic drainage (MLD) was discovered by **Dr. Emil Vodder** in the early 20th century. While working in the French Riviera taking care of his patients with chronic colds, he noticed that they all had swollen lymph nodes. During the 1930s the study of the lymphatic system was taboo, as for the science of medicine it was a field that lacked knowledge. The Vodder couple were not discouraged by this and in 1932 they began to study the lymphatic system, developing gentle hand massage techniques to induce lymph movement. In 1936, after 4 years of study, they presented this technique for the first time in Paris. Since then, they dedicated their lives to spreading and teaching their method.

MLD is about a series of special restoration techniques performed on specific areas of the body, which aims to stimulate the lymph nodes of the human body and facilitate the circulation of lymph fluid until it returns to the bloodstream.

Stimulation is achieved with vibrations and special pressure techniques on the lymph nodes, while the facilitation of lymphatic circulation has an "emptying" form from the periphery to the center of the body and is called lymphatic drainage.

Introduction to the Lymphatic System



The lymphatic system is a subsystem of the circulatory system in the vertebrate body that consists of a complex network of vessels, tissues, and organs.

The lymphatic system has three primary functions. **First of all, it returns excess interstitial fluid to the blood.** Of the fluid that leaves the capillary, about 90 percent is returned. The 10 percent that does not return becomes part of the interstitial fluid that surrounds the tissue cells. Small protein molecules may "leak" through the capillary wall and increase the osmotic pressure of the interstitial fluid. This further inhibits the return of fluid into the capillaries, and fluid tends to accumulate in the tissue spaces. If this continues, blood volume and blood pressure decrease significantly and the volume of tissue fluid increases, which results in oedema (swelling). Lymph capillaries pick up the excess interstitial fluid and proteins and return them to the venous blood. After the fluid enters the lymph capillaries, it is called lymph.

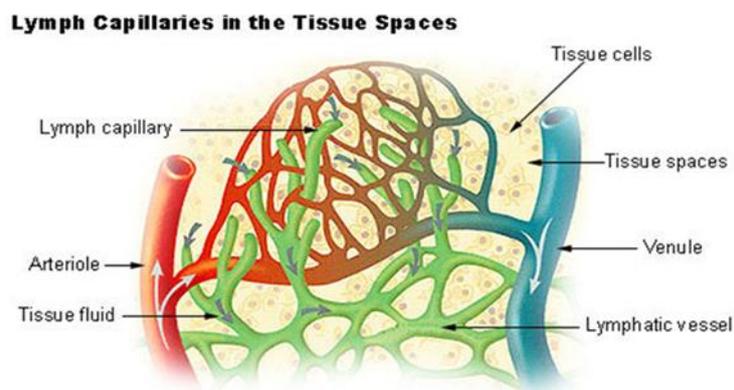
The **second function of the lymphatic system** is the absorption of fats and fat-soluble vitamins from the digestive system and the subsequent transport of these substances to the venous circulation. The mucosa that lines the small intestine is covered with fingerlike projections called villi. There are blood capillaries and special lymph capillaries, called lacteals, in the center of each villus. The blood capillaries absorb most nutrients, but the fats and fat-soluble vitamins are absorbed by the lacteals. The lymph in the lacteals has a milky appearance due to its high fat content and is called chyle.

The third and probably most well-known **function of the lymphatic system** is defense against invading microorganisms. Lymph nodes and other lymphatic organs filter the lymph to remove microorganisms and other foreign particles. Lymphatic organs contain lymphocytes that destroy invading agents.

Anatomy and physiology of the lymphatic system

To understand the action of lymphatic drainage we must first understand the anatomy and physiology of the lymphatic system. **Lymphatic system consists of the:**

- Lymphatic fluid (lymph)
- Lymphatic capillaries
- Lymph ganglia (nodes)
- Lymph vessels



Lymphatic Vessels

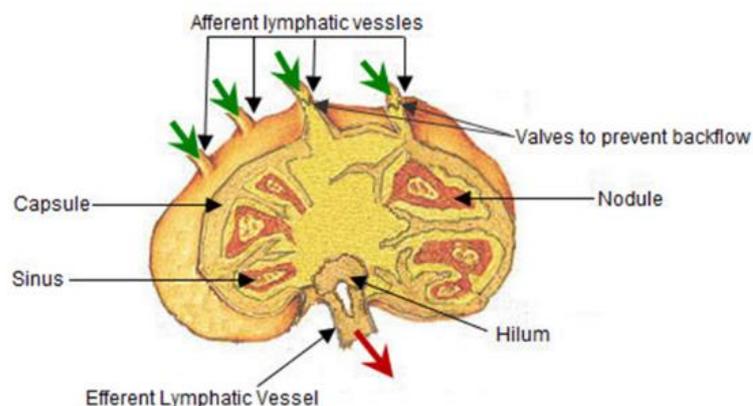
Lymphatic vessels, unlike blood vessels, only carry fluid away from the tissues. The smallest lymphatic vessels are the lymph capillaries, which begin in the tissue spaces as blind-ended sacs. Lymph capillaries are found in all regions of the body except the bone marrow, central nervous system, and tissues, such as the epidermis, that lack blood vessels. The wall of the lymph capillary is composed of endothelium in which the simple squamous cells overlap to form a simple one-way valve. This arrangement permits fluid to enter the capillary but prevents lymph from leaving the vessel. The microscopic lymph capillaries merge to form lymphatic vessels. Small lymphatic vessels join to form larger tributaries, called lymphatic trunks, which drain large regions. Lymphatic trunks merge until the lymph enters the two lymphatic ducts (major & minor). Like veins, the lymphatic tributaries have thin walls and have valves to prevent backflow of blood. There is no pump in the lymphatic system like the heart in the cardiovascular system. The pressure gradients to move lymph through the vessels come from the skeletal muscle action, respiratory movement, and contraction of smooth muscle in vessel walls.

Lymph is a fluid similar in composition to blood plasma. It is derived from blood plasma as fluids pass through capillary walls at the arterial end. As the interstitial fluid begins to accumulate, it is picked up and removed by tiny lymphatic vessels and returned to the blood. As soon as the interstitial fluid enters the lymph capillaries, it is called lymph. Returning the fluid to the blood prevents oedema and helps to maintain normal blood volume and pressure.

The **lymphatic capillaries** are located inside the connective tissue and follow the blood capillaries. Their union creates the lymphatic vessels, which follow the veins and form networks around them. Inside they have valves that prevent the regression (backflow) of the lymphatic fluid to the periphery. In their course, they enter at least in one lymph node from which they then exit.

The **lymph ganglion (node)** is the cleansing station for the lymphatic fluid (lymph). It is a small bean-shaped structure of 1-25mm diameter (normal condition). It has a single abductor lymphatic vessel and more than one afferent lymphatic vessels. It is surrounded by a capsule of fibrous connective tissue. Inside there are lymphocytes which clean the lymph from bacteria, foreign substances and cell debris. Lymph nodes are widely distributed throughout the body along the lymphatic pathways where they filter the lymph before it is returned to the blood.

Lymph Node Structure

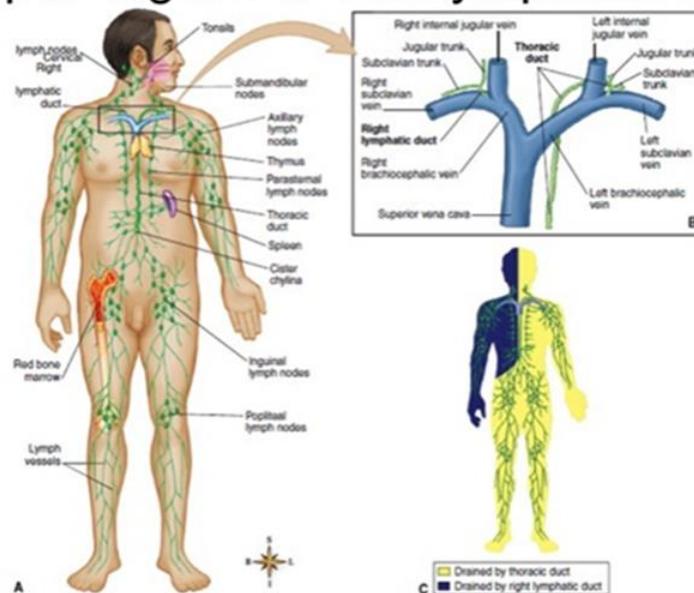


Lymphocytes (lymphatic cells) perform a defensive function in the body. The main lymphocytes are the B-lymphocytes (antibodies production) which are responsible for the chemical immunity of the organism and the T-lymphocytes (proliferation and destruction of a pathogenic cell), which are responsible for cellular immunity. Lymphocytes are produced in the spleen, in the red bone marrow and in the thymus gland until adolescence. They are carried in the blood from the bone marrow to the lymphatic organs. When the body is exposed to microorganisms and other foreign substances, the lymphocytes proliferate

within the lymphatic organs and are sent in the blood to the site of the invasion. This is part of the immune response that attempts to destroy the invading agent.

The lymphatic vessels of the lower extremity, the abdominal wall, the left hemisphere of the thoracic wall, the left lung, the left heart, the left upper extremity, and the left hemisphere of the cervix (neck) and head, eventually terminate in the **major thoracic duct**. The lymphatic vessels of the right hemisphere of the head and neck, the right hemisphere of the thoracic wall, the right heart, the right lung and the convex surface of the liver terminate in the **minor thoracic duct**. The **major thoracic duct** (38-45cm) flows into the left subclavian vein and the **minor thoracic duct** (1-2cm) flows into the right subclavian vein.

Principal Organs of the Lymphatic System



From Patton KT, Thibodeau G: Human body in health & disease, ed 7, St. Louis, 2018, Mosby, Copyright © 2019, Elsevier Inc. All Rights Reserved.

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The lymphatic organs include:

- Lymph Nodes
- Tonsils
- Spleen
- Thymus

The functions of the lymphatic system

- Transport of pathogenic microorganisms and cell debris to the lymph nodes, where they are filtered and destroyed.
- Production of antibodies for the defense of the organism.
- Transport of lymphocytes from the lymph nodes into the circulation.
- Transport of emulsified fats from the intestines to the circulation.
- Return of fluids and proteins from the tissues into the bloodstream.
- Adjusting the balance of body fluids.

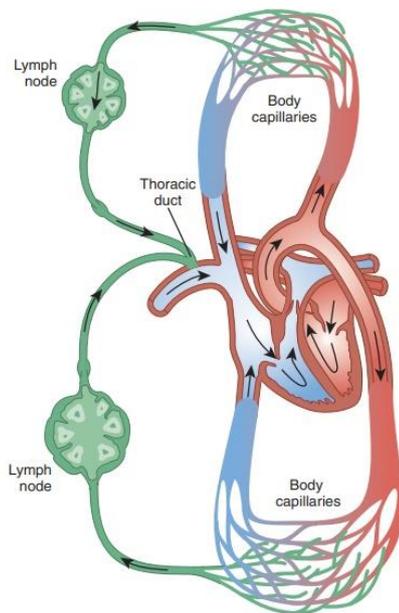


FIGURE The lymphatic system transports fluids through a network of vessels.

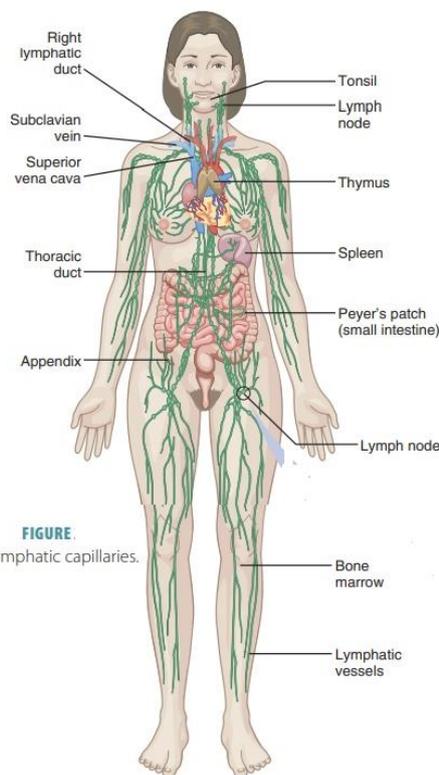


FIGURE. Lymphatic capillaries.

The lymph vessels carry the lymph and absorb various products from the tissues and transport them to the circulation. The lymph is a portion of the interstitial fluid that is absorbed by the lymphatic system. 90% of this fluid consists of dissolved gases, by-products of metabolism and water and is absorbed by the vessels (venous system). **The remaining 10% contains water, cellular "garbage", bacteria, viruses and is absorbed as lymph which is removed from the lymph vessels.**

Lymph insufficiency is the inability of the lymphatic system to remove these toxic substances, resulting in retention in the connective tissue. These stagnant

proteins retain water, which produces oedema. In pathogenic cases is called lymphoedema. Lymphatic “lake” is dangerous for the body since the various pathogens cannot be eliminated through the lymph nodes. In this case, fibrosis occurs and then inflammation.

Manual Lymphatic Drainage MLD



Nowadays, the lymphatic system is responsible for - in addition to the normal tasks of decongesting the body from endogenous toxins - the removal of highly toxic chemicals such as pesticides, chemical fertilizers, pollution, malnutrition, stress, etc. Lymphatic drainage can increase lymph movement by up to 20 times, bringing significant benefits to the body. With this massage, anti-oedematous and detoxifying action is achieved, but also strengthening of the immune system and finally balancing of the nervous system (neurophytic system).

Indications

- Fluid/ water retention.
- Lymphatic and venous oedemas.
- Swelling/ oedemas of the lower extremities.
- Weak immune system.
- Migraine, stress, insomnia.
- Neurological problems.
- Cellulite, topical fat.
- Prevention of wrinkles.
- Prevention of acne.
- Improvement of scars.
- Eye puffiness.
- Improvement of skin texture and color.
- Deep hydration of the skin.
- Skin desensitization.

Contraindications

- Decompensated cardiac insufficiency
- Untreated Congestive heart failure (CHF - cardiac edema)
- Acute inflammation caused by pathogenic germs (bacteria, fungi, viruses)- Acute renal failure -Acute deep venous thrombosis (DVT)
- Malignant lymphedema caused by active cancer
- Renal dysfunction
- Bumps & lumps
- Skin disorders, recent scars
- Infectious diseases, fever, inflammation
- Epilepsy, cancer, AIDS
- Asthma, bronchial asthma, acute flu
- Hyperthyroidism
- Allergies
- Pregnancy – menstruation
- Recent surgery
- Diabetes, hyperlipidemia
- Indefinite pain

FACE LYMPHATIC DRAINAGE



BENEFITS

- Activation of product exchange in cells
- Improve osmosis - oxygen uptake
- Slowing down aging
- Superficial vasoconstriction
- Hydration
- Better skin tone
- Penetrating action of cosmetics
- Muscle relaxation - better mobility
- Toning, rejuvenation, glow, relaxing

Groups of the Superficial Lymph Nodes of the Head & Neck

The superficial lymph nodes of the head and neck receive lymph from the scalp, face and neck. They are arranged in a **ring shape**; extending from underneath the chin, to the posterior aspect of the head. They ultimately drain into the deep lymph nodes.

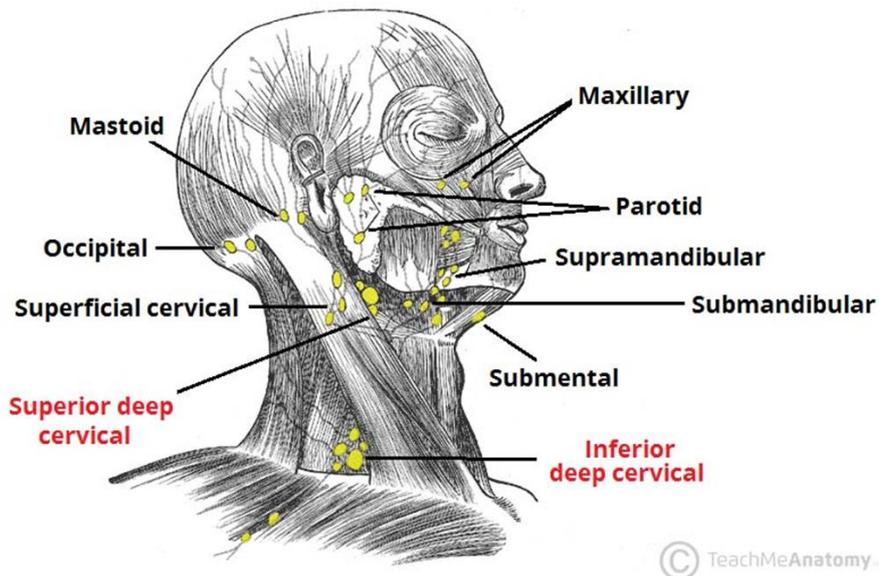


Fig 1: The superficial and deep lymph nodes of the head and neck.

- **Occipital:** There are usually between 1-3 occipital lymph nodes. They are located in the back of the head at the lateral border of the trapezius muscle and collect lymph from the occipital area of the scalp.
- **Mastoid:** There are usually 2 mastoid lymph nodes, which are also called the post-auricular lymph nodes. They are located posterior to the

ear and lie on the insertion of the sternocleidomastoid muscle into the mastoid process. They collect lymph from the posterior neck, upper ear and the back of the external auditory meatus (the ear canal).

- **Pre-auricular:** There are usually between 1-3 pre-auricular lymph nodes. They are located anterior to the auricle of the ear and collect lymph from the superficial areas of the face and temporal region.
- **Parotid:** The parotid lymph nodes are a small group of nodes located superficially to the parotid gland. They collect lymph from the nose, the nasal cavity, the external acoustic meatus, the tympanic cavity and the lateral borders of the orbit. There are also parotid lymph nodes deep to the parotid gland that drain the nasal cavities and the nasopharynx.
- **Submental:** These lymph nodes are located superficially to the mylohyoid muscle. They collect lymph from the central lower lip, the floor of the mouth and the apex of the tongue.
- **Submandibular:** There are usually between 3-6 submandibular nodes. They are located below the mandible in the submandibular triangle and collect lymph from the cheeks, the lateral aspects of the nose, upper lip, lateral parts of the lower lip, gums and the anterior tongue. They also receive lymph from the submental and facial lymph nodes.
- **Facial:** This group comprises the maxillary/infraorbital, buccinator and supramandibular lymph nodes. They collect lymph from the mucous membranes of the nose and cheek, eyelids and conjunctiva.
- **Superficial Cervical:** The superficial cervical lymph nodes can be divided into the superficial anterior cervical nodes and the posterior lateral superficial cervical lymph nodes. The anterior nodes lie close to the anterior jugular vein and collect lymph from the superficial surfaces of the anterior neck. The posterior lateral nodes lie close to the external jugular vein and collect lymph from superficial surfaces of the neck.

Factors affecting lymph flow

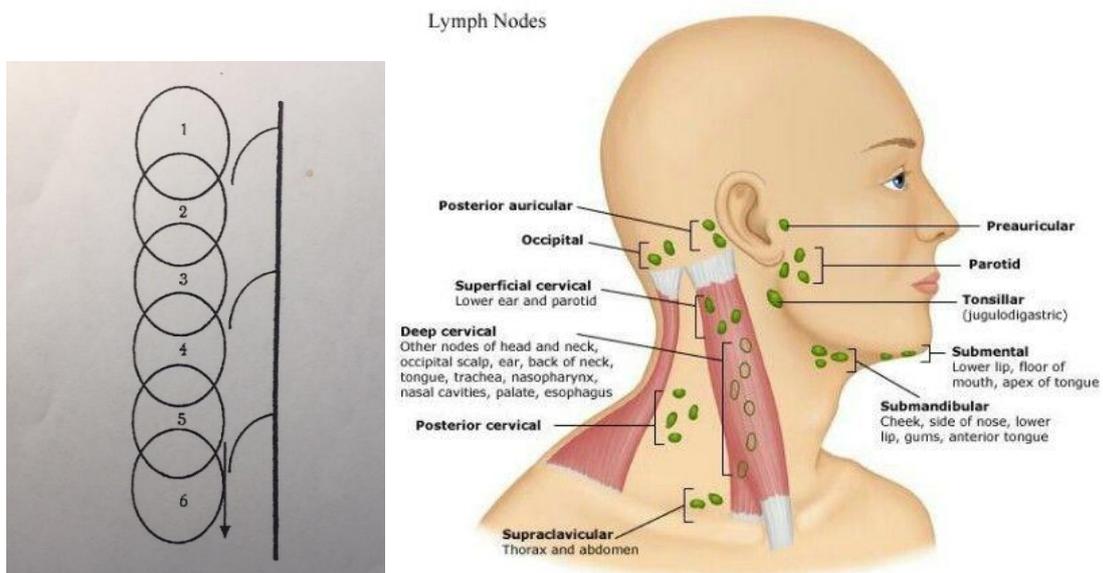
- Immobility, sedentary lifestyle, lack of exercise
- Standing
- Diet, foods that retain water
- Hormonal disorders
- Medicines
- Smoking
- Stress

Principles of manual lymphatic drainage techniques

- **Pressure:** The pressure on the face reaches 2 mm. We make gentle movements to not redden the skin. When we push, we put a little pressure, when we “gather” we do not.
- **Rhythm:** According to the heart rhythm, we work rhythmically like the clock.
- **Direction:** Always to the “sewer” - never backwards.
- **Succession:** There is a sequence of movements.

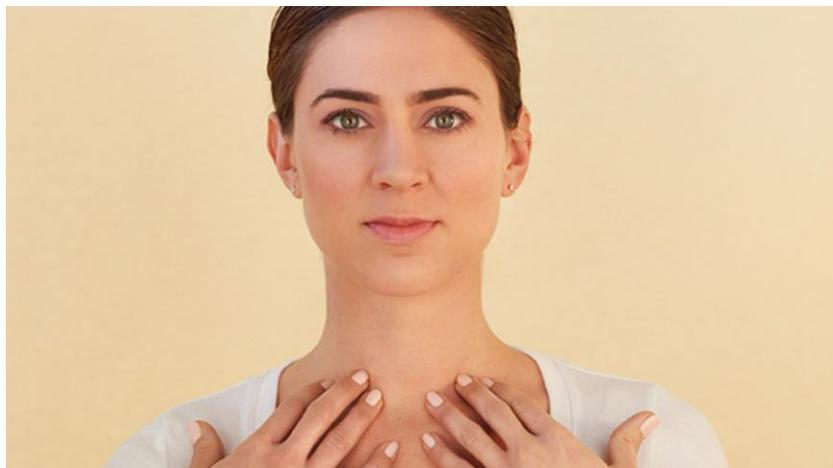
Lymphatic drainage manipulations are applied by forming **circles** on the skin with both fingers (index and middle) and sometimes including the third middle one, too. The **pressure** exerted by the hands on the skin is also set at 30mm Hg. Pressure plays a very important role. If it is less than proper there will be no result, if it is more, negative situations can emerge.

The movements of the lymphatic drainage intend to **drain the lymphatic vessels** (lymphatics) from the inside existing lymph and to expel it to the underlying vessels to facilitate its flow. The empty lymphatics are filled with new lymph, which after passing through the intervening lymph nodes, will take the “removal” route from the body.



In general

- The lymphatic network is a **superficial network**.
- Intends to **stimulate lymph nodes** and increase rhythmic contractions of the lymphatics to enhance their activity so that stagnant lymphatic fluid can be rerouted.
- Performed with the patient **in the lying position**.
- Deep breathing techniques call **diaphragmatic breathing** are usually done at the beginning and end of a therapy session to help open the deep lymphatic pathways. It's not only relaxing, but it helps increase movement of fluid toward the heart. They are combined with light pressure by the therapist's hands which promotes drainage of deep abdominal lymph nodes.
- Use **gentle pressure** when practicing a face lymphatic drainage; 2.5mm (body 4-4.5 mm).
- Lymphatic drainage on the face lasts **30'**.
- We must always **follow the proper route** (lymphatic). If we forget a movement/route I proceed with the next one & never go back!
- I clear the path and then go to clear back and then push forward. Push and back in circular movement with one circle in the previous one.
- MLD is composed of **four main strokes**: stationary circles, scoop technique, pump technique, and rotary technique.
- With MLD we stimulate and mobilize the fluids (lymph, blood). MLD also increases blood flow in deep and superficial veins.
- Toxins from lymphatic massage **drain into the urinary tract**.
- **Treatments:** For decongestion 2-3 /week for 3 weeks, then reduce in 1/week for 1 month- 1.5 total.





Client Consultation Form – Lymphatic Drainage Massage

College Name:
College Number:
Student Name:
Student Number:
Date:

Client Name:
Address:
Profession:
Tel. No: Day
Eve

PERSONAL DETAILS

Age group: Under 20 20–30 30–40 40–50 50–60 60+
Lifestyle: Active Sedentary
Last visit to the doctor:
GP Address:
No. of children (if applicable):
Date of last period (if applicable):

TOTAL CONTRAINDICATIONS (select if/where appropriate):

Fever Cardiac Insufficiency
Contagious or infectious diseases Recent Thrombosis
Under the influence of recreational drugs or alcohol Active Cancer
Diarrhoea and vomiting Medical Oedema
Residual Malaria Undiagnosed lumps and bumps
History of TB Kidney Infections
Undiagnosed pain

CONTRAINDICATIONS REQUIRING MEDICAL PERMISSION – in circumstances where medical permission cannot be obtained clients must give their informed consent in writing prior to treatment. (select if/where appropriate):

Pregnancy Trapped/Pinched nerve
Cardio vascular conditions (thrombosis, phlebitis, hypertension, hypotension, heart conditions) Inflamed nerve
Any condition already being treated by a GP or another complementary practitioner Acute rheumatism
Medical oedema Cancer
Osteoporosis Postural deformities
Arthritis Spastic conditions
Nervous/Psychotic conditions Kidney infections
Epilepsy Whiplash
Recent operations Slipped disc
Diabetes Undiagnosed pain
Asthma When taking prescribed medication
Bells Palsy Gastric ulcers
Hernia

LOCALISED CONTRAINDICATIONS

Varicose veins Hormonal implants
Bruises Recent fractures (minimum three of months)
Abrasions After a heavy meal
Cuts Abdomen (first few days of menstruation)
Sunburn Pregnancy (after medical permission has been obtained, not on the abdomen)
Skin diseases

WRITTEN PERMISSION REQUIRED BY (select if/where appropriate):

GP/Specialist Informed consent
Either of which should be attached to the consultation form.

PERSONAL INFORMATION: (check where appropriate)

Muscular/Skeletal problems: Back Aches/Pain Stiff joints Headaches
Digestive problems: Constipation Bloating Liver/Gall bladder Stomach
Circulation: Heart Blood pressure Fluid retention Tired legs Varicose veins
Cellulite Kidney problems Cold hands and feet
Gynaecological: Irregular periods P.M.T Menopause H.R.T Pill Coil Other
Nervous system: Migraine Tension Stress Depression
Immune system: Prone to infections Sore throats Colds Chest Sinuses
Regular antibiotic/medication taken? Yes No If yes, which ones
Herbal remedies taken? Yes No If yes, which ones
Ability to relax: Good Moderate Poor
Sleep patterns: Good Poor Average No. of hours 1
Do you see natural daylight in your workplace? Yes No
Do you work at a computer? Yes No If yes how many hours 1
Do you eat regular meals? Yes No
Do you eat in a hurry? Yes No
Do you take any food/vitamin supplements? Yes No If yes, which ones
How many portions of each of these items does your diet contain per day?
Fresh fruit: 0 Fresh vegetables: 0 Protein: 0 source?
Dairy produce: 0 Sweet things: 0 Added salt: 0 Added sugar: 0
How many units of these drinks do you consume per day?
Tea: 0 Coffee: 0 Fruit juice: 0 Water: 0 Soft drinks: 0 Others: 0
Do you suffer from food allergies? Yes No Bingeing? Yes No Overeating? Yes No
Do you smoke? No Yes How many per day? 1-5
Do you drink alcohol? No Yes How many units per day? 1
Do you exercise? None Occasional Irregular Regular Types
What is your skin type? Dry Oil Combination Sensitive Dehydrated
Do you suffer/have you suffered from: Dermatitis Acne Eczema Psoriasis
Allergies Hay Fever Asthma Skin cancer
Stress level: 1-10 (10 being the highest)
At work 1 At home 1

Reason for treatment:

Treatment Details:

Client Feedback:

After/Home care advice :

Student's/Therapist's Signature.....

Client's Signature.....

LYMPHATIC DRAINAGE MASSAGE FOLLOW UP SHEET

Treatment Details:

Client Feedback:

After/Home care advice:

Date.....

Tak skal du have! 😊