

LA&HA Doctor's Notes

Dynamic Vacuum Technology

Introduction

Described as "One of the best kept secrets on the health and beauty scene". The realm of modern wellness and holistic health, various therapies and techniques have emerged to promote well-being and address a wide range of health concerns. One such technique gaining popularity is Vacuum Lymphatic Drainage (VLD). VLD is a non-invasive, gentle, and effective method designed to enhance lymphatic circulation, boost the immune system, and alleviate various health issues. As the number of patients undergoing cosmetic procedures continues to increase, there is a need for adjunctive therapies that promote patient recovery which is paramount to improve postoperative outcomes and enhance patient's satisfaction and aesthetic desires.

The Lymphatic System

The lymphatic system is a network of vessels and nodes runs throughout the body, parallel to the circulatory system. The primary role of the lymphatic system is to transport lymph, a clear fluid containing white blood cells, waste products, and cellular debris. Unlike blood, which is pumped by the heart, lymph relies on muscular contractions, deep breathing, and external stimulation for movement.

How does Vacuum Lymphatic Drainage (VLD) work

VLD involves the use of a specialized device that creates a gentle, controlled negative pressure vacuum on the skin's surface. The technology aims to make local external tissue pressure lower than internal tissue pressure and therefore, offers a treatment that a manual therapist's hands alone cannot deliver (6).

The Importance of Lymphatic Health after laser treatment

A well-functioning lymphatic system is crucial for maintaining overall health and wellness. Regional lymphatic drainage is considered as a three-component mechanism, that includes interstitial pathways of non-vascular microcirculation, regional lymphatic vessels and lymph nodes (1) It plays several essential roles in the body, including:

Waste removal:

It carries away cellular waste, toxins, and excess fluid from tissues, preventing swelling and inflammation (2).

This characteristic has high relevance post laser treatment. After laser treatment a common side effect is oedema and erythema. so, patients highly benefit from applying an immediate drainage protocol that can favor a faster healing process.

Immune system support:

The lymphatic system houses lymphocytes and other immune cells, which help combat infections and diseases. (3).

VLD boosts the immune system by supporting the removal of toxins and enhance oxygen delivery to cells while removing metabolic waste products (4).

Fluid balance:

The lymphatic system helps regulate fluid balance in the body, preventing edema (fluid retention), which is a common by-product of hyperthermal laser treatments. Any disruption to this delicate lymphatic system and its equilibrium can result in the development of severe and debilitating lymphedema. Notably this equilibrium is routinely disrupted by surgical procedures, and cosmetic procedures including liposuction, facial surgery, and body contouring (5).

With VLD, a gentle touch encourages fluids away from the affected site, and back towards the lymph nodes for processing.

Pain:

Many patients find that VLD also helps reduce their pain. Pain reduction occurs as circulation increases and swelling goes down. The light touch of VLD triggers a relaxation response in the body and soothes the mind for added pain relief.

Facial skin tightening:

VLD reduces the appearance of wrinkles, fine lines, and loose skin by stimulating collagen production and stimulation of the lymph vessels under the skin. It encourages them to work efficiently and find new pathways to drain away the lymph and waste products. VLD intensely relaxing effect masks the strength of the treatment itself.

IMPORTANT NOTE

Vacuum power should be adjusted for each individual case depending on the volume of the patient's body fat. The practitioner should feel a slight suction while gliding the applicator over the skin. The patient should not feel any pain during the treatment.

Reference:

- 1. **Borodin** lul. [Regional lymphatic drainage and lymphodetoxication]. Morfologiia. 2005;128(4):25-8. Russian. PMID: 16400916.
- 2. **Masson** IF, de Oliveira BD, Machado AF, Farcic TS, Júnior IE, Baldan CS. Manual lymphatic drainage and therapeutic ultrasound in liposuction and lipoabdominoplasty post-operative period. Indian J Plast Surg. 2014 Jan;47(1):70-6. doi: 10.4103/0970-0358.129627. PMID: 24987208; PMCID: PMC4075221.
- 3. **Petrova** TV, Koh GY. Biological functions of lymphatic vessels. Science. 2020 Jul 10;369(6500):eaax4063. doi: 10.1126/science.aax4063. PMID: 32646971.
- 4. **Bautch VL**, Caron KM. Blood and lymphatic vessel formation. Cold Spring Harb Perspect Biol. 2015 Mar 2;7(3):a008268. doi: 10.1101/cshperspect.a008268. PMID: 25731762; PMCID: PMC4355271.
- 5. **Marxen T**, Shauly O, Goel P, Tsan T, Faria R, Gould DJ. The Utility of Lymphatic Massage in Cosmetic Procedures. Aesthet Surg J Open Forum. 2023 Feb 28;5:ojad023. doi: 10.1093/asjof/ojad023. PMID: 36998743; PMCID: PMC10045879.
- 6. **Frederick Hulme Got**, Kathleen Ly, Neil Piller and Andrea Mangion. "Negative pressure therapy in the management of lymphoedema". Journal of Lymphoedema, 2018, Vol 13, No 1.

Vacuum Therapy Of The Abdomen

Recommended DVT settings: HP= BodyM

Upper vacuum	34-44 %	1 s
Lower vacuum	24-32 %	0,3 s

1. Start the abdominal treatment by gliding the vacuum applicators from the lower abdomen parts toward more distant regions. Apply several strokes to cover the entire abdominal surface. Finish with strokes directed towards the cisterna chyli.

Repeat every pass 3x.



2. Create 3 circular motions around the navel starting with a circle originating from the navel and expanding outwards.

Repeat every circle 3x.



3. Proceed along the ascending colon, moving toward the transverse colon and conclude at the descending colon.



4. Drain from the distal and lower parts of the abdomen in multiple lines toward the navel.

Repeat 3x.



5. From the distal part of the abdomen, drain in a snake-like motion towards the navel.

Repeat 3x.



6. Drain from the upper and lower parts of the abdomen in multiple lines toward the navel.



7. Repeat step 2.



8. Glide in multiple lines from the navel towards the cisterna chyli.



Vacuum Therapy Of The Buttocks

Recommended DVT settings:

HP= BodyM

Upper vacuum	30-40 %	1 s
Lower vacuum	15-20 %	0,3 s

1. Begin with strokes from the central part of the buttocks outward.

Repeat 3x.



2. Continue with gliding from the central part of the buttocks toward the outer areas and from the central part toward the inner buttocks.

Repeat 3x.



3. Right below the buttocks glide from the center towards the inner part of the thigh and from the center towards the outer part of the thigh.



Vacuum Therapy Of The Face

Recommended DVT settings: HP= FaceS or FaceXS

Upper vacuum	18-24 %	0,6 s
Lower vacuum	10-12 %	0,2 s

1. The lymphatic drainage procedure for the face, neck and décolleté starts from the preauricular nodes (positioned in front of the ear) to the external jugular nodes on the neck, leading to the supraclavicular nodes (right above the clavicle).

Repeat 3x.



2. The next step starts at the center of the chin from the submental lymph nodes. Smoothly glide along the lower jaw arch toward the ear (preauricular nodes) and continue to the neck and the supraclavicular nodes.

Repeat 3x.



3. Start from the lower lip under the cheekbone to the preauricular lymph nodes and then to the external jugular lymph nodes leading to the supraclavicular lymph nodes.



4. Continue from the upper lip, follow the vermillion border, and then continue along the cheek to the preauricular lymph node. Continue to the external jugular nodes to the supraclavicular node.

Repeat 3x.



5. To address the perioral wrinkles, perform a massage along each wrinkle line 3x. Start below the chin and continue over the upper lip and on the nasolabial folds.

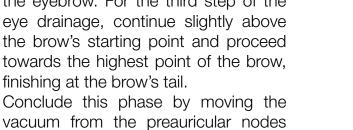
Repeat 3x.



6. Slide along the cheek in a line from the bottom of the nose to the preauricular l.n. Move upward along the nose and make several lines from the nose to the ear. Treat the entire cheek. Finish each stroke at the preauricular area. Repeat this 3x. Finish treating this step sliding the vacuum along the neck towards the supraclavicular l.n.



7. Begin the treatment of the eyelids by focusing first on the lower eyelid, moving from the inner corner towards the outer edge of the eyelid. Next proceed with the upper eyelid. Glide the vacuum handpiece from the inner corner of the eyelid to the outer corner, just below the eyebrow. For the third step of the eye drainage, continue slightly above the brow's starting point and proceed towards the highest point of the brow, finishing at the brow's tail.



Repeat 3x.

8. Perform several passes (3-6) from the center of the forehead to the external I.n. Conclude this phase by moving from the preauricular nodes to the supraclavicular I.n.

towards the supraclavicular.

- 1. Repeat 3x-6x.
- 2. Repeat 3x.

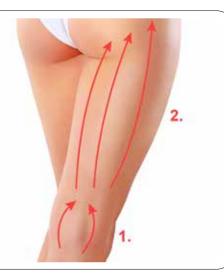


Vacuum Therapy Of The Posterior Thigh

Recommended DVT settings: HP= BodyM or BodyS

Upper vacuum	30-36 %	1 s
Lower vacuum	17-20 %	0,3 s

1. Begin the movement on the back of the thigh at the poplitea with three short slides towards the thigh.



2. Pull from the lower part of the thigh towards the upper part.

Repeat 3x.



3. Massage the back of the thigh by applying strokes from the central area of the thigh towards the inner and outer side of the thigh. Start this process at the lower part of the thigh and continue towards the upper regions of the thigh.



4. Continue with sliding from the knee area toward the buttocks. Cover the entire surface of the back of the thigh.

Repeat 3x.



5. Repeat step 2.

Repeat 3x.



6. Repeat step 3.



Vacuum Therapy Of The Anterior Thigh

Recommended DVT settings: HP= BodyM or BodyS

Upper vacuum	30-36 %	1 s
Lower vacuum	17-20 %	0,3 s

1. Start with short glides from the upper thigh towards the inguinal area.

Repeat 3x.



2. Continue with three transverse pulls, starting from the outer part of the thigh towards the inner part of the thigh.

Repeat 3x.



3. Continue with pulls from the middle of the thigh upwards.



4. Proceed with vertical pulls from the knee towards the inguinal area. Treat the entire surface of the thigh.

Repeat 3x.



5. Begin the next step with a short vertical pull on each side of the knee. Continue with transverse pulls, starting from the outer part of the thigh, towards inner (and upper) parts of the thigh. We treat the entire surface of the thigh.

Repeat 3x.



6. Repeat step 4.



7. Continue just above the knee with horizontal pulls from the outer part of the thigh towards the inner part of the thigh. Treat the entire surface of the thigh.

Repeat 3x.



8. Continue with short slides from upper thigh towards the inguinal area.

Repeat 3x.



9. Repeat step 4.

