

Information

for Patients with
Lymphedema of the Leg



Center for excellence in lymphedema treatment
Lymphedema rehabilitation center - Treatment
Academy - Training - Research



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Contents

1. What is Lymphedema?	Page 4
2. How does Lymphedema of the Legs Develop? Can it Worsen?	Page 5
3. How to Identify the Onset of Edema	Page 7
4. Therapy of Leg Lymphedema	Page 8
5. Dietary Measures	Page 9
6. Precautionary Measures	Page 10
7. Exercises	Page 12
8. Breathing Exercises	Page 13
9. Important Addresses and Recommended Reading	Page 14

1. What is Lymphedema?

LYMPHEDEMA

Is a lymphatic congestion in the tissue

LYMPH FLUID

Is formed daily in varying quantities by biochemical interaction

LYMPH OBLIGATORY LOAD

Is excess fluid in the tissue to be drained by the lymphatic vessels every day. It consists of: fluid (water load) + plasma proteins (protein load) + non-mobile cells (cell load) + foreign substances + long-chain fatty acids (fat load)

2. How does Lymphedema of the Legs Develop? Can it Worsen?

In principle, edemas may be classified in different groups depending on their root causes. In this leaflet we describe two frequently occurring forms of leg lymphedema.

A) PRIMARY LYMPHEDEMA OF THE LEGS

This form of lymphedema is due to congenital dysfunction of the lymphatic system, which causes lymphedema in the legs, frequently beginning in the peripheral region. Foot and lower leg begin to swell. If this swelling remains untreated, not only will do the foot and lower leg, but the entire leg as well will become edematous.

Since patients become aware of their illness only when the foot begins to swell, it is not possible for them to apply the precautions listed on page 10.

Primary lymphedema may manifest itself as early as birth, but it may also develop only years later. Swelling of the limb(s) generally begins after the onset of puberty. It is virtually impossible to diagnose congenital lymphatic system dysfunction without the presence of edema.

B) SECONDARY LYMPHEDEMA OF THE LEGS

Its root causes are:

- surgical transection of the lymphatic pathways
- removal of lymph nodes in the groin and/or in the pelvis minor
- traumatic injury of the lymphatic pathways of the legs caused by bone fracture or heavy blow to the upper leg, etc.
- radiation therapy in the inguinal, lower abdominal or lower lumbar spinal region
- inflammation of the lymphatic or blood circulatory pathways in the legs or the pelvis minor.

This will result in leg lymphedema, frequently starting centrally. It will extend across the entire leg fairly rapidly.

If the limb in question indicates a predisposition to development of lymphedema, but is not yet swollen, the affected limb (leg) is in a state of “edemic readiness”. It is absolutely necessary for the patient to take the precautions listed in Chapter 6 in this stage.

Although lymphedema of the leg and/or trunk after abdominal surgery is not life-threatening, it is according to Stillwell “...often the source of considerable physical and mental discomfort and occasionally even disabling!” (quote)

If left untreated, lymphedema tends to worsen.

3. How to Identify the Onset of Edema

PRIMARY LYMPHEDEAM OF THE LEG

Initially, the patient will see signs of swelling on the back of the foot right before the toes. Swelling may disappear overnight. But it will recur owing to the force of gravity on the circulatory system, i.e. standing and sitting (which causes the lower legs to be in a vertical position for more than half of the day).

At this stage, the edema does not disappear overnight and will gradually spread in the direction of the upper thigh.

SECONDARY LYMPHEDEMA

Initially, the patient may feel a twinge in the groin and the inner side of the upper thigh(s). Again this feeling of distension may improve overnight until elevating the legs to a horizontal position no longer suffices to eliminate this sensation of distension (twinge).

Gradually, the swelling of the leg will increase in the direction of the extremities (i.e. towards the toes).

Whenever such changes are observed, patients need to consult their attending physicians immediately!

In order to prevent edema from progressing any further, decongestive treatment should be initiated as soon as possible.

4. Therapy of Leg Lymphedema

It includes:

- Dr. Vodder's method of manual lymph drainage (MLD)
- appropriate bandaging
- decongestive, remedial exercises including breathing exercises
- skin care ointments

This therapy package is called **Combined Decongestive Therapy (CDT)** or "**physical edema therapy**".

Only a combination of the above therapy options will successfully treat an existing edema.

In such cases it is indispensable that patients be given MLD therapy sessions of 45 minutes or more. Subsequent bandaging will maintain and improve decongestion achieved by MLD.

5. Dietary Measures in Lymphedema

Nutrition and proper metabolic state are important factors in successful edema therapy.

First and foremost, patients need to take sufficient quantities of fluid. They should drink up to two liters of “empty” liquid, i.e. **water**. **Herbal teas**, too, can be used to meet fluid intake requirements.

The second most important measure is **reduction of salt intake** as sodium (salt) binds water in the body. Patients should be aware of hidden salt in cheeses, meat dishes, etc.

Moreover, a **low-calorie diet** is recommended for overweight patients, who are advised to reduce their intake of meats.

For guidance in correct nutrition following surgery of abdominal cancer we refer you to the recommendations of the Austrian Society for Oncology (ÖGO). For address see Page 15.

6. Precautionary Measures

for patients with or without leg lymphedema following lower abdominal therapy (operation / radiation)

1. AT WORK AND IN THE HOUSEHOLD

- Avoid injury, overexertion, heat or chill
- When cooking avoid the risks of injury posed by scalding hot water or steam
- Wear slacks or long trousers when working at a hot stove or oven
- Avoid standing for longer periods of time at work or in the household
- Always wear compression stockings whenever you are working in the household or in the workplace

2. CLOTHING

- When choosing undergarments, always select briefs or panties without tight elastics around the abdomen or legs
- Do not wear tight-fitting knee socks
- Select shoes two or three sizes larger than usual so that the bandaged foot fits easily into the shoe
- Do not wear any tight-fitting belts or cinches

3. BEAUTY AND BODY CARE

- Scrupulous cleanliness – thorough skincare routine
- When giving yourself a pedicure, do not cut nail folds; be careful when filing your nails; do not push back or cut the cuticle
- Do not use irritating, allergenic cosmetics
- When at the sauna, avoid steam and infusion sessions
- Be careful when sunbathing, do not expose the affected limb to the sun
- Any massage of the affected leg must avoid kneading

4. GARDENING

- Avoid injury (spines, thorns, equipment)
- Wear slacks or long trousers for gardening

5. PETS OR ANIMAL HUSBANDRY

- Every effort must be made to avoid bites or scratches on the swollen leg

6. SPORTS

- Avoid overexerting yourself
- Avoid chilblains and frost bites
- Avoid injuries (swimming, however, is part of the treatment regime)

7. DIET

- Maintain your target weight
- Eat a balanced diet (meat, vegetables, fresh fruit)
- Reduce your intake of table salt

8. DURING THE DAY

- Follow the special exercises with compression stocking
- Wear the stocking prescribed by your doctor

9. DURING NIGHT REST

- Elevate edematous leg

10. HOLIDAY PLANNING

- Avoid insect-infested areas

11. AT THE DOCTOR'S

- Do not allow injections (in your skin, muscles, veins or joints) on the operated/swollen side
- No injections into operation scar
- Blood samples must not be taken on the operated/swollen side

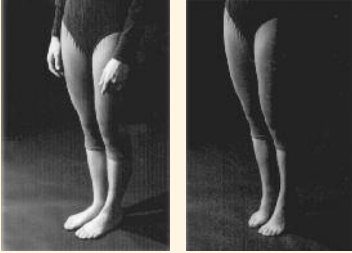
12. CONSULT YOUR DOCTOR IMMEDIATELY

- If there is an inflammation of the edematous leg (fever, redness, chills and fever)

7. Exercises

Repeat each exercise ten times. If required, have short breaks or breathing exercises in between.

INITIAL POSITION – STAND UPRIGHT



Roll feet from toe to heel.

INITIAL POSITION – STAND UPRIGHT



Stork walk – lift knees alternatingly towards breast up to a hip flexion of no more than 90 degrees. Stretch toes while lifting knees.

SIT WITH LEGS OUTSTRETCHED IN FRONT OF YOU



Now bend leg keeping sole of your foot on the mat and touch mat alternatingly with heel and toes. Change leg.

SUPINE POSITION



Both legs are bent with soles of the feet on the mat; raise head and right shoulder and stretch both arms across left knee; Change side. Alternative: raise trunk and stretch arms, positioning your hands to the left and right of your knees. Now press both knees out against the resistance of your hands. Place hands in between your knees. Now press both knees in against the resistance of your hands. Keep each position for seven seconds.

8. Breathing Exercises

LATERAL POSITION

Lie down on your left side, with your bottom leg stretched and your upper right leg bent. The knee of the leg on top should touch



the mat. Now rotate your upper body backwards, while keeping your right knee on the mat. Now raise your right arm (the one on top) and – unless this is painful – place it along the right side of your head. If this position is painful, support your arm by placing cushion(s) underneath it. Remain in this position for about ten minutes and focus on your breathing. Afterwards lie on your back and feel the flow of your breath (for another five minutes approximately). Now change sides.

SUPINE POSITION

Lie supine and outstretched on the floor (mat) with a cushion under your head. Now move both legs to the left as far as the joints permit, while your buttocks remains flat on the floor. Now move your trunk to the left as well. Be careful that your shoulder blades rest



flat on the floor throughout this exercise. Now tilt your head to the left without turning your nose sideward. Your nose should point to the ceiling. Place your right arm alongside your right ear. If this position is painful, support your arm with one or more cushion(s). Keep this position for about five minutes, then return slowly to the starting position and feel the flow of your breath. Then change sides.

We recommend the following relaxation CD to accompany your breathing exercises:
Ethic Records, "Toscana Magic", CD 191101

9. Important Addresses and Recommended Reading

RECOMMENDED READING

- *Aktive Krebstherapie und Vollwertkost*
Axel Meyer, Dr. Peter Wolf, Cordula Bruch
Taoasis Publishers
ISBN 3-926014-13-X
- *Prognose Hoffnung: Liebe, Medizin+Wunder*
Dr. Bernie Siegel
Ullstein Publishers
ISBN 10 3548364047
ISBN 13 9783548364049

ADDRESSES

- Wittlinger Lymphedema Clinic
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providing out-patient therapies in the areas of physical medicine and
neurological rehabilitation
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Tel. 0043 5374/5245-0
www.wittlinger-therapiezentrum.com
- *Gesellschaft für Manuelle Lymphdrainage nach Dr. Vodder und
sonstige Lymphologische Therapien* (Association of Dr. Vodder's
Manual Lymph Drainage and Other Lymphatic Therapies)
Alleestraße 30, 6344 Walchsee
Tel. 0043 5374/5245-0
www.gfmlv.at
- *Österreichische Lymph-Liga* (Austrian lymphedema league)
P.O.Box 41, 2560 Berndorf
Tel. 0043 2672/84473
www.lymphoedem.at
- *Österreichische Krebshilfe – Krebsgesellschaft*
(Austrian cancer society)
Tuchlauben 19/10, 1010 Vienna
Tel. 0043 1/7966450
www.krebshilfe.net
- *Lymph Netzwerk* (German lymphedema network)
Usingerstraße 42, 61231 Bad Nauheim
www.lymphnetzwerk.de
- *Österreichische Gesellschaft für Onkologie*
(Austrian society for oncology)
Sofienalpenstraße 17, 1140 Vienna
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