## Information

## for Patients with Lymphedema of the Arm







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



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## 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 Arm Develop? Can it Worsen?

The standard therapy of breast cancer is partial or total mastectomy including partial or total removal or radiation of axillary lymph nodes.

For between 25% and 50% of all patients these interventions result in "secondary lymphedema of the arm(s)" and/or "secondary edema of the thorax".

Anatomy of and damage to the lymphatic system provide an explanation of the varying clinical course of lymphedema following breast cancer surgery and radiation therapy. Extirpation of the axillary lymph node stations interrupts the superficial and deep-lying lymph drainage routes of the equilateral arm or equilateral half of the thorax. Hence the operated side is prone to develop lymphedema or may develop edema immediately after surgery.

Although lymphedema of the arm or thorax after breast cancer surgery may not be life-threatening, it is according to Stillwell "... often the source of considerable physical and mental discomfort and occasionally even disabling!"

If left untreated, lymphedema tends to worsen.

## 3. How to Identify the Onset of Edema

Initially, the patient may feel a twinge at the inner side of the upper arm. The arm may become thicker.

In most cases this "thickening" of the arm will start near the trunk and progress peripherally, i.e. in the direction of the finger tips. Frequently patients fail to realize this, as they cannot take comparative measurements. In some cases, swelling disappears overnight and recurs during the day. Occasionally the arm becomes thicker from the finger tips upwards. Patients register this immediately as, due to the swelling of the fingers, rings seemingly overnight no longer fit, etc. Whenever such changes are observed, patients need to consult their attending physicians immediately. At the same time patients should think about whether this tendency to swelling may be associated with external changes.

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

## 4. Therapy of Arm 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 breast cancer surgery we refer you to the recommendations of the Austrian Society for Oncology (ÖGO). For address see Page 15.

## 6. Precautionary Measures

for patients following breast cancer therapy (operation / radiation) with or without having developed lymphedema of the arm

#### 1. AT WORK AND IN THE HOUSEHOLD

- Avoid injury, overexertion, heat or chill
- Be careful when handling knives
- Be careful when sewing (use a thimble)
- Do not use hot water for dish washing
- Do not touch the surface of a hot stove or oven without oven mitts
- · If cleaning windows do not raise the affected arm
- Do not carry heavy shopping bags
- Be careful when ironing
- Take care not to hold cigarette in the hand of the affected arm
- · Do not wear a wristwatch on your swollen limb
- Always put on arm stocking and/or rubber gloves when doing housework

#### 2. CLOTHING

- Bra straps must not cut into skin, neither at the shoulders nor across the ribcage
- Wear a very light breast form.

#### 3. BEAUTY AND BODY CARE

- Scrupulous cleanliness thorough skincare routine
- · When giving yourself a manicure, do not cut nail fold
- 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 arm must avoid kneading

#### 4. AT THE HAIRDRESSER'S

• Protect shoulder and arm from heat of the dryer hood

#### **5. GARDENING**

• Avoid injury (spines, thorns, equipment)

#### 6. PETS OR ANIMAL HUSBANDRY

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

#### 7. SPORTS

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

#### 8. DIET

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

#### 9. DURING THE DAY

- Follow the special exercises with arm stocking
- Wear the arm stocking prescribed by your doctor
- Keep edematous limb elevated (whenever possible)

#### **10. HOLIDAY PLANNING**

• Avoid insect-infested areas

#### 11. AT THE DOCTOR'S

- Do not have your blood pressure taken on the operated/swollen side of your body
- 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
- No acupuncture treatment, no healing anesthesia on operated/swollen side

#### 12. CONSULT YOUR DOCTOR IMMEDIATELY

• If there is an inflammation of the edematous arm (fever, redness, chills and fever)

## 7. Exercises

#### **INITIAL POSITION - SIT UPRIGHT**





Raise and lower your shoulders, rotate them forward and backward.

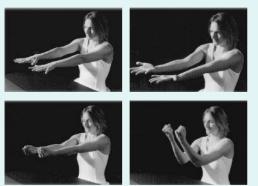




Raise your outstretched arms at an angle of 90 degrees, while keeping your fingers spread and extended with palms facing down. Rotate your arms so that palms face up and then rotate them back again with palms facing down. Do this exercise against imaginary resistance.



Raise arms laterally with your elbows slightly bent. Press palms together in front of your body for seven seconds, then try to pull clasped hands apart for another seven seconds.



Raise your outstretched arms up to an angle of 90 degrees, with fingers spread and extended. Close hands, tensing your muscles against imaginary resistance to form a fist, then rotate your lower arms, while bending your elbows against imaginary resistance. Now stretch your arms and spread your fingers against imaginary resistance back to the starting position. When bending, be careful that your elbows are not bent more than 80 degrees.





Place your forearms and the palms of your hands on a table, then slowly raise and lower the back of your hands against an imaginary resistance. Press your palms against the table. Do not fully raise the back of your hands, i.e. not as far as possible.



Place your forearms on a table and rotate your hands against imaginary resistance.



Place your forearms on a table with fingers spread and extended, then slowly form a fist; then spread and extend your fingers again.

## 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 special clinic for examining and treating lymphedema patients and providing out-patient therapies in the areas of physical medicine and neurological rehabilitation Alleestraße 30, 6344 Walchsee Tel. 0043 5374/5245-0 www.wittlinger-therapiezentrum.com
- Gesellschaft f
  ür 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 Tel. 0043 1/9792860 www.oego.or.at

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