

LYMPHEDEMA (LYMPHATIC OBSTRUCTION)

What is Lymphedema?

Lymphatic obstruction is a blockage of the lymph vessels that drain fluid from tissues throughout the body and allow immune cells to travel where they are needed. Lymphatic obstruction may cause lymphedema, which means swelling due to a blockage of the lymph passages.

How do you get Lymphedema?

The most common reason for lymphatic obstruction is the removal or enlargement of the lymph nodes.

Causes of lymphatic obstruction include:

- Infections with parasites such as filariasis
- Injury
- Radiation therapy
- Skin infections such as cellulitis (more common in obese patients)
- Surgery
- Tumours

In Western societies, one of the most common causes of lymphedema is removal of the breast (mastectomy) and underarm lymph tissue for breast cancer. This causes lymphedema of the arm in 10 - 15% of patients, because the lymphatic drainage of the arm passes through the armpit (axilla).

Rare forms of lymphedema that are present from birth (congenital) may result from problems in the development of the lymphatic vessels.

What are the signs and symptoms?

The main symptom is persistent (chronic) swelling, usually of the arm or leg.

How do you know if you've got Lymphedema?

The doctor will perform a physical exam and ask questions about your medical history.

The following tests may be done:

- CT or MRI scan
- Lymphangiography
- Lymphoscintigraphy

How is Lymphedema treated?

Treatment for lymphedema includes:

- Compression (usually with multilayered bandages)
- Manual lymph drainage (MLD)
- Range of motion exercises

Manual lymph drainage is a light massage therapy technique in which the skin is moved in certain directions based on the structure of the lymphatic system. This helps the lymph fluid drain through the proper channels.

Treatment also includes skin care to prevent injuries, infection, and skin breakdown, as well as light exercise and movement programs. Exercise should be carefully designed by a physical therapist. It should help drainage without leading to swelling, which could make your condition worse.

Wearing compression stockings on the affected area or using a pneumatic compression pump on and off may be helpful. Your doctor and physical therapist will decide which compression methods are best.

Surgery is used in some cases, but it has limited success. The surgeon must have a lot of experience with this type of procedure. You will still need physical therapy after surgery to reduce lymphedema.

Types of surgery include:

- Liposuction
- Removal of abnormal lymphatic tissue

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- Transplant of normal lymphatic tissues to areas with abnormal lymphatic drainage (less common)

Rarely, the surgeon will bypass abnormal lymph tissue using vein grafts. These procedures are not usually successful and are often done experimentally.

Lymphedema is a chronic disease that usually requires lifelong management. In some cases, lymphedema improves with time. However, some swelling is usually permanent.

Are there any complications if it's not treated?

In addition to swelling, the most common complications include:

- Chronic wounds and ulcers
- Skin breakdown

You must be vigilant about skin care and hygiene. There is also a small risk of developing a lymph-tissue type of cancer.

How can I avoid getting Lymphedema?

Some surgeons are using a technique called sentinel lymph node dissection to prevent lymphedema from developing after surgery for breast cancer. However, this technique is not always appropriate or effective.

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FACT SHEET

Exercises for lymphedema

Decongestive Exercises for the Lower Extremity

- Exercises should be performed wearing compression bandages or compression garments (except when exercises are performed in the water)
- Tight or restrictive clothing should not be worn while performing the exercises
- Exercises should be performed twice daily for about 10-15 minutes. The duration of the program should be increased slowly over a comfortable period of time
- Movements should be performed in a slow and controlled manner, and the musculature should be relaxed between each individual exercise. The relaxation phase should last at least as long as the time spent during the exercise

Exercises should be performed lying supine on the floor, preferably on a cushioned mat or other surface that maintains some firmness. Proper breathing techniques should be used throughout the session. To avoid back strain, a small pillow may be placed under the knees

Abdominal Breathing (3 repetitions)

Place both hands on your belly
Inhale deeply through your nose into your belly (feel how you breathe against your hands)
Exhale through your mouth

Perform breathing exercises as often as possible during the day

Foot and Leg Exercises (3-5 repetitions each)

Toe Clenches (either alternating or with both feet at the same time)

Curl your toes and squeeze for about three seconds
Relax the toes for three seconds

Spread the Toes (either alternating or with both feet at the same time)

Spread the toes as far as possible and hold for about three seconds
Relax the toes for about three seconds

Ankle Curls (either alternating or with both feet at the same time)

Flex the foot as far as possible at the ankle with the toes pointing away from the body (back of the knee remains on the floor)
Hold for about three seconds

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Last updated Aug 2012

Flex the foot as far as possible at the ankle with the toes pointing to the shin

Relax for about three seconds

Ankle Rotation (either alternating or with both feet at the same time)

Rotate foot at the ankle, clockwise and counter-clockwise

"Riding the Bike" (for about one minute)

Lying on your back, move legs in the air as if riding a bicycle (If you use a stationary bike, keep it on a low setting to avoid soreness or strain)

Heel Sliding

Move the heel of your foot as close as possible to your buttocks
Return to starting position and alternate the leg

Hand and Knee Touch

Lift one knee and push the palm of the opposite hand against knee. Hold for about three seconds
Relax for about three seconds and alternate sides

Butt Lift

Bend the knees and place your feet flat on the floor
Raise your buttocks off the floor and hold for about three seconds
Bring the buttocks back to the floor and relax for about three seconds

Walking

Walking is a great exercise for lymphedema of the lower extremities and can be easily performed while you walk your dog around the block (if you have one). If you use a Stairmaster or treadmill, keep it on a low setting to avoid soreness or strain.

Remember to always try to walk with a normal gait. Do not drag the affected leg and avoid limping.

<http://www.lymphedemablog.com/2011/01/06/decongestive-and-breathing-exercises-for-lymphedema/>

Additional Resources:

Stretching exercises –

<http://www.youtube.com/watch?v=QoP9zQ05Qp0>

Arm Exercises (examples) –

<http://www.youtube.com/watch?v=3EbeJsaRJ5Q>

Arm Exercises with a Wand (examples) -

[http://www.youtube.com/watch?v=O_o5fE-](http://www.youtube.com/watch?v=O_o5fE-b8aw&feature=related)

[b8aw&feature=related](http://www.youtube.com/watch?v=O_o5fE-b8aw&feature=related)

Leg Exercises (examples) –

<http://www.youtube.com/watch?v=BADdLA0zyNw&NR=1>

Lymphedema People –

http://www.lymphedemapeople.com/wiki/doku.php?id=exercises_for_lymphedema