



## Lymphedema

If you notice swelling and heaviness in the affected limb or other body part, along with tightness and itching you may have a condition called Lymphedema.

Lymphedema is an accumulation of lymph fluid in the soft tissues, most frequently in the arms or legs. Lymph is a protein rich fluid which is normally filtered by the lymph nodes and is then released into the bloodstream. When the nodes are obstructed or if lymphatic channels are damaged e.g. from trauma, their filtering capacity is overwhelmed and lymph fluid collects and causes swelling.

### USUALLY CHRONIC, BUT GENERALLY CAN BE CONTROLLED

Lymphedema is usually a chronic condition. If left untreated, it can lead to irreversible skin changes, frequent infections, reduced mobility of the affected limb and eventually diminished quality of life.

### SYMPTOMS

Lymphedema signs and symptoms, which occur in your affected arm or leg, include:

Swelling of part or all of your arm or leg, including fingers or toes

A feeling of heaviness or tightness

Restricted range of motion

Aching or discomfort

Recurring infections

Hardening and thickening of the skin (fibrosis)

### PROGRESSIVE SWELLING

You may experience progressive swelling that causes significantly reduced mobility of the affected limb.

### SKIN PROBLEMS: INFECTIONS, HARDENING & THICKENING

In advanced stages, lymphedema can cause recurrent skin infections, non healing wounds, irreversible soft tissue swelling and, finally, hardening and thickening of the skin.

### CAUSES

**PRIMARY LYMPHEDEMA** is a result of impaired or maldevelopment of lymph nodes and/or blood vessels and mainly affects women. It can be present at birth, however, symptoms often appear later in life. Primary lymphedema most often occurs in the legs but can affect the entire body. Causes include:

**Milroy's disease (congenital lymphedema).** This disorder begins in infancy and causes lymph nodes to form abnormally.

**Meige's disease (lymphedema praecox).** This disorder often causes lymphedema around puberty or during pregnancy, though it can occur later, until age 35.

**Late-onset lymphedema (lymphedema tarda).** This occurs rarely and usually begins after age 35.

SECONDARY LYMPHEDEMA can be caused by:

**Surgery.** Removal of or injury to lymph nodes and lymph vessels may result in lymphedema. For example, lymph nodes may be removed to check for spread of breast cancer, and lymph nodes may be injured in surgery that involves blood vessels in your limbs.

**Radiation treatment for cancer.** Radiation can cause scarring and inflammation of your lymph nodes or lymph vessels.

**Cancer.** If cancer cells block lymphatic vessels, lymphedema may result. For instance, a tumor growing near a lymph node or lymph vessel could enlarge enough to block the flow of the lymph fluid.

**Infection.** An infection of the lymph nodes or parasites can restrict the flow of lymph fluid. Infection-related lymphedema is most common in tropical and subtropical regions and is more likely to occur in developing countries.

Another reason is chronic overload of the lymphatic system due to recurrent skin infections, problems with blood vessels or obesity. Secondary lymphedema is most often localized to the body part with the absent or injured lymph nodes.

## DIAGNOSIS

A history of painless leg swelling experienced as a teenager or at any age following removal or damage to lymph nodes may suggest lymphedema. A diagnosis can often be confirmed by a physical exam of the affected limb or body part.

## TESTS MAY BE NEEDED

Imaging of the lymphatic system through **lymphoscintigraphy** is sometimes performed to identify treatment options. Other tests that may be ordered include: Duplex ultrasound, CT scan and MRI

## TREATMENTS

There's no cure for lymphedema. Treatment focuses on reducing the swelling and controlling the pain. Lymphedema treatments include:

**Exercises.** Light exercises in which you move your affected limb may encourage lymph fluid drainage and help prepare you for everyday tasks, such as carrying groceries. Exercises shouldn't be strenuous but instead gentle contraction of the muscles in your arm or leg.

**Wrapping your arm or leg.** Bandaging your entire limb encourages lymph fluid to flow back toward the trunk of your body.

**Massage.** A special massage technique called manual lymph drainage may encourage the flow of lymph fluid out of your arm or leg. And various massage treatments may benefit people with active cancer. Be sure to work with someone specially trained in

these techniques. Massage isn't for everyone. Avoid massage if you have a skin infection, blood clots or active disease in the involved lymph drainage areas.

**Pneumatic compression.** A sleeve worn over your affected arm or leg connects to a pump that intermittently inflates the sleeve, putting pressure on your limb and moving lymph fluid away from your fingers or toes.

**Compression garments.** Long sleeves or stockings made to compress your arm or leg encourage the flow of the lymph fluid out of your affected limb. Wear a compression garment when exercising the affected limb. Obtain a correct fit for your compression garment by getting professional help. Ask your doctor where you can buy compression garments in your community. Some people will require custom-made compression garments.

If you have difficulties putting on or taking off the compression garment, there are special techniques and aids to help with this; your lymphedema therapist can review options with you. In addition, if compression garments or compression wraps or both are not an option, sometimes a compression device with fabric fasteners can work for you.

**Complete decongestive therapy (CDT).** This approach involves combining therapies with lifestyle changes. Generally, CDT isn't recommended for people who have high blood pressure, diabetes, paralysis, heart failure, blood clots or acute infections.

In cases of severe lymphedema, your doctor may consider surgery to remove excess tissue in your arm or leg to reduce swelling. There are also newer techniques for surgery that might be appropriate, such as lymphatic to venous anastomosis or lymph node transplants.

## STAYING HEALTHY

Here are ways to manage lymphedema:

Wear compression garments and use prescribed pumps for the rest of your life.

Elevate the affected limb.

Exercise regularly at a moderate level while wearing compression garments.

Eat a nutritious, balanced, low salt diet.

Take good care of the skin on your affected limb or body part.

Wear protective clothing to protect your skin from injury.

Cleanse your skin and keep it well moisturized.

Guard against infections and fungi.