Lymphatic System & Lymphedema

The lymphatic system is made of a collection of lymph nodes and lymph vessels that run throughout your body. The lymph vessels run very close to the blood vessels in our bodies and move fluid from the body through the lymph nodes and then into the blood. Lymph nodes work as filters to fight infection and help regulate fluid. Lymph is a thin, clear fluid that circulates throughout the body to remove wastes, bacteria, and other substances from tissues. Edema is the buildup of excess fluid. So lymphedema occurs when too much lymph collects in any area of the body due to damage to lymph nodes or vessels or blockage in the system. Fluid builds up in soft body tissues and causes swelling.

Lymphedema is chronic swelling that happens when the lymph is not moving properly due to your cancer treatment. Lymphedema may be caused by the cancer, surgery, chemotherapy, or radiation. Surgery and radiation can cut off or damage some of the nodes and vessels that lymph moves through. Over time, the flow of lymph can overwhelm the remaining pathways, resulting in a backup of fluid into the body’s tissues. Some people are born with poorly working lymph systems. In some cases, lymphedema is caused by damaged leg veins or a history of blood clots. These people can also develop lymphedema due to the backup of blood and fluid in the small vessels of the body.

Lymphedema results in chronic swelling that leads to tissue inflammation and scarring. The swollen body part feels harder to touch and is heavier than the non-swollen side. Lymphedema can result in increases in limb volume and thus contributes to limited mobility and sometimes pain.

How is lymphedema treated?

Treatment for lymphedema is complete/complex decongestive therapy (CDT).
What is complete decongestive therapy (CDT)?

Complex Decongestive Therapy (CDT) aims to reduce your swelling, improve the condition of your skin, increase your mobility, reduce the risk of infection, and optimize your overall health.

Complete decongestive therapy (CDT) has many parts:

- **Manual Lymphatic Drainage (MLD):** A light skin stretching technique that stimulates the lymphatic system. MLD uses light touch to move excess lymph and fluid out of the tissues and back into the lymphatic vessels.
- **Compression/Bandages:** Layered bandaging with foam or specially fitted garments that support the affected area to control swelling. Wearing a compression sleeve or elastic bandage may help to move fluid and prevent the buildup of excess fluid.
- **Exercises:** With compression, special exercises will help to pump lymph out of the swollen area.
- **Skin Care:** Keeping the skin clean and moisturized will help prevent infections that often can happen with lymphedema.
- **Self-Care Management:** Learning how to manage your lymphedema on your own is a key component in your treatment. Studies suggest to manage your symptoms, eat a healthy diet, control body weight and learning how to reduce injury to the area are important.

How long does treatment last?

It depends! There are two phases of treatment:

**Phase 1: Active Phase**

- The goal of Phase 1 is to get the extra lymph out of the affected body region, to reduce visible swelling, and to reduce other symptoms of lymphedema.
- Phase I includes: manual lymphatic draining (MLD), bandaging, exercises, skincare
- The number of weeks depends on the amount of swelling and tissue firmness and how long it takes for your symptoms affecting the skin to improve.
- It can last on average from anywhere from 2-4 weeks or even 8 weeks, depending on how long it takes to reduce the swelling and improve other symptoms affecting the skin.
- Complete decongestive therapy for one-hour sessions, 4 to 5 days per week.
- Bandages with foam are worn about 23 hours per day and often only removed to bathe.
- Exercises are designed to help encourage the drainage of lymph from affected tissue
- Skin and Nail care are so important. It’s imperative to protect the skin in the affected area from drying, cracking, infection, and skin breakdown.

**Phase II: Maintenance Phase**

- The goal of the maintenance phase is to maintain and maximize the achievements of Phase I, and to gain long-term control of your lymphedema.
- The maintenance phase includes: MLD, compression garments, exercises, and skincare
- You can expect to stick with phase II of CDT for many years or even for the rest of your life
- Elastic compression garments that fit like a second skin are worn during the day.
- Often bandages with foam are worn at night to decrease daily daytime swelling.
- Exercises are done while wearing compression.
- Self-manual lymphatic drainage is for about 20 minutes per day may be also prescribed by your healthcare professional.

How can I begin complete decongestive therapy?

Complete decongestive therapy can begin once you have a prescription from your doctor.

It is important to see a physical or occupational therapist that has passed a special training course to treat lymphedema. You will see the initials CLT, certified lymphedema therapist, behind his/her name. Therapists who have passed a national
certification test have CLT-LANA behind their name.

How do I find a certified therapist?

If you need to find a qualified lymphedema therapist in your area, you can consult the NLN website below. Several schools train qualified certified lymphedema therapists (CLT). Lymphedema therapists with CLT-LANA following their name have passed a national standardized examination.

- Use the NLN "find treatment" feature.

Next Article: Lymphedema and Exercise FAQs »

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