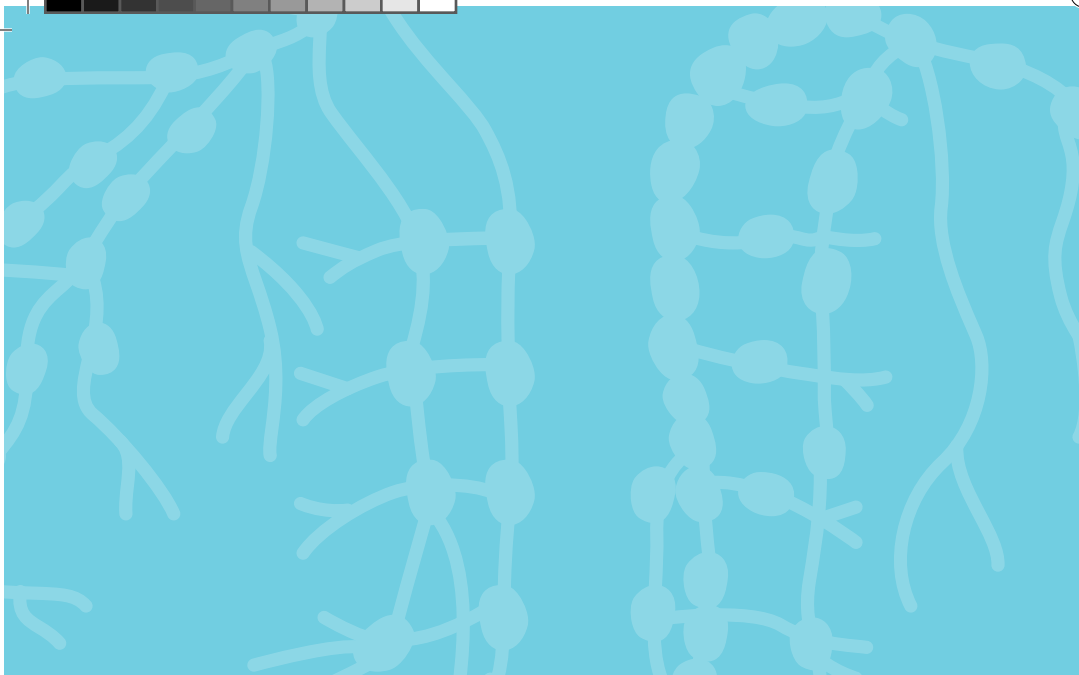




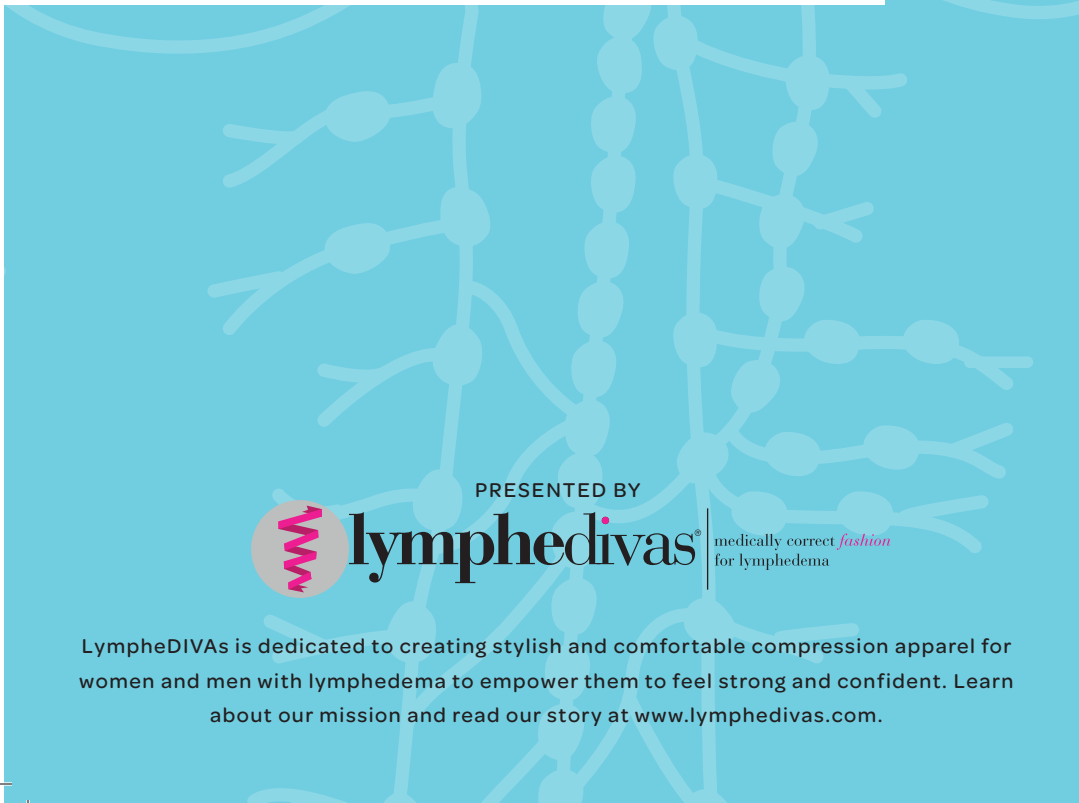
LYMPHEDEMA

A COMPLETE GUIDE





This booklet is for informational purpose only and should not be considered medical advice. If you suspect that you may have lymphedema, please contact your physician.



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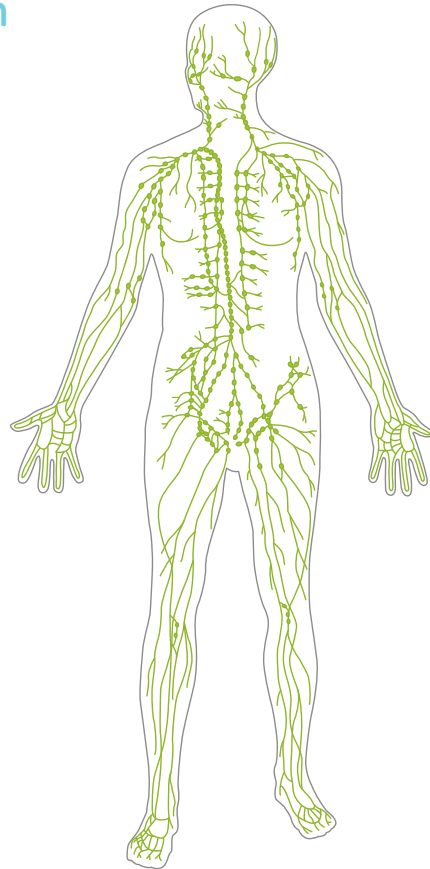
LymphedIVAs is dedicated to creating stylish and comfortable compression apparel for women and men with lymphedema to empower them to feel strong and confident. Learn about our mission and read our story at www.lymphedivas.com.

Contents

- LYMPHATIC SYSTEM 4
- LYMPHEDEMA 4
- LYMPHEDEMA STAGING 5
- LYMPHEDEMA RISK AFTER CANCER TREATMENT 6
- SIGNS OF LYMPHEDEMA 7
- REDUCING LYMPHEDEMA RISK 8
- LYMPHEDEMA MANAGEMENT 10
- COMPRESSION GARMENTS 11
- EXERCISE 12
- CELLULITIS 13
- ABOUT LYMPHEDIVAS 14

Lymphatic System

The function of the lymphatic system is to defend the body against infection and disease. The system itself is comprised of lymphatic organs and vessels. Lymphatic vessels are a part of the vascular system and are structured like a web. The lymphatic system removes fluid containing oxygen, glucose, amino acids, and products of metabolism from cells through the lymph vessels to the lymph nodes for filtration. The lymph nodes filter out bacteria and other pathogens and return the fluid into the bloodstream. Each person has hundreds of lymph nodes, but the size and quantity are unique to every individual.



Lymphedema

Lymphedema is an incurable lymphatic disease that appears as swelling in one or more parts of the body. The swelling (edema) occurs due to impedance in the flow of lymph fluid through the lymph vessels, or if there is an excess of fluid that exceeds the carrying capacity of the lymphatic system, this results in a buildup of protein-rich lymphatic fluid under the skin in the subcutaneous and deep tissues.

There are two types of lymphedema; primary and secondary. Primary lymphedema is genetic and often appears at birth or early childhood. Secondary lymphedema is a result of injury to the lymphatic system. Lymphedema often occurs after cancer treatment due to lymph node removal, radiation, and other localized treatment-related damage.

Lymphedema Staging

Lymphedema is a progressive chronic disease. Once a patient enters Stage 1 with the presence of visible swelling, it is not possible to return to Stage 0 and lymphedema must be managed so it does not get progressively worse and enter Stage 2 or 3. For patients at risk for secondary lymphedema, therapy focuses on risk-reduction to keep the patient at Stage 0.

Stage 0 No visible sign of lymphedema but the patient is at-risk for swelling. A compression garment may be used preventatively during at-risk activities.

Stage 1 Swelling that may come and go spontaneously. Elevation of the affected area may reduce swelling temporary. When skin is pressed, the indentation remains (pitting).

Stage 2 Swelling that is always present. Elevation of the affected area does not reduce swelling. When skin is pressed, the indentation does not remain (no pitting).

Stage 3 Permanent extreme swelling, often with pain and recurrent infections, requiring intense treatment and on-going management.

Lymphedema Risk After Cancer Treatment

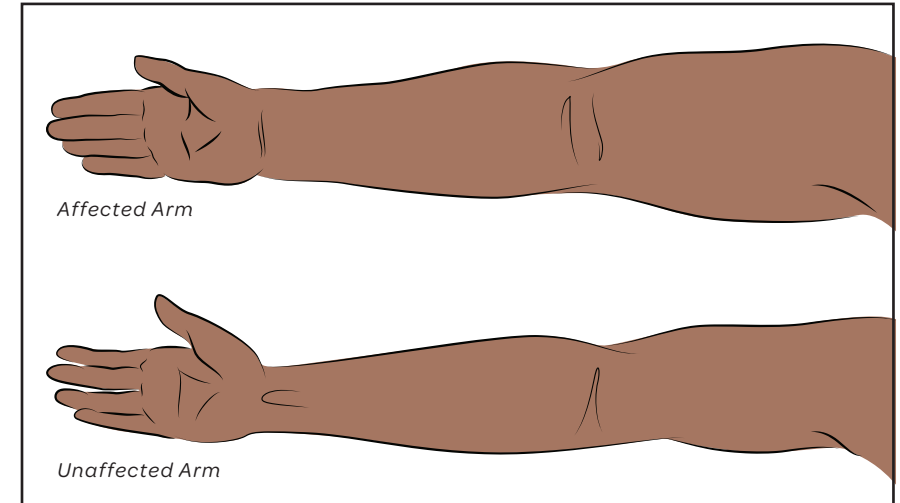


When there is damage to the lymphatic system during cancer treatment such as lymph node removal for dissection to determine cancer staging, radiation, or chemotherapy, there is a risk of lymphedema. The risk varies depending on how many lymph nodes are removed and any additional treatments performed. Unfortunately, there is no way to tell when lymphedema may occur after cancer treatment. Some patients present lymphedema during treatment, or soon after. However, the risk of lymphedema remains for more than twenty-five years after treatment.

Lymphedema will affect

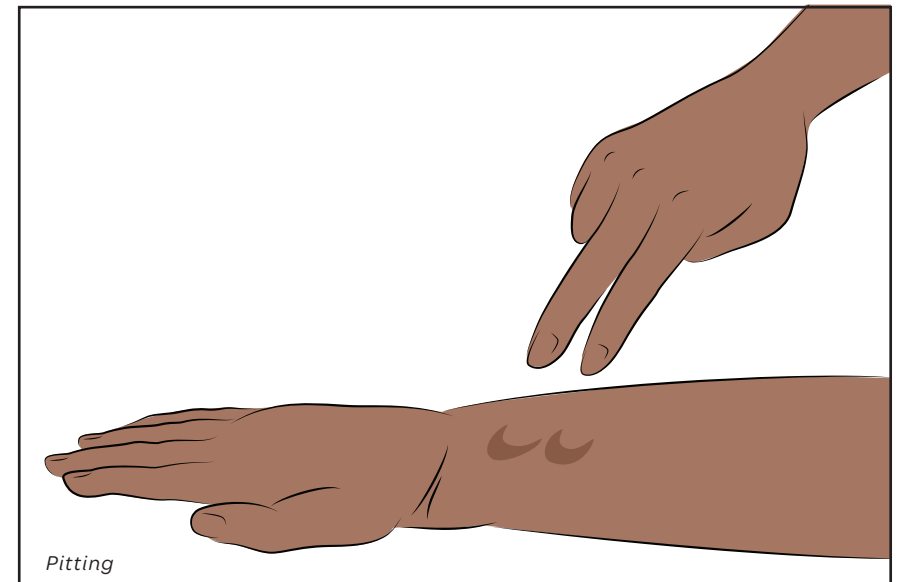
the limb or body part closest to the site of lymph node removal or radiation. For example, in breast cancer, lymphedema is often present in the arms and trunk. In cervical cancer, lymphedema often presents itself in the legs. If you are at risk, be sure to know the signs of lymphedema and consult your doctor if you experience any of them. With lymphatic disease, early intervention is essential to the quality of life after diagnosis.

Signs of Lymphedema



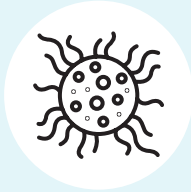
A full feeling and an increase in size in your at-risk limb.

Weakness or limited range of motion in the affected limb.



Pitting: when pressing the affected area for twenty seconds, the impression of the fingers remain.

Reducing Lymphedema Risk



Avoid Infection Since lymphedema is an impairment of the lymphatic system which is part of the immune system, it is best to avoid infection to the at-risk area. Any break in the skin can introduce outside infection. Use an unaffected area for blood draws and shots. Keep your skin clean and protect it from cuts and scratches. If a break in the skin does develop, be sure to clean the area, treat it with antibacterial ointment, and cover with a bandage.

Take extra care to avoid organic breaks in the skin. Protect yourself when performing activities that may result in injury such as gardening, playing sports, and hiking. Be sure to keep the skin of your affected area clean and moisturized.



Avoid Burns Just like a cut, a burn elicits an immune response which can trigger lymphedema. Be sure to apply (and reapply) sunblock when spending time outdoors to avoid sunburn. Exercise caution when cooking.



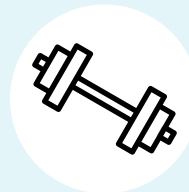
Reduce Exposure to Heat

There is a correlation between hot weather and increased swelling. If you're at risk for lymphedema, exercise caution during the warmer months and try to take breaks to cool down if possible. Avoid extremely hot baths/showers, saunas and spas.



Avoid Constrictions

Any constriction against your skin can create a tourniquet that may impede lymphatic fluid drainage and can trigger lymphedema in your affected area. Be aware of possible sources of constriction such as tight jewelry, watches, restrictive clothing, and blood pressure cuffs if your affected limb is your arm.



Maintain a Healthy Diet & Exercise Routine

Be sure to eat lots of nutritious foods such as fruit, vegetables, complex carbohydrates, and lean proteins. Stay hydrated and try to cut back on salt when possible. It is safe to exercise when you're at risk for lymphedema. Studies suggest that wearing a compression garment preventatively when exercising can reduce the chances of swelling. When returning to exercise after cancer treatment, be sure to check with your doctor or therapist about the level of intensity that is right for you.

Research has shown a correlation between obesity and lymphedema. If you are obese, talk to your doctor to develop a diet and exercise program that works for you.



Take Precaution During Air Travel

The pressurized cabin of an airplane can cause or exacerbate swelling. It is advisable to wear a well-fitting compression garment before, during, and after air travel.

Lymphedema Management

If you are at risk for lymphedema or have existing swelling, it is essential to establish a relationship with a certified lymphedema therapist. The Lymphology Association of North America (LANA) provides a standard of certification for lymphedema care for healthcare practitioners. You may find a LANA Certified Lymphedema Therapist (CLT) on their website: clt-lana.org.

If you are at risk for secondary lymphedema, your therapist will work with you to establish baseline measurements. They may take physical measurements or use a bioimpedance device to track changes in the extra-cellular fluid which can help identify and diagnose lymphedema sooner. The therapist may also go over risk reduction practices and schedule regular intervals to continue monitoring the affected area for signs of swelling. At this point, the goal of lymphedema therapy is to reduce the chance of swelling and to identify any swelling as early as possible.

The standard for lymphedema therapy for when there is a presence of swelling is called Complete Decongestive Therapy (CDT). Since the lymphatic system and any impairment to it is unique to each patient, CDT will vary from patient to patient, including the rigor of therapy and the techniques used. CDT often includes Manual Lymphatic Drainage (MLD) message, wrapping in bandages, compression garment wear, lymphatic breathing/exercises, and an introduction to a lymphedema self-care routine.

FIND A THERAPIST

Find a Lymphology Association of America (LANA)
Certified Lymphedema Therapist (CLT): www.clt-lana.org.

Lymphedema Compression Garments

Medical graduated compression garments are often a part of lymphedema therapy. Each medical graduated compression garment is assigned a compression class which determines how much pressure that garment delivers. For example, in the United States, Class 1 is defined as 20-30mmHg, which means that the garment provides between 20 to 30 millimeters of mercury at the point of highest pressure. A Class 1, 20-30mmHg, arm sleeve would have between 20-30mmHg at the wrist, and then the pressure would decrease gradually up the arm. The purpose of a graduated compression garment is to provide pressure that is highest at the most distal point of the body and decreases toward the heart to aid in pumping lymph fluid toward the body. Pressure from the compression garments helps to circulate lymphatic fluid and reduces lymphatic fluid stagnation which can cause the onset of or advancement of lymphedema. Wearing a compression garment based on the advice of your therapist is an integral part of a lymphedema management self-care regimen.





Lymphedema and Exercise

If you're at risk for lymphedema or have lymphedema, it is important to remain active. Studies have shown that exercise, performed correctly and at the right intensity, can help improve lymphatic flow. When working with a therapist, they may recommend and demonstrate breathing and muscle pump exercises you can perform to help improve lymphatic function, these exercises should be performed while wearing a compression garment.

Cardiovascular and resistance training can be a fundamental part of lymphedema self-care. You may work with your lymphedema therapist to develop a beneficial exercise routine. Exercise has proven to impact physical and mental health positively.

Lymphedema and Cellulitis

If you have lymphedema or are at risk for lymphedema, it is imperative to be aware of an infection called cellulitis. It has been noted in medical literature that the incidence of cellulitis infection in limbs affected by lymphedema is higher than would be expected. An infection of this nature can be severe unless it is identified and addressed early on, so knowing the symptoms and when to see a medical professional is especially important.

Cellulitis is a bacterial infection of the deeper layers of the skin, typically, but not always, caused by Streptococcus or Staphylococcus bacteria. There is a dependent relationship between lymphedema and cellulitis. Cellulitis causes widespread lymphatic damage which can result in secondary lymphedema, and in turn, the lymphedema leads to increased risk and occurrence of cellulitis. There has been a recorded incidence of cellulitis recurring in as many as 47% of patients. This cycle often means that infections of this type can increase the severity of lymphedema and may result in a hospital stay.

SIGNS OF CELLULITIS

- Redness
- Localized warming
- Localized swelling
- Fever
- Chills
- Tenderness
- Pain
- Weeping of the area

If you think you may have cellulitis, please consult your physician as soon as possible.

About Lymphedivas

The story of LymphedIVAs began in Philadelphia when two young breast cancer survivors, Rachel Troxell and Robin Miller, developed lymphedema, a side effect of breast cancer treatment that can cause permanent swelling in the arms. Their physicians and lymphedema therapists recommended a compression sleeve as the most effective way of controlling the swelling. When they researched the options for the sleeve, they found that the only ones available were rough textured, heavy, hot, beige, and bandage-like. Frustrated and dismayed over the lack of options, Robin and Rachel met with Kristin Dudley, a fashion designer, to discuss their idea of creating a more elegant and comfortable compression sleeve.

In late 2007, Robin left the company. Soon after, Rachel discovered her breast cancer had returned. While she was in treatment, she continued building LymphedIVAs, which brought her much joy during a difficult time in her life. Rachel died January 22, 2008, at the age of 37. Her determination and compassion to improve the lives of breast cancer survivors is very much ingrained in the spirit of LymphedIVAs.

Today, LymphedIVAs' products can be found in retail locations nationwide and internationally. At Rachel's request, her father, Dr. Howard Levin and her mother, Judy Levin took over the responsibility of running the company which their daughter helped found. In August of 2010, Rachel's little brother, Josh Levin, joined the company and is now running it with his parents. They all hope that LymphedIVAs' compression apparel will continue to inspire those affected by lymphedema everywhere to feel as beautiful, strong and confident as Rachel was.





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medically correct *fashion*
for lymphedema

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