

Your body's lymphatic system maintains fluid balance and defends against infection. Its extensive drainage network filters excess fluids and other substances from the body tissues and provides a pathway for your immune systems to clear out foreign substances.

Maintaining Fluid Balance

The return of excess fluids to the bloodstream is one of many crucial tasks that your lymphatic system performs. Water, proteins, and other substances, referred to as lymph, are continually leaking out of tiny blood capillaries into the surrounding tissues. Swelling—edema—occurs when your lymphatic vessels become blocked or disrupted, resulting in a condition referred to as lymphedema.

Generally characterized by swelling in the arms or legs, lymphedema can affect your mobility by decreasing your range of motion and causing movement to become more painful. While lymphedema can be hereditary, most cases are the result of infection, scar tissue, or surgical removal of the lymph nodes or vessels.

SIGNS & SYMPTOMS LYMPHEDEMA

- swelling of arms, legs, shoulder, hands, fingers, or chest
- skin that feels tighter, harder, or thicker than normal in the affected area
- repeated infections in your arm or leg

Risk factors for developing lymphedema include:

- inflammation of the arm or leg after surgery
- scar tissues in the lymphatic ducts, veins, or under the collarbones caused by surgery or radiation therapy
- congestive heart failure
- inadequate diet or being overweight

Fighting Infection

In addition to your mobility, your lymphatic system is integral to your overall health. By creating a network of vessels throughout the body, it provides transportation to the infected site for antibodies and lymphocytes (good) and transportation out of the body for bacteria (bad).

When your body identifies a foreign substance or infection, it sends in cells to engulf and destroy germs and damaged cells. The lymph nodes act as filters, helping the body to absorb fluids that it has lost, and remove waste from the body. This is why you often find that your lymph nodes swell when you're fighting off an infection.

Keeping Your Lymphatic System Healthy

As one of your body's first lines of defense against disease, you want to be sure that your lymphatic system is fully functional. In the early stages of lymphedema, when the swelling is not severe, it can be managed through compression, exercise, and elevation of the affected limb(s). The compression and elevation encourage and direct the flow of excess fluids, while the exercise stimulates the lymphatic vessels, using the muscle contraction as a pump, to move the fluid out of the affected area.

In addition to compression, physical therapists can use manual lymphatic drainage, which feels like a light form of massage, which helps to improve the flow of lymph from the extremities. Once the limb has decreased in size, your physical therapist will develop an exercise program that will increase your physical fitness without unnecessarily straining the affected limb(s). Furthermore, they can advise you on strategies to decrease the fluid build-up in your limbs and make sure that your compression garments are appropriately fitted.

An Alternative to Traditional Compression

If you've already tried compression garments and found them uncomfortable and difficult to put on, we offer an alternative to the traditional compression stockings.

EdemaWear is a new compression garment developed at the University of Nebraska Medical Center. They are inexpensive, breathable, and easier to put on and take off. Unlike traditional compression garments, which act as lymphatic tourniquets, EdemaWear technology creates "zero-pressure zones" between the compression furrows to enhance lymphatic drainage.



