

Lymphedema [lim-fa-DEE-ma] occurs when lymph fluid collects in the arm (or other areas such as the hand, fingers, chest or back) causing it to swell. It usually develops within 3 years of breast surgery. It can also occur right after surgery or many years after treatment. Fortunately, most survivors don't get lymphedema.

Lymph is a clear fluid that contains white blood cells. Lymph from tissues and organs drains into lymph vessels that run throughout the body. These vessels carry the lymph to the lymph nodes where it is filtered. The lymph nodes near the breast may be affected during treatment for breast cancer.

Some of the lymph nodes (axillary nodes) in the underarm area (axilla) may be removed during breast cancer surgery. They are checked to see if they have cancer cells. When these nodes are removed (called axillary surgery) or are treated with radiation therapy, some of the lymph vessels can become blocked. This may keep lymph fluid from leaving the area.

### Who's at risk?

Lymphedema is related to axillary surgery and radiation therapy, but it's not clear why some survivors get lymphedema and others do not. Some factors that increase risk include:

- A large number of axillary nodes removed during surgery
- Radiation therapy to the axilla
- A combination of axillary surgery and radiation therapy to the axilla
- A large number of axillary nodes with cancer
- Infections in the area after surgery
- Being overweight or obese

Modern surgery removes fewer axillary nodes than in the past. As a result:

- Lymphedema is less common now than in the past.
- The cases that occur are less severe in terms of the impact on movement and the way the arm looks.

### What to look for

If you notice early signs of lymphedema, talk with your doctor. Signs may include:

- Swelling in the arm or hand (for example, you may notice a tighter fit of rings or watches)
- Feeling of tightness, heaviness or fullness in the arm or hand
- Feeling of tightness in the skin or a thickening of the skin
- Pain or redness in the arm or hand

See your doctor as soon as you notice any of these signs or any changes in your arm.



Image courtesy of Stanley G. Rockson, MD, Allan and Tina Neill Professor of Lymphatic Research and Medicine, Stanford School of Medicine.

## Tips that may reduce your risk

We do not know how to prevent lymphedema. Injury or infection to the arm may trigger it. It is a good idea to take steps to reduce the risk of injury or infection. The tips below have not been proven in clinical trials but they may work for some people.

- Treat infections of the at-risk arm and hand right away.
- Wear gloves when doing house or garden work.
- Keep skin clean and well-moisturized.

- Use the opposite arm when having blood drawn, getting injections or having blood pressure taken.
- Avoid sunburn and excess heat from saunas, hot baths, tanning and other sources.
- Do not cut the nail cuticles of the at-risk hand.
- Use insect repellent when outdoors.
- Avoid injuries, including scratches and bruises, to the at-risk arm.
- Rest the at-risk arm in an elevated position (above the heart or shoulder).

## Treatments for lymphedema

There is no cure for lymphedema, however, treatments can restore some movement and reduce pain and swelling. Check with your insurance company to see if your treatment choice is covered.

Standard lymphedema treatment includes complex decongestive therapy. This approach aims to decrease swelling and lymphedema-related infection through a combination of:

- Skin and nail care
- Compression bandages or sleeves (these apply pressure around the arm and help push lymph fluid out of the arm)
- Exercises (closing and opening a fist, for example)
- Manual lymphatic drainage (a special type of massage)
- Physical therapy

Other treatments may include:

- Weight bearing exercise
- Use of a compression device (a pump connected to a sleeve that inflates and deflates to apply pressure to the arm)
- Surgery
- Weight loss

Before starting any of these therapies, discuss them with your doctor.

## Resources

Susan G. Komen®  
1-877 GO KOMEN (1-877-465-6636)  
[www.komen.org](http://www.komen.org)

Lymphatic Education & Research Network  
516-625-9675  
[www.lymphaticnetwork.org](http://www.lymphaticnetwork.org)

National Lymphedema Network  
1-800-541-3259  
[www.lymphnet.org](http://www.lymphnet.org)

National Cancer Institute  
1-800-4-CANCER (1-800-442-6237)  
[www.cancer.gov](http://www.cancer.gov)

### Related fact sheets in this series:

- Axillary Lymph Nodes
- Breast Cancer Surgery

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