



# **Lymphedema: What Every Woman With Breast Cancer Should Know**

## **Hand and Arm Care After Surgery or Radiation Therapy for Breast Cancer**

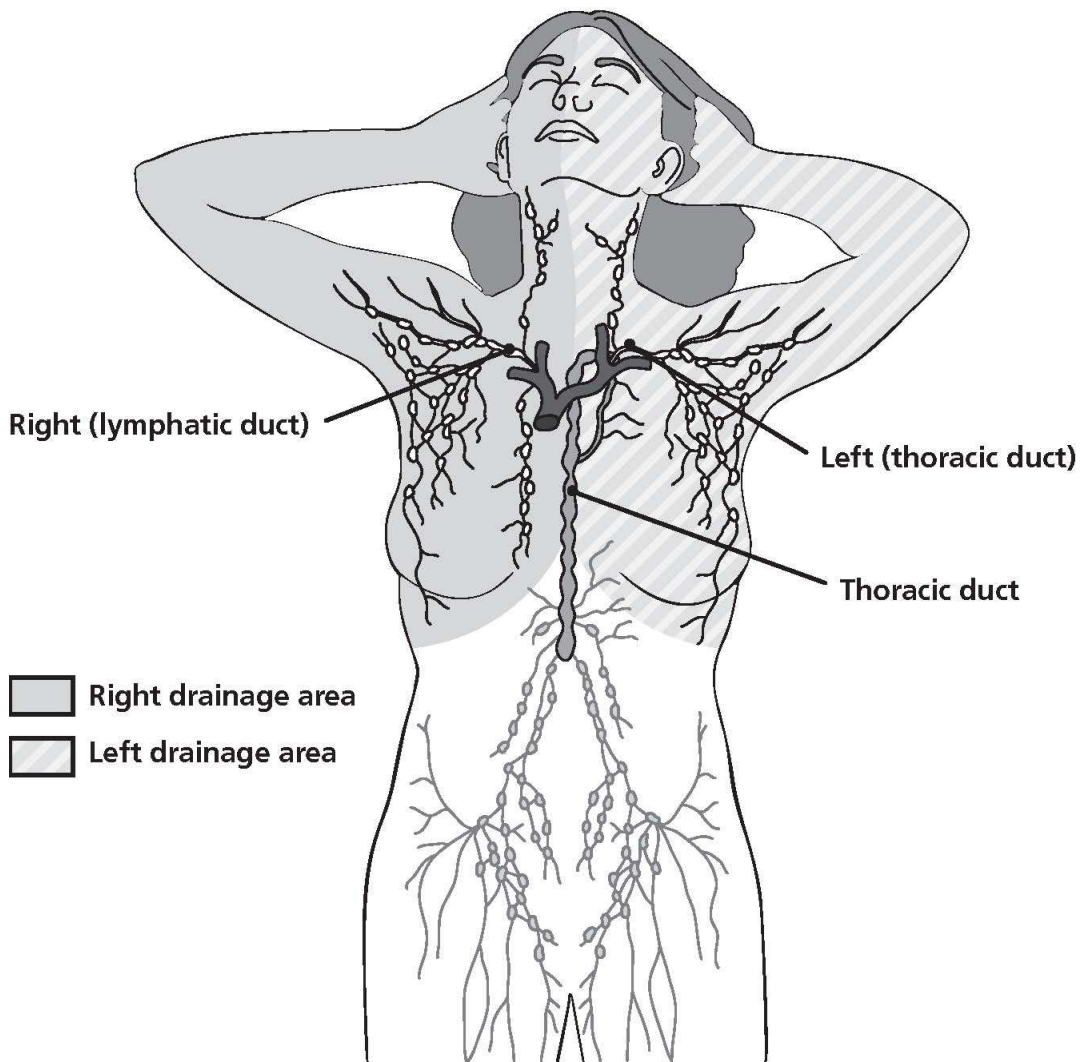
### **Why do I need to know about lymphedema?**

Women who have been treated for breast cancer may be at risk for arm, breast, and chest swelling called lymphedema (limf-uh-dee-muh). Most women who have had breast cancer will not develop this side effect, but some will. The risk of lymphedema is higher for women who have surgery and radiation therapy to treat breast cancer.

Here we will talk about what lymphedema is, the steps you can take to lower your risk, and what signs you can look for. There is no way to know who will get lymphedema. But there are things you can do to try to prevent it. And recognizing it early and starting treatment right away can help manage it.

### **What is the lymph system?**

Our bodies have a network of lymph (limf) nodes and lymph vessels that collect and carry watery, clear lymph fluid, much like veins collect blood from all parts of the body and carry it through the body. Lymph fluid contains proteins, salts, and water, as well as white blood cells, which help fight infections. In the lymph vessels, valves work with body muscles to help move the fluid through the body. Lymph nodes are small collections of tissue that work as filters for harmful substances and help us fight infection.



## What is lymphedema?

During surgery for breast cancer, the doctor removes at least one lymph node from the underarm area to see if the cancer has spread. Sometimes doctors remove more than one. When lymph nodes are removed, lymph vessels that carry fluid from the arm to the rest of the body are also removed because they route through and are wrapped around the nodes.

Removing lymph nodes and vessels changes the flow of lymph fluid in that side of the upper body. This makes it harder for fluid in the chest, breast, and arm to flow out of this area. If the remaining lymph vessels cannot drain enough fluid from these areas, the excess fluid builds up and causes swelling, or lymphedema. Radiation treatment to the lymph nodes in the underarm can affect the flow of lymph fluid in the arm, chest, and breast area in the same way, further increasing the risk of lymphedema.

Lymphedema is a build-up of lymph fluid in the fatty tissues just under your skin. It usually develops slowly over time. The swelling can range from mild to severe. It can

start soon after surgery or radiation treatment. But it can also begin months or even many years later. Women who have many lymph nodes removed and women who have had radiation therapy for breast cancer have a higher risk of getting lymphedema.

Doctors still do not fully understand why some patients are more likely to have problems with fluid build-up than others. They expect that in the future fewer women will develop lymphedema because:

- Breast surgery and treatment keep getting more conservative (that is, more women are treated with lumpectomy rather than mastectomy).
- Research advances have led to methods like the sentinel lymph node biopsy (a procedure that allows the surgeon to remove only 1 or 2 lymph nodes).
- Newer studies are looking at finding which lymph nodes drain the arm before surgery so they can be preserved when possible. This procedure is called *axillary reverse mapping*.

There is still a lot to be learned about lymphedema, but there are ways that you can care for your arm and breast area to reduce your chances of having future problems. Once lymphedema has started, it cannot be cured. But early and careful management can reduce symptoms and help keep it from getting worse.

## How to reduce swelling after surgery or radiation

Right after surgery, the affected arm or breast area may swell. This swelling is usually short-term and slowly goes away over the next 6 to 12 weeks. Talk to your doctor or nurse about what you should expect and what you should do. These tips may help ease the swelling:

- Use your affected arm as you normally would when combing your hair, bathing, dressing, and eating.
- Put your affected arm above the level of your heart 2 or 3 times a day and keep it there for 45 minutes. Lie down to do this, and fully support your arm. Place your arm up on pillows so that your hand is higher than your wrist and your elbow is a little higher than your shoulder.
- Exercise your affected arm while it is supported above the level of your heart by opening and closing your hand 15 to 25 times. Repeat this 3 to 4 times a day. This helps reduce swelling by pumping lymph fluid out of your arm through the undamaged lymph vessels.
- To get back your normal shoulder and arm movement, start exercising your affected arm about a week after surgery. Be sure to talk to your doctor, nurse, or physical therapist before doing any exercises. For most people, the full range of motion is regained within 4 to 6 weeks.

- Keep in mind that the arm may swell if you have radiation therapy after surgery, and the swelling may last longer than normal. Radiation may also cause some swelling in the chest and breast toward the end of the treatment. In most cases, this swelling is short-term and will slowly go away. During treatment and up to 18 months afterward, you should do simple stretching exercises each day to keep full movement in your chest, arm, and shoulder.

Women who have had many lymph nodes removed and women who have had radiation therapy may have a higher risk of developing lymphedema.

## How to help prevent and control lymphedema

At this time, there are no scientific studies to show that women can prevent lymphedema. Still, most experts say following these basic guidelines might lower your risk of lymphedema or delay its onset:

### Try to avoid infection.

Your body responds to infection by sending extra fluid and white blood cells to fight the infection. If lymph nodes and vessels are missing or damaged, it is harder for the body to move this extra fluid, which can trigger lymphedema. Good hygiene and careful skin care may reduce the risk of lymphedema by helping you avoid infections. Follow these tips to help you care for the hand and arm on the side of your body that had surgery:

- Have your blood drawn, IVs, and shots done in your unaffected arm if you can. Also get flu shots and vaccinations in your unaffected arm or somewhere else, like the hip. Tell your doctor or nurse that you are at risk for lymphedema.
- Keep your hands and cuticles soft and moist by regularly using moisturizing lotion or cream. Push your cuticles back with a cuticle stick rather than cutting them with scissors.
- Keep your arm clean. Clean and protect any skin breaks caused by cuts, scratches, insect bites, hangnails, or torn cuticles. See the section called “How to care for cuts, scratches, or burns.”
- Wear protective gloves when doing household chores that use chemical cleansers or steel wool, when gardening or doing yard work, and maybe when washing dishes.
- Wear a thimble when sewing to cut down on needle and pin pricks to your fingers.
- Use an electric shaver to remove underarm hair; it may be less likely to cut or irritate your skin than a blade razor or hair removal cream.
- Use an insect repellent to avoid bug bites when outdoors. If you are stung by a bee on the affected arm, clean and put ice on the area and raise the arm. Keep it clean, and call your doctor or nurse if the sting shows any signs of infection.

- Avoid extreme cold. As you warm up, it can cause rebound swelling and chapping of your skin, which may lead to infection.

## Try to avoid burns and high heat.

Like infections, burns can cause extra fluid to build up and cause swelling when lymph nodes have been removed or damaged. Tips to avoid burns include:

- Protect your chest, shoulder, and arm from sunburn. Use sunscreen labeled SPF 15 or higher, and try to stay out of the sun between the hours of 10 a.m. and 4 p.m., when the ultraviolet rays are strongest.
- Use oven mitts that cover your lower arms.
- Avoid oil splash burns from frying and steam burns from microwaved foods or boiling liquids.
- Avoid high heat, such as from hot tubs and saunas. Do not use a heating pad on the affected areas. Heat can increase fluid build-up.

## Try to avoid constriction.

Constriction or squeezing of the arm may increase the pressure in nearby blood vessels. This may lead to increased fluid and swelling (much like water building up behind a dam). Some women have linked this with the start of lymphedema. Lymphedema has also been linked with air travel, possibly because of air pressure changes. Tips include:

- Wear loose jewelry, clothing, and gloves. Avoid anything that forms a snug band around your arm or wrist.
- Do not use shoulder straps when carrying briefcases and purses.
- Wear a loose-fitting bra with padded straps that do not dig into your shoulder. After mastectomy, use a lightweight prosthesis (breast form). A heavy prosthesis may put too much pressure on the area.
- Have your blood pressure taken on the unaffected arm. If both arms are affected, blood pressure can be taken on your thigh.
- On long or frequent airplane flights, wear a compression sleeve. A well-fitted compression sleeve may help prevent swelling. But careful fitting is required, since any garment that is too tight near the top can actually reduce the lymph flow. Ask your doctor or physical therapist if you should be fitted for a sleeve to wear during air travel. You may also want to discuss ways to safely raise your arm above the level of your heart and exercise it during long flights.

## Try to avoid muscle strain.

It's important to use your affected arm for normal, everyday activities to help you heal properly and regain strength. This includes doing things like brushing your hair and bathing. Using your muscles also helps drain lymph fluid from your arms. If you've had surgery or radiation treatment, ask your doctor or nurse when you can start to exercise and what type of exercises you can do. But keep in mind that overuse, which can result in injury, has been linked with the start of lymphedema in some women. It's a good idea to follow these tips:

- Use your affected arm as normally as you can. Once you are fully healed, about 4 to 6 weeks after surgery or radiation treatment, you can begin to go back to the activities you did before your surgery.
- Exercise regularly, but try not to over-tire your shoulder and arm. Before doing any strenuous exercise, such as lifting weights or playing tennis, talk with your doctor, nurse, or physical therapist. They can help you set goals and limits so that you can work at the level of activity that is right for you. Ask your doctor or physical therapist if you should be fitted for a sleeve to wear during strenuous activities.
- If your arm starts to ache, lie down and raise it above the level of your heart.
- Avoid vigorous, repeated activities; avoid heavy lifting or pulling.
- Use your unaffected arm or both arms as much as possible to carry heavy packages, groceries, handbags, or children.

## Try to avoid gaining weight.

Extra fat requires more blood vessels. This means more fluid in the arms and chest, and places a greater burden on the lymph vessels that are left. Some studies have found that gaining weight after mastectomy is linked to a higher risk of lymphedema. Women who are more overweight (obese) are more likely to have severe lymphedema.

## How to care for cuts, scratches, or burns

- Wash the area with soap and water.
- Put an over-the-counter antibiotic cream or ointment on the area. Check with your doctor, nurse, or pharmacist if you are not sure what to use.
- Cover with a clean, dry gauze or bandage. Keep the area clean and covered until it heals. Change the dressing each day and if it gets wet.
- For burns, apply a cold pack or cold water for at least 15 minutes, then wash with soap and water and put on a clean, dry dressing.
- Check every day for early signs of infection: pus, rash, red blotches, swelling, increased heat, tenderness, chills, or fever.

- Call your doctor right away if you think you may have an infection.

## Signs of lymphedema

Some signs of lymphedema may include:

- Swelling in the breast, chest, shoulder, arm, or hand
- Area feels full or heavy
- Skin changes texture, feels tight or hard, or looks red
- New aching or discomfort in the area
- Less movement or flexibility in nearby joints, such as your shoulder, hand, or wrist
- Trouble fitting your arm into jacket or shirt sleeves
- Bra doesn't fit the same
- Ring, watch, and/or bracelet feels tight, but you have not gained weight

Early on, the skin usually stays soft and the swelling may be relieved by raising the affected arm. But over time, the swollen area may become hot and red and the skin hard and stiff.

If you have had any type of breast surgery, lymph nodes removed, or radiation treatment, look at your upper body in front of a mirror. Compare both sides of your body and look for changes in size, shape, or skin color.

## When to call your doctor or nurse

- If any part of your affected arm, chest, breast, or underarm area (axilla) feels hot, looks red, or swells suddenly. These could be a sign of infection or blood clot, and you may need treatment right away.
- If you have a temperature of 100.5°F or higher (taken by mouth) that is not related to a cold or flu
- If you have any new pain in the affected area with no known cause

## Lymphedema treatment

If you are diagnosed with lymphedema, there are treatments to reduce the swelling, keep it from getting worse, and decrease the risk of infection. The treatment is prescribed by your doctor and should be given by an experienced therapist. Be sure to check your health insurance to make sure the treatment is covered.

Mild lymphedema should be treated by a physical therapist or other health care professional who has gone through special training. Moderate or severe lymphedema is most often treated by a therapist with special training and expertise who will help you with skin care, massage, special bandaging, exercises, and fitting for a compression sleeve. This is sometimes known as complex decongestive therapy, or CDT.

Manual lymphatic drainage, or MLD, is a type of massage used along with skin care, compression therapy, and exercise to manage lymphedema. The therapist will also teach you things like how to care for the lymphedema at home and how and when to wear the compression sleeve.

Although most insurance companies will pay for lymphedema treatment, some do not cover the cost of compression garments and dressings. Check with your insurance company about coverage for these therapies.

Seeking and getting treatment early should lead to a shorter course of treatment to get your lymphedema under control.

## **Take care of yourself**

Taking care of your whole body is important. Eat well and get to and stay at a healthy weight. Try to eat more servings of vegetables and fruits each day (about 2½ cups total). Choose whole-grain foods instead of white flour and sugars. Cut back on processed meats like hot dogs, bologna, and bacon. If you drink alcohol, limit yourself to 1 drink a day. And don't forget to get some type of regular exercise. Try to get at least 150 minutes of moderate-intensity or 75 minutes of vigorous activity per week, preferably spread throughout the week. A good diet and regular exercise can help you stay at a healthy weight and give you more energy. Try to reduce the stress in your life and get enough sleep, too.

You also need people you can turn to for strength and comfort. Support can come in many forms: family, friends, cancer support groups, places of worship or spiritual groups, online support communities, or one-on-one counselors. You may want to get support from others with lymphedema. It helps to talk to people who understand what you're going through. Call us or contact the National Lymphedema Network (see the "To learn more" section below) to find support groups in your area.

You can't change the fact that you are at risk for lymphedema. What you can change is how you live your life – taking good care of yourself, making healthy choices, and doing what you can to make your body and your mind feel as good as possible.

## **To learn more about lymphedema**

### **National organizations and Web sites\***

Along with your American Cancer Society, other sources of information and support include:

## **Lymphology Association of North America (LANA)**

Web site: [www.clt-lana.org](http://www.clt-lana.org)

Web site lists therapists, nurses, and doctors who specialize in treating lymphedema

## **National Lymphedema Network (NLN)**

Toll-free number: 1-800-541-3259

Web site: [www.lymphnet.org](http://www.lymphnet.org)

Has patient information on reducing risk and managing lymphedema, offers support and a way to search for professionals who work with people who have lymphedema

*\*Inclusion on this list does not imply endorsement by the American Cancer Society.*

# **Take the quiz**

The following is a self-quiz to help you remember some of the important areas covered here. Try taking the quiz, then look at the answers. If you have any questions, or something is not clear, talk to your doctor or nurse.

### **1. To help prevent and control long-term swelling, you should remember the hand and arm precautions:**

- a. For 6 weeks after surgery and/or radiation
- b. For 6 months after surgery and/or radiation
- c. Until your doctor says you have developed new lymph pathways
- d. Until you feel fine
- e. Forever

### **2. To prevent infection in the affected arm:**

- a. Cut your cuticles every week.
- b. Wear gloves when working with hot or sharp objects.
- c. Use an electric shaver.
- d. Stay out of bright sunlight.
- e. b and c only

### **3. If swelling appears in the affected arm or hand soon after surgery:**

- a. Raise the arm for 45 minutes.
- b. Call your doctor or nurse right away.
- c. Raise and support your hand or arm above the level of your heart, then open and close your hand 15 to 25 times.
- d. a and c only
- e. a, b, and c

### **4. Call your doctor or nurse:**

- a. If the affected breast, hand, arm, or underarm (axilla) feels hot or is red or swollen
- b. If you have a temperature over 100.5° F
- c. If you want to shave your underarm with an electric shaver
- d. a and b only
- e. a, b, and c

## Answers

**1. e – Forever.** Remember these precautions to help protect your arm and reduce your risk of ever getting lymphedema.

**2. e – b and c only.** Wear gloves when working with hot or sharp objects. Use an electric shaver to prevent skin injury. Use a sunblock (SPF 15 or higher) to prevent sunburn. Do not cut your cuticles; use lotion and a cuticle stick instead.

**3. e – a, b, and c.** Call your doctor or nurse. You can also raise and support your arm for 45 minutes and open and close your hand 15 to 25 times. Repeat this 2 to 3 times.

**4. d – a and b only.** Call your doctor or nurse if you have symptoms that might mean an infection, such as if the affected arm or underarm feels hot or is red or swollen, or if you have a fever that is not related to a cold or flu.

Last Medical Review: 3/1/2012

Last Revised: 3/1/2012

2012 Copyright American Cancer Society

For additional assistance please contact your American Cancer Society  
1 · 800 · ACS-2345 or [www.cancer.org](http://www.cancer.org)