Women who have been treated for breast cancer may be at risk for lymphedema, or arm swelling in the treated arm. Most women who have had breast cancer surgery will not develop this side effect. This information sheet describes what lymphedema is, the steps you can take to lower your risk, and what signs to look for. It is not possible to predict who will get lymphedema, but recognizing it early and treating it promptly is the best way to manage it.

What is Lymphedema?

Our bodies have a network of lymph nodes and lymph vessels that carry and remove lymph fluid, similar to the way blood vessels circulate blood to all parts of the body. The lymph fluid contains white blood cells, which help us fight infections. During surgery for breast cancer, the doctor usually removes some of the lymph nodes from the underarm area to see if the cancer has spread. Some lymph vessels that carry fluid from the arm to the rest of the body are removed also, because they are intertwined with the nodes.

![Axillary lymph nodes](image)

Lymph node areas adjacent to breast area.

- **A** pectoralis major muscle
- **B** axillary lymph nodes: levels I
- **C** axillary lymph nodes: levels II
- **D** axillary lymph nodes: levels III
- **E** supraclavicular lymph nodes
- **F** internal mammary lymph nodes

Figure 1. Axillary lymph nodes. 
Source: BreastCancer.org
The removal of lymph nodes and vessels changes the way the lymph fluid flows within the treated arm. This change makes it more difficult for fluid in the arm to circulate to other parts of the body. If the remaining lymph vessels cannot remove enough of the fluid in the breast and underarm area, the excess fluid builds up and causes swelling, or lymphedema. Radiation treatment also can affect the flow of lymph fluid in the arm and breast area in the same way, putting you at the increased risk of lymphedema.

Lymphedema usually develops slowly over time. The swelling can range from mild to severe, and it can develop soon after surgery or radiation treatment, or many months, or even years, later. Women who have many lymph nodes removed and radiation therapy may have higher risk of developing lymphedema, but it is not fully understood why some patients are more likely to have problems with lymphedema. We still need long-term research to establish lymphedema rates after a sentinel node procedure. Although much remains to be learned about this condition, there are ways that you can care for the arm and breast area to reduce your chances of having future problems.

**How to Watch for Lymphedema:**

- If you have had lymph nodes removed or radiation treatment, you may want to examine your upper body in front of a mirror and note the size of the surgical side to the non-surgical side. If you note swelling on the treated side call your doctor or nurse.

**Signs of Lymphedema**

The signs of lymphedema may include:

- Arm feels full or heavy
- Swelling
- Skin feels tight
- Less movement or flexibility in the hand, wrist, elbow or shoulder
- Difficulty fitting the arm into jacket or shirt sleeves
- Ring, watch, and/or bracelet feels tight but you have not gained weight
- Burning, tingling, or feeling as if the limb is bruised.

**Practical Considerations for Prevention of Lymphedema in the Treated Arm**

1. Keep your skin clean. Wash the arm at least once a day.
2. Avoid injury and infection of the hand and arm:
   - Dry your hands thoroughly and use lotion to keep your arm and hand from getting dry.
   - Use an electric razor for shaving.
   - Use rubber gloves for housework when using cleaning products.
   - Wear oven mitts or use hot pads when cooking.
   - Wear cloth or leather gloves and long sleeves when gardening.
- Use a thimble when sewing.
- Wear gloves to avoid scratches from pets.
- Maintain good nail care; push cuticles back (do not cut them).
- Avoid needles (shots, vaccinations, blood draws, IV fluid administration) into the treated arm.
- Use the opposite arm to test temperature of water to avoid burns.
- Clean breaks in skin with soap and water right away, then use antibacterial ointment.
- Use caution with tape/band aids on skin and with tape removal.
- Avoid prolonged and strenuous work with that arm; rebuild your strength gradually.

3. Avoid constrictive pressure on the arm:
   - Wear loose jewelry and clothes with no constricting bands
   - Do not use elastic bandages with constrictive bands.
   - Use of blood pressure cuff on that arm.

4. Watch for signs of infection in your arm, e.g., redness, pain, heat, swelling, fever. Call your doctor immediately for prompt antibiotics if signs of infection occur. Consult your doctor about rashes should they occur.

5. Keep regular follow-up appointments with your doctor.

6. Eat a well-balanced, protein-rich, low-fat, low-salt diet. People who are overweight are at higher risk for getting lymphedema.

7. Drink plenty of water.

8. Avoid long baths, hot tubs, and saunas.

9. Get regular exercise. Walk, swim or bike at least 5 times a week. Start out with a few minutes and build up gradually to 30 minutes each time.

10. Wear a compression garment during air travel.

11. Carry your handbag on the opposite shoulder or use a fanny pack instead.

12. Avoid straining that arm by not lifting a weight that is uncomfortable. We recommend that you use good judgment and that you take note of what activities, if any, you feel bother your arm.

The list describes valid things to be careful about, though there may be situations that require you or your physician to override these precautions to perform a necessary procedure, or achieve a necessary task. It is very important to remember that precautions are things to be careful about, not things that are absolutely forbidden at all cost. The onset of lymphedema is unpredictable as each body reacts differently to lymph node removal and radiation. Also, lymphedema, in and of itself is not a life-threatening condition. It is never advisable to adhere to a lymphedema precaution if it means refusing a possibly life-saving treatment.
Treatment
Lymphedema cannot be cured, but prompt treatment may minimize the swelling. Please consult your physician to discuss treatment options.

Treatment alternatives may include:

- Physical Therapy
- Use of a compression or elastic sleeve
- Occupational Therapy
- Manual lymph drainage (type of massage performed by a trained therapist)
- Decongestive therapy including massage, wrapping of the limb, exercising of the wrapped limb, and meticulous skin care, which the patient can be taught to do at home.

For More Information
For more information about lymphedema or other issues related to breast cancer, contact the following organizations:

- American Cancer Society
  1-800-ACS-2345 (1-800-227-2345); www.cancer.org
- American Physical Therapy Association, Oncology Section
  1-800-999-APTA; www.oncologypt.org
- National Alliance of Breast Cancer Organizations
  1-888-80NABCO; www.nabco.org
- National Cancer Institute Cancer Information Service
  1-800-4 CANCER (1-800-422-6237); www.nci.nih.gov
- National Lymphedema Network
  1-800-541-3259; www.lymphnet.org
- The Susan G. Komen Breast Cancer Foundation
  1-800-IMAWARE (1-800-462-9273); www.breastcancerinfo.com
- Y-ME National Breast Cancer Organization
  24-Hour National Breast Cancer Hotlines 1-800-221-2141 (English); 1-800-986-9505 (Spanish); www.y-me.org

Sources: American Cancer Society, Indiana American Cancer Society, Cancer Lifeline, UW Cancer Center

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SCCA Patient and Family Education Department

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