

Lymphedema/Infection Risk Reduction After Axillary Lymph Node Removal

The lymphatic system is a network of tissues and organs that help rid the body of toxins, waste and other unwanted materials. It is present throughout the human body and consists of lymph vessels, lymph nodes, lymphocytes (white blood cells), and several organs, including your spleen and tonsils. Simply stated, the function of the lymphatic system is to help your body fight infection and to transport cellular waste and excess fluid. Your lymph nodes act as a filter to stop bacteria and cellular waste from entering the blood stream. Any cancer that can invade the lymph nodes or requires removal and/or radiation of the lymph nodes can result in damage to your lymphatic system and lead to swelling, known as lymphedema. This swelling most often occurs in the extremities, though it can also occur in the face, neck, trunk or genitals. Lymphedema is the result of the abnormal accumulation of protein rich fluid in the affected area.

During your surgery, some of your lymph nodes were removed, so you will need to take special care of your arm and trunk to reduce the risk of swelling. Typically, the onset of lymphedema is gradual and its course is progressive. Lymphedema more commonly develops in the first few years after surgery; however, it can develop even decades after cancer treatment is completed. Before swelling is visible, patients often experience early symptoms of lymphedema including a feeling of heaviness/achiness in the arm or trunk, clothes that fit tighter on one side, or jewelry that no longer fits.

Remember: it is normal to have post-operative swelling the first several weeks after surgery. This is not lymphedema; however, if your incisions are well-healed and you are returning to normal activities and then you experience a new onset of the symptoms listed above, please talk with your physician about possible early stage lymphedema.

Research shows that the disease progression can be slowed down through earlier intervention by a lymphedema therapist. There is no cure for lymphedema, so it is important to know how to take care of your body to reduce the risk of its development and/or progression. Even if you have no symptoms of lymphedema, you must remember that your lymphatic system has been partially damaged due to surgery and/or radiation, and therefore, you are more susceptible to infections.

Skin care is very important!

Lymph Nodes Near the Breast

A pectoralis major muscle

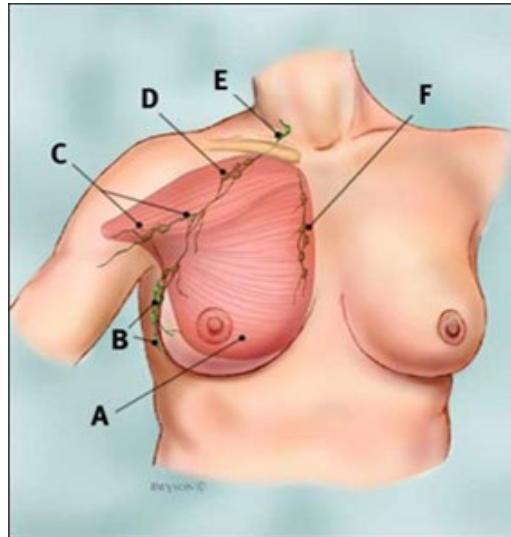
B axillary nodes, level I

C axillary nodes, level 2

D axillary nodes, level 3

E supraclavicular lymph nodes

F internal mammary nodes



Skin Care

- Keep your arm clean. Use a low pH lotion (between 4 and 6) daily to prevent dryness/cracking skin. Examples:
 - Cerave Lotion (pH 5.68)
 - Aveeno Daily Moisturizing Lotion (pH 5.82)
 - Eucerin Original Dry Skin Therapy Lotion (pH 5.97)
 - Cetaphil Daily Advance Ultra Hydrating Lotion (pH 5.65)
- Avoid trauma/injury to reduce infection risk. If you do get a scratch, bite, or break in the skin, wash the area with soap and water and cover with a bandage to keep it clean. Check at least once daily to make sure it is healing well.
- Avoid cutting cuticles when clipping your nails.
- Be cautious when using a razor to avoid nicks and skin irritation. You may want to consider using an electric razor for shaving.
- Do not wear excessively tight jewelry or clothing with tight elastic bands on the arm.
- Use sunscreen and insect repellent to protect your skin from sunburn and insect bites.
- Wear gloves when doing activities that could cause skin damage (i.e. gardening) or when using chemicals, such as detergents.
- Avoid exposure to extremes of temperatures (i.e. hot tubs)

Lifestyle and Activity

- Exercise and physical activity can help prevent or reduce swelling since muscle contractions help to move lymphatic fluid and improve circulation.
- When increasing your activity level or starting an exercise program, slowly increase the repetitions and weight with each activity or exercise. Follow the exercise progression recommended by your physical therapist.
- Monitor your arm for any changes in size, shape, heaviness, tissue texture/firmness - as these can be evidence of lymphedema progression.
- Work to maintain a healthy body weight by eating a balanced, low fat, low sodium diet. If you have concerns about weight management and nutrition, we have a dietician on staff here at Compass Oncology who would be happy to work with you.
- If you have been issued a compression garment, it needs to fit correctly to be effective. Wear as instructed by your physical therapist. Take care of the garment as per manufacturer instructions.

Medical Management

- If you have been diagnosed with lymphedema or you are a patient at-risk for lymphedema and want to learn more about how to reduce your post-operative risk, see a physical or occupational therapist who is certified in lymphedema care and management.
- A "CLT" (certified lymphedema therapist) treats lymphedema at all stages of the disease process. The most common conservative treatment of lymphedema is complete decongestive therapy (CDT), which has two main phases of care:
 - Phase One (intensive): involves frequent clinical intervention that consists of specialized compression bandaging, manual lymphatic drainage, daily skin care, specific lymph drainage exercises, and recommendations regarding compression garments and/or pneumatic compression pumps
 - Phase Two (maintenance): long-term management which consists predominantly of patient self-care and includes compliance with compression garments, self-manual lymphatic drainage, daily skin care, and specific exercises to decrease the risk of disease progression.

Note: Due to the progressive nature of lymphedema, it is at times necessary to repeat phase one care.

Remember:

- Swelling may not occur immediately; it may occur during or soon after treatment or even many years later – *lifetime risk*
- If swollen, avoid activities that cause prolonged positioning of the arm and hand below your heart. If you must have your extremity in a dependent position, follow it with a period of elevation and basic range of motion exercises to help reduce the swelling
- Lymphedema increases the risk of infection, so perform daily skin care as previously noted
- No compression device or elastic sleeve is a stand-alone treatment
- Obesity significantly increases your risk for lymphedema; optimal weight management is *very* important
- Lymphatic microsurgery (lymphovenous bypass or lymph node transplant) is not a cure for lymphedema
- Risk reduction strategies *reduce* the risk of breast-cancer related lymphedema, but they don't prevent it

Myths About Lymphedema

- Airplane travel *causes* lymphedema
 - Note: no current research indicates air travel causes lymphedema; however, some patients do experience exacerbation of lymphedema symptoms with prolonged air travel
 - Based on several factors, your physical therapist may recommend compression for extended airplane travel
- Diuretics can improve lymphedema
- You should not exercise an arm with lymphedema
- A compression garment prevents swelling
- Never get a blood pressure taken on the at-risk limb

Howe, N.L. (2017, Dec 14). Conquer the Patient Voice. *Managing Lymphedema Associated with Breast Cancer*. Retrieved from <https://conquer-magazine.com>

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