

## Lymphedema: Prevention and Treatment for the Leg

### Lymphatic System

The lymphatic (or lymph) system is a network of lymph vessels, tissues and organs that carry lymph fluid throughout the body.

Normally, lymph nodes filter fluid as it flows through them, trapping bacteria, viruses and other foreign substances. Without normal lymph drainage, fluid can build up in the affected part of the body, and lymphedema can develop. Lymphedema is a type of swelling that happens when the lymphatic system becomes blocked and is not able to take the lymph fluid back to the heart.

### Lymphedema

Lymphedema is a buildup of fluid that occurs when fluid drained by the lymph vessels does not flow out of the leg and trunk on your affected side. This fluid buildup may result in swelling. Lymphedema may occur when some of the lymph nodes in the groin or pelvis (abdomen) are affected by cancer, removed during surgery or treated with radiation.

Although it is not always clear why some people develop swelling and others do not, it is sometimes related to infection, injury or trauma involving the leg. Lymphedema can occur 2 to 3 months or even years after surgery or radiation treatment.

With improvements in surgery and radiation therapy, lymphedema is less likely to occur today. Although most patients have a low risk of developing lymphedema, it is important for you to be aware of this possible complication and what you can do to prevent it. Lymphedema can improve with treatment.

If you notice swelling below your waist to the foot, call your doctor or your medical team **right away**. You may be referred to Rehabilitation (Rehab) Services for the management of lymphedema. Early treatment is important in preventing complications.

### Help with Lymph Drainage

**Follow these guidelines to promote good lymph drainage:**

- Maintain full active range of motion in the affected leg and foot
  - Full range of motion will maximize use of muscles to assist with lymph drainage. Your therapist can provide range of motion exercises.
  - Perform specific exercises that are designed to improve lymph drainage. Your therapist can provide these exercises.
- Maintain an active lifestyle and avoid being sedentary

- Prevent trapping more fluid in the affected leg or trunk
  - Wear proper-fitting clothing around the waist, groin and upper thigh area or proper-fitting socks that do not leave a deep indentation.
  - Wear properly fitted foot wear.
  - Avoid crossing your legs or sitting for extended periods of time.
  - Stand up or change your position from time to time.
- Prevent tiring the leg
  - Avoid doing activities that require sudden excessive force or strain on your affected leg.
  - Avoid activities that require prolonged or repetitive use of the leg.
- Elevate your leg when resting
  - Rest your leg on an ottoman when you are seated or place a pillow under your leg to raise it slightly while you sleep.
- Reduce the risk of swelling during long car trips or airplane flights
  - Drink plenty of water.
  - Stand and/or stretch when it is safe to do so.
  - Perform ankle pumps or rotations and breathing exercises every 2 hours.
  - Wear a compression garment/bandages when flying.

## Infection and Injury Precautions

Infection or injuries may trigger the onset of lymphedema. Lymphedema may become worse if your leg is infected or injured. Follow these precautions:

- If possible, use your unaffected leg for blood draws, and when receiving vaccinations or injections. If you need a medical procedure on your affected leg, such as removing skin growths, ask your medical team first.
- Avoid exposing your skin to extreme temperature.
  - Reduce exposure to excessive heat, such as saunas, whirlpool spas or extremely hot showers.
  - Refrain from applying ice directly on the skin of the affected leg.
  - Try to cool yourself down if you are overheated. For example, place cool towels over the leg for short periods of time; move to an air-conditioned/climate-controlled area.
- Prevent burns to the affected leg.
  - Protect the affected leg from sunburn by using a sunscreen with a sun protection factor (SPF) of 15 or higher and by wearing sun protective clothing that cover your legs.
- Avoid cuts and scratches to the affected leg.
  - Use an electric shaver when shaving your legs. Avoid using cream or lotion to remove hair or waxing.
  - Wear appropriate footwear and long pants while doing work, such as gardening, that may cause scratches or cuts.
  - Use insect spray to help prevent insect bites.

- Treat cuts, burns, insect bites and scrapes right away. Wash them thoroughly, apply an antibacterial ointment and cover with a bandage. Consult with your medical team on the appropriate antibiotic ointment.
- Avoid dry skin and infection
  - Apply a moisturizing lotion after washing to prevent your legs from becoming dry or cracked.
  - Do not cut the cuticle on your affected foot. Use cuticle softener cream and gently ease the cuticle back with a cotton-tipped swab.
  - Keep your nail edges smooth.
  - Check your toenails for signs of a fungal infection (discoloration, thickening, crumbling edges or cracks).
  - Contact your medical team if your toenails become infected or show signs of a fungal infection.

## Special Precautions

**Call your doctor right away** if your abdomen, buttock, leg, or foot shows signs of infection, such as:

- Red streaks on the abdomen, buttock, leg, or foot
- Warmth, redness, pain, swelling on abdomen, buttock, leg or foot
- Heaviness or constant aching in the buttock, leg, or foot
- A fever of 100.4° F (38° C) or higher

If you notice swelling, contact your medical team for a referral to Rehab Services. Physical therapists, who are certified in lymphedema management, can customize a comprehensive program for you to help manage lymphedema. This includes education, exercises, compression bandaging, manual lymphatic drainage therapy and fitting of compression garments.

For more information, contact Rehab Services at 904-202-7300