What is lymphoedema?

Lymphoedema is swelling of the tissues under the skin that may occur after lymph node surgery as a result of an interruption or blockage of the lymphatic system. Lymphoedema most commonly occurs in the arm or leg, but can also affect other body parts, e.g. chest wall, breast or pubic region. Lymphoedema affects only a small number of patients but can have a lasting impact on quality of life when it does occur. Early diagnosis and intervention may help to minimise its impact.

The lymphatic system and lymphoedema

Lymph is fluid that escapes from the blood vessels into the tissues as part of the normal (physiological) process of fluid circulation in the body. It travels in a network of lymphatic vessels that eventually return this fluid to the bloodstream.

Lymph nodes function as filters along these lymphatic vessels; they trap bacteria and cancer cells and also help the body mount an immune response to infection or cancer. Lymph nodes are commonly found clustered together, particularly in the neck, armpit (axilla) and groin. Nearly all parts of the body have lymphatic drainage to a specific lymph node or several nodes. The pattern of lymph fluid drainage is different for each individual. The sentinel node/s are the first lymph nodes along the lymphatic vessels that drain lymph fluid from the part of the skin that has a melanoma on it.

Lymphoedema occurs when there is a breakdown or blockage in the lymphatic drainage system resulting in some of the lymph fluid remaining in the tissues, causing swelling. A swollen limb may look distorted, interfere with function and cause discomfort.
The incidence of lymphoedema following treatment for melanoma varies with the extent of surgery and whether radiotherapy is used. Pre-existing patient factors such as body weight and the person’s natural resistance to lymphoedema also impact on the frequency of lymphoedema. People of all ages can be affected.

Early swelling can usually be successfully managed and reversed, but if left untreated, the fluid can be more difficult to move, making the tissue feel hard and thick.

### Symptoms and management

Symptoms of lymphoedema include:
- swelling of the affected limb/body area
- a feeling of heaviness, tightness, aching or pain in the affected limb/body area
- tightness of shoes, clothing, jewellery.

Swelling in the first few weeks after surgery is often NOT lymphoedema but part of the reversible inflammatory process following surgery.

Most patients who develop lymphoedema do so within the first twelve months following melanoma treatment, but a few develop lymphoedema many years after melanoma treatment, usually as a result of infection, trauma or disease recurrence.

### Treatment

Lymphoedema can be managed to reduce symptoms and minimise its impact on quality of life. Minimal lymphoedema can usually be controlled with a well-fitted compression stocking or sleeve.

More severe swelling may require a program of care called Complex Decongestive Therapy. Included as part of the program are:
- **Compression techniques**, including prescribed compression garments and multilayer bandaging
- **Massage**, or manual lymphatic drainage, which involves long, slow, gentle stroking of the skin that aims to move fluid to the unaffected areas and into the circulation
- **Exercises** where the muscular action helps propel lymph through lymphatic channels
- **Skin care** to keep the skin intact and free of trauma that may result in an infection.
Precautions and preventative care

Some simple tips to help prevent lymphoedema are:

• keeping the skin healthy and unbroken
• avoiding injury to the skin that could result in infection
• offering the unaffected limb for invasive medical procedures, e.g. injections, blood tests
• seeking advice promptly if the limb sustains an injury and the wound looks infected (antibiotics may be required)
• moisturising the skin to prevent dryness or irritation
• drying feet thoroughly to avoid fungal infections (tinea)
• avoiding insect bites by using insect repellent when outdoors
• preventing sunburn
• using compression garments and performing frequent exercise during long-haul travel if you have undergone extensive lymph node surgery.

To avoid disruption to lymph flow:

• use your arm/leg as normally as possible
• maintain a healthy body weight
• avoid tight clothing, shoes and jewellery
• find activities that improve lymphatic flow – these may vary between individuals, e.g. swimming, bike riding or light weights may work for some people but not others.

Lymphoedema can be managed; advice and support are always available.

For further information about lymphoedema clinics, ask your doctor or refer to the list of practitioners accredited with the Australasian Lymphology Association at lymphoedema.org.au.