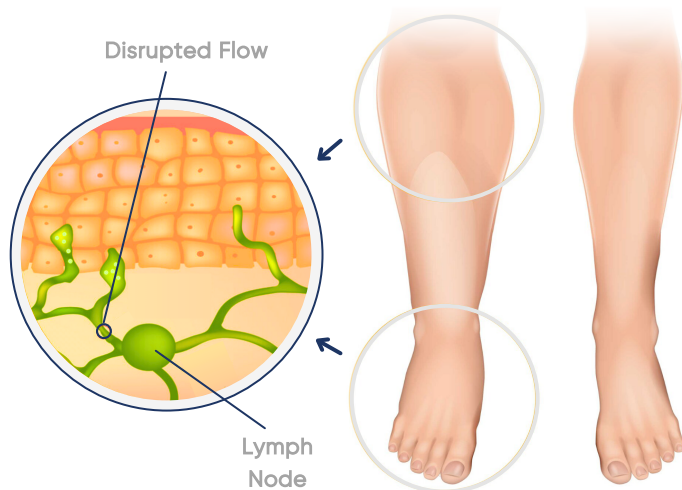


What Is Lymphoedema?

Lymphoedema is a medical condition that occurs when there is a blockage or damage to the lymphatic system, which is responsible for draining fluids from the tissues in your body. This results in a buildup of lymphatic fluid, causing swelling and discomfort in the affected area. Lymphoedema can occur in any part of the body but is most commonly seen in the arms and legs. It can be caused by a variety of factors, including surgery, radiation therapy, infection, and genetics.



How Does Lymphoedema Present?

Lymphoedema should be considered in patients who have swelling of a body part that has persisted for more than three months (or earlier if it is associated with surgical removal of lymph nodes). It may be associated with a feeling of heaviness and aching, and in the beginning, the swelling may fluctuate in severity from day to day.

What Are The Causes?

There are two main types of lymphoedema:

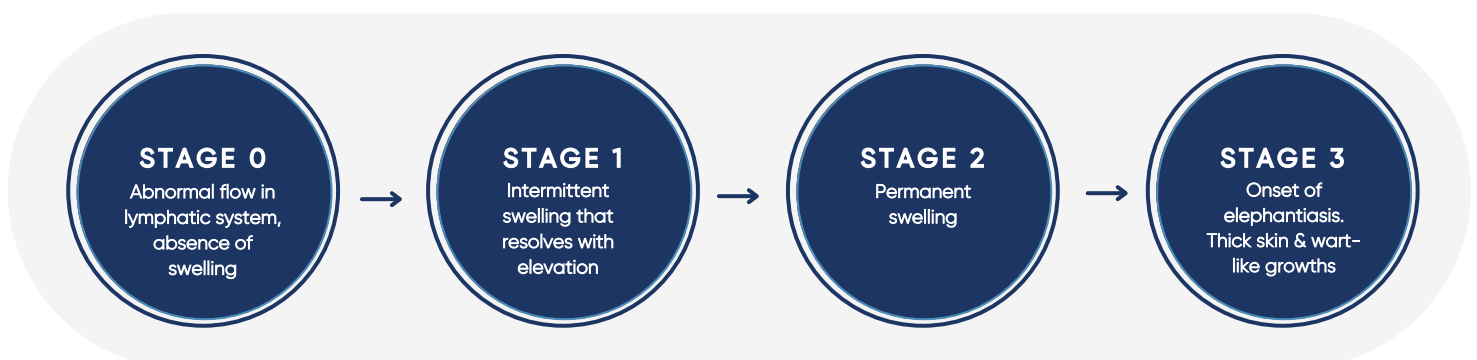
Primary Lymphoedema

- **Congenital abnormalities** or malformation of the lymphatic system (presenting under two years of age)
- **Late-onset** due to underlying malformation (presenting over 2 years of age)
- **Syndromal conditions:** lymphoedema-distichiasis, Klippel-Trenaunay syndrome and Prader-Willi syndrome, among others

Secondary Lymphoedema

- **Trauma and tissue damage:** lymph node excision, radiotherapy, burns, varicose vein surgery, wounds
- **Malignant disease:** lymph node lymphoma, pressure from large tumours
- **Venous disease:** chronic venous insufficiency/ulceration, post-thrombotic syndrome
- **Infection:** cellulitis/erysipelas, lymphadenitis, filariasis
- **Inflammation:** rheumatoid arthritis, dermatitis, psoriasis, sarcoidosis
- **Medications:** including calcium channel blockers, corticosteroids, NSAIDs, pregabalin, taxanes
- **Other:** Obesity, lipoedema, dependency oedema, paralysis

Stages of Lymphoedema



Red Flags

When diagnosing lymphoedema, other causes of swelling must be excluded when the following red flags are present

- Sudden swelling
- Pain as main complaint
- Skin colour change
- Lumps, sores & ulcers
- History of unmonitored cancer
- Paraesthesia (numbness & tingling)
- Prominent veins in the swelling region

Investigations



1

Lymphoscintigraphy

Lymphoscintigraphy is a nuclear medicine procedure used to demonstrate lymphatic morphology and function. It is particularly useful when the cause of swelling is unclear.



2

New Imaging Techniques

These can include indocyanine green fluoroscopy (ICG), which can be used to map the superficial lymphatics. This can be useful in difficult clinical cases.



3

Ultrasound

Ultrasound, Doppler ultrasound, MRI & CT can be useful to exclude differential diagnoses and also to assess for local area tissue changes

Treatment

The best treatment will involve a multimode regime.



Skin care – Cleansing and moisturising provides a barrier and encourages lymphatic flow. Regular checks for fungal infections and cellulitis are also beneficial



Exercise – Encourages lymph flow and is important for weight management. Hydrostatic pressure using hydrotherapy is also recommended



Compression – This is used initially in the form of bandaging to reduce swelling. Compression garments can then be used to maintain this reduction



Manual lymphatic drainage – This is a specific decongestive massage technique to help move fluid away from congested areas



Education – Engagement of patients in their self-management regimen is crucial

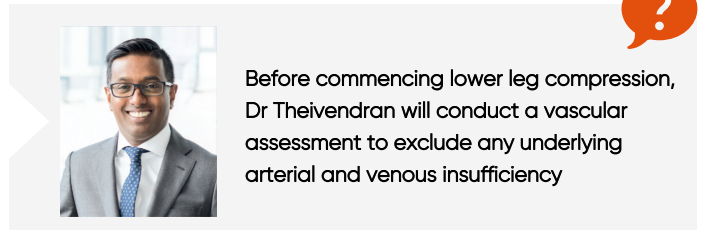
Compression

Contradictions for compression include:

- Arterial Insufficiency / Peripheral Arterial Disease
- Uncontrolled Heart Failure
- Severe Peripheral Neuropathy (e.g. diabetes)

Newer compression treatments are constantly emerging, including:

- Sequential Intermittent Pneumatic Compression
- Low-Level Lazer
- Negative Pressure
- Lymph Taping



Before commencing lower leg compression, Dr Theivendran will conduct a vascular assessment to exclude any underlying arterial and venous insufficiency

The GP's Role

The general practitioner (GP) plays an important role in managing the long-term care of patients with lymphoedema. The GPs role includes reinforcing:

- Good skincare
- Exercise
- Antibiotic use
- Massage
- Travel precautions

GPs can help form a strong multidisciplinary team that may include a lymphoedema specialist, podiatrist, dietitian, and psychologist.



Lymphoedema of the left hand

Finding a Lymphoedema Practitioner

Lymphoedema practitioners are healthcare professionals who specialize in lymphedema management. They may include physiotherapists, occupational therapists, nurses, and remedial massage therapists who have completed lymphedema management training accredited by the Australian Lymphology Association (ALA). They can be found in larger public hospitals with lymphedema services and as private practitioners.

Surgical Intervention

New treatments are available for the surgical management of lymphedema. These can include:

1 Treating Venous Insufficiency

- **Venous stents:** Opening veins for blood to flow through the blocked or narrowed vein.
- **Venous ablation:** To close off varicose veins which result in fluid build up

2 Treating Arterial Insufficiency

- **Angioplasty:** Inserting a catheter with a balloon or stent into the artery to open a narrowed or blocked artery.
- **Bypass surgery:** Creates a new pathway for blood to flow around blocked or narrowed arteries.

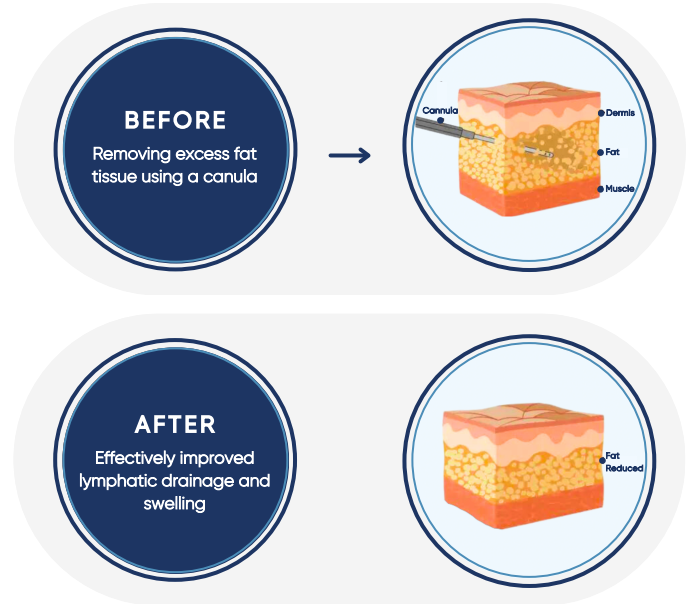
3 Liposuction

- A surgical procedure that removes excess fat from the body. It can be used to reduce the amount of fatty tissue in areas affected by lymphoedema, which can help improve lymphatic flow and reduce swelling.



It's important to note that surgical interventions for lymphoedema are typically considered a last resort and are only recommended for patients who have not responded to conservative treatment.

Liposuction Process



Normal leg



Mild edema



Moderate to severe edema

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Frenchs Forest NSW 2086

The PARKWAY San Clinic
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172 Fox Valley Rd
Wahroonga NSW 2076