

True lymphedema is swelling caused by abnormality in the lymphatic system. Lymphedema can also co-exist with other medical and swelling conditions. Correct diagnosis of lymphedema may require evaluation by a physician. The initial lymphoedema caused by filariasis is reversible with filaricidal drugs but once secondary infection has set in, the disease enters a chronic irreversible stage. Lymphedema due to other causes like cancer and venous disease follows similar common pathway (Figure 1).

Early diagnosis is important since treatment is most effective when lymphedema is diagnosed at the earliest stage. Diagnostic tests for lymphedema come under the following categories:

- History and physical examination
- Soft tissue imaging
- Lymph vessel and lymph node imaging helps mapping of lymph flow. Injected nuclear dye (Lymphoscintiscan), and Fluorescent dye (Indo Cyanine green) is mapped through special cameras. Dyes traceable through MRI are not yet available in India.
- Measures of volume done traditionally through water displacement techniques is now replaced by perimetry and computer software,
- Changes in electrical conductance

- Changes in biomechanical properties
- Genetic testing
- Other vascular imaging Ultrasound Doppler helps to identify venous problems which frequently may occur as a cause or effect. MRI also helps distinguish excessive fat (lipedema) as a cause.
- Blood tests for other conditions that can look like lymphedema. Lymphedema has no cure but can be successfully managed when properly diagnosed and treated. Long term management programs like for any other chronic disease are required. The most dreaded components which worsen the disease are repeated attacks of cellulitis also called adeno dermal lymphangitis (ADLA). Skin care, control of fungus, as well as antibiotics especially penicillin are needed to prevent as well as prevent such episodes,

Complete decongestive therapy (CDT) (also called combined, complex or comprehensive decongestive therapy) is considered the “gold standard” of treatment.

Effects of CDT are to decrease swelling, reduce the risk of cellulitis, increase lymph drainage from the congested areas, reduce skin and subdermal fibrosis, enhance patient’s functional status, relieve pain and discomfort, improving quality of life.

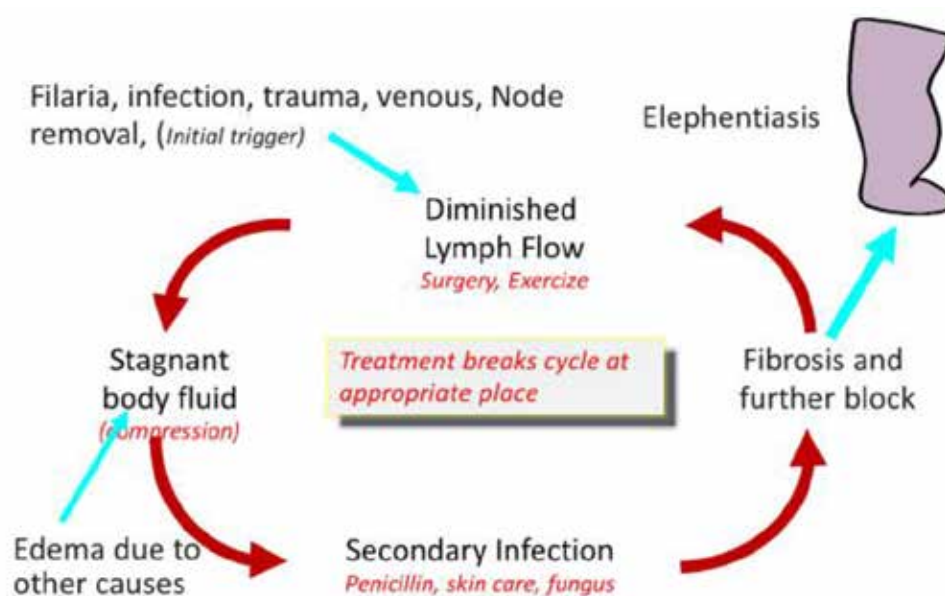


Fig. 1: Progress of Lymphoedema

1068 Components of CDT are:

1. manual lymph drainage (MLD)
2. multi-layer, short-stretch compression bandaging
3. lymphatic exercise
4. skin care
5. education in lymphedema self-management, and elastic compression garments
6. Intermittent Pneumatic Compression Therapy (IPC) is also used as an adjunct.

CDT programs should be individualized based on the presence of other medical conditions or patient abilities. Patients with wounds, scars, or musculoskeletal conditions; palliative care patients; or patients with post-radiation fibrosis may require adaptations of CDT. If

there is limited mobility of the body part with or near the swelling, the patient may require other therapies, such as scar massage or myofascial therapy, in addition to CDT, to have a benefit from CDT.

Surgery for lymphedema is not curative, but it has been used in specific circumstances for control of a severe condition. Circumstances where surgery may be considered are: reducing the weight of the affected limb, minimizing the frequency of inflammatory attacks, improving cosmetic appearance, or fitting the limb into garments. Many surgical procedures available that have been used for lymphedema: (a) excisional operations, including debulking and liposuction, (b) tissue transfers, and (c) microsurgical lymphatic reconstruction. Only few surgeons perform these procedures. Conjunction with CDT is almost mandatory.