

LYMPHOEDEMA :

MULTIDISCIPLINARY APPROACH

FROM THE EXPERT

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Lymphoedema (LO) is characterised by an **accumulation of fluid and protein in the tissues, resulting in an increase in volume often associated with skin changes**. It can occur in the lower and upper limbs, face, trunk, breast, abdomen or genitals. Lymphoedema should not be confused with oedema or lipoedema. Lymphoedema is **not painful in 80% of cases** with normal temperature. Patients often experience uncomfortable tightness and heaviness, with a significant volume increase with exertion. Oedema gradually progresses from a fluid phase to a thickening of the skin (fibrosis). If it is significant, it can become a real handicap for regular daily activities.



THERE ARE TWO TYPES OF LYMPHOEDEMA:

■ **Primary lymphoedema:** caused by a malformation or developmental disorder of the lymphatic system. It can occur at birth, at puberty or much later, and in 2/3 of cases, in women. It is a rare disease (1 in 10,000 people before 20 years).

■ **Secondary lymphoedema:** caused by an obstruction or degradation of the lymphatic vessels as a result of cancer, surgery or parasites (filariasis; 120 million infected people worldwide) or very advanced venous insufficiency or obesity.

LYMPHOEDEMA CAN BE CLASSIFIED INTO *THREE STAGES:*

Stage I (reversible): fluctuating oedema that may be alleviated when the limb is lifted; no secondary tissue damage.

Stage II (spontaneously irreversible): permanent oedema with fibrosis-related skin changes.

Stage III Elephantiasis: disappearance of the depressive nature of the oedema and skin changes (hyperkeratosis, etc.). Oedema can become very disabling, both functionally and psychologically.



WHAT ARE THE *TREATMENTS?*

A multidisciplinary approach is used to address this chronic disorder, with the aim of reducing the oedema and preventing its progression to an advanced stage and all its complications.

MEDICAL TREATMENT:

Consists of **treating the dermatological and/or infectious complications and preventing recurrences.**

Among the complications, dermo-hypodermatitis is a skin infection to watch out as it causes high fever, pain, redness and swelling. It is a medical emergency requiring treatment with antibiotics before resuming physical treatments. Skin care is essential, but any dental, urinary or gynaecological infection must also

be controlled. Prevention involves patient education (healthy lifestyle, weight control, etc.).

SURGICAL TREATMENT:

Includes the removal of warts or lymphatic vesicles, resection of excess skin after physical reduction with appropriate physical therapy, liposuction of excess fat after reductive treatment, lymph node transplantation.

PHYSICAL TREATMENT:

According to the recommendations of the HAS, physical treatment has THREE objectives:

1. Volume reduction through intensive decongestive physiotherapy. This phase can be carried out in a specialised environment (Intensive Decongestive Treatment Centre in Montpellier, Paris, Angers, Grenoble, Lyon, Mâcon, Nantes, Toulouse, Tours, Villefranche-sur-Saône, Orléans, Mulhouse, Nice, etc. Not an exhaustive list).

2. Maintenance of the volumetric reduction by a maintenance phase

3. Treatment follow-up and prevention of complications through patient therapeutic education. A therapeutic plan must be developed for the patient, the doctor and the physiotherapist, taking into account the degree of severity of the LO, the disability generated by the oedema, the at-home therapeutic options, the psychological, economic and social objectives and patient factors. It is important to avoid aggravating the LO, to recover and maintain the mobility of the limb and to reduce the aesthetic damage. This is why different complementary techniques can be combined at the time of treatment, tailored to the patient. The frequency and type of care depends on the stage.

« A THERAPEUTIC
PLAN MUST
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FOR THE PATIENT,
DOCTOR
AND
PHYSIOTHERAPIST »

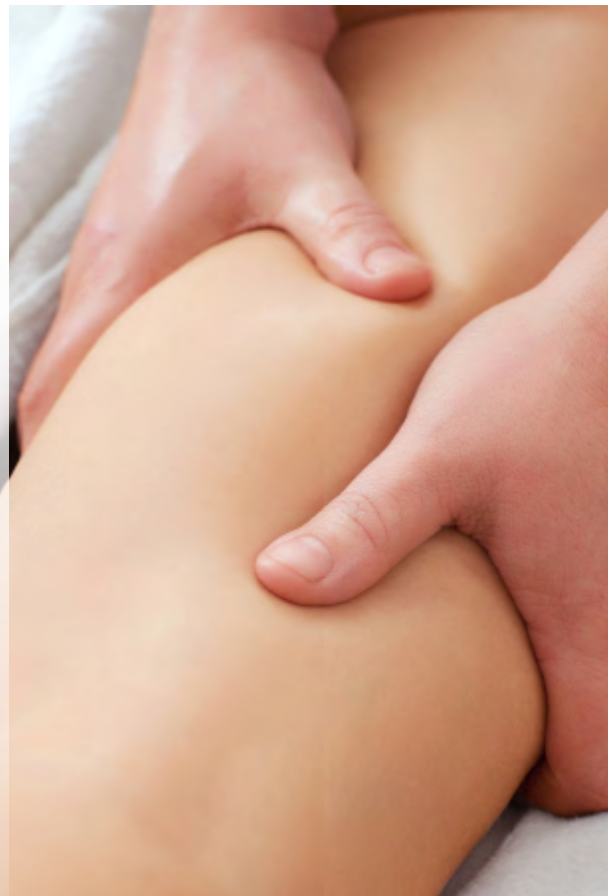


THERAPEUTIC PLAN	REDUCTION PHASE	MAINTENANCE PHASE	AUTONOMY PHASE
Duration	Daily for 5-10 days	Three times, twice and then once per week for one quarter	Once or twice a month more or less fast depending on the patient's motivation
Goals	<ul style="list-style-type: none"> Recover shape, mobility and function of the limb Psychological well-being Prevent complications 	<ul style="list-style-type: none"> Stabilize the volume Adapt an individual lifestyle 	<ul style="list-style-type: none"> Maintain what has been learned Increase patient independence
Means	<ul style="list-style-type: none"> Manual Lymphatic Drainage Skin care Compression bandages Muscle exercises 	<ul style="list-style-type: none"> Manual Lymphatic Drainage Self-bandaging Compression sleeve 	<ul style="list-style-type: none"> Self-drainage Night sleeve Combinations

THE THERAPEUTIC STRATEGY INCLUDES:

Manual Lymphatic Drainage (MLD)

We start with two or three sessions of overall drainage to stimulate the lymphatic system and more particularly the neurovegetative system. Then, we continue with segmental drainage on the affected limb by adapting the technique based on the assessment. In case of fibrous oedema, pulp-kneading manoeuvres are done in a much more sustained manner. Above all, we may use instrumental techniques, such as vacuotherapy and even more **medical endermologie®**. These allow the tissue to be grasped and mobilised much more easily and efficiently, without friction. A physiotherapist's hands are very valuable and must be protected!





TEMPORARY COMPRESSION BANDAGES

Bandages are essential for an effective and rapid reduction in volume, to optimise the effects of drainage, to limit the volume progression and to increase the resorption of the oedema. There are multiple types of bandages (daytime and/or nighttime wear). Bandaging techniques require a learning process for the physiotherapist and then for the patient. The exercise phase under the bandage is essential for increasing the effect of the bandage and for toning the muscles under the oedema.

COMPRESSION GARMENTS

Whether standard or custom-made, for day or night, these garments are adapted to the location and the stage of recovery of the lymphoedema. The most suitable solution for the patient's lifestyle should be offered. An acceptable level of compression should be chosen, and then the level of compression should be gradually increased for greater effectiveness. The strongest tolerated compression should also be offered and threading aids may be used.



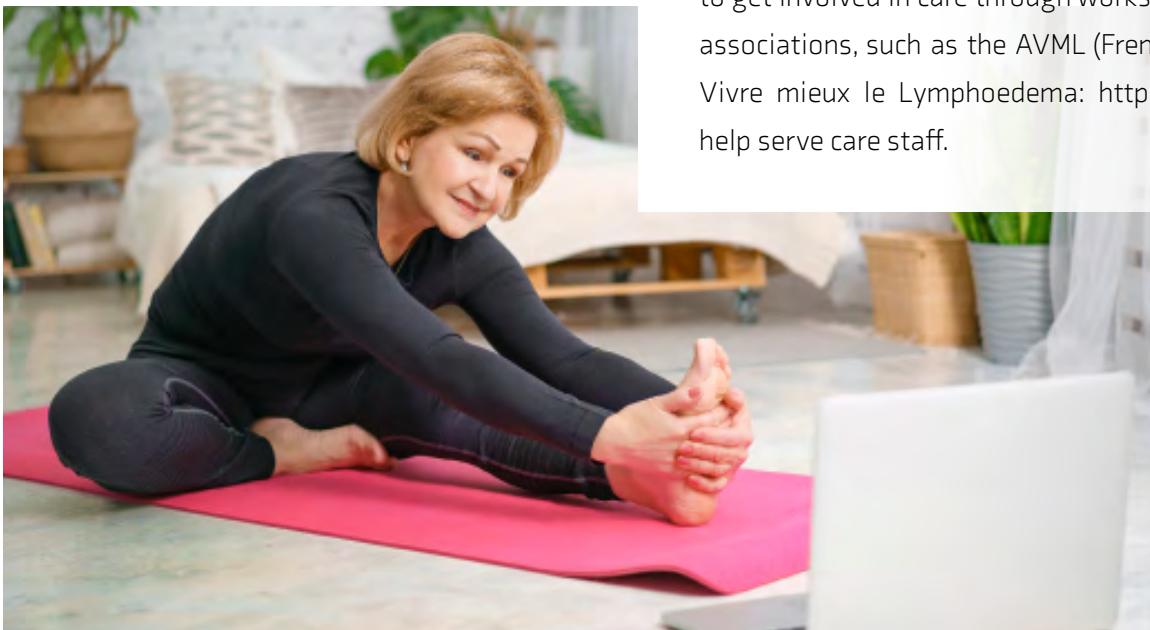
MECHANICAL DEVICES

These include:

- Pressure therapy with mobilising equipment: to be applied at a later stage, when there is no more oedema on the trunk or at the root of the limb.
- Vacuotherapy and **medical endermologie®** treatments to reinforce the effectiveness of tissue mobilization on indurated areas. **Specific endermologie® protocols are used in the reduction phase to work on fibrosis and also in the maintenance phase to maintain the softness of the oedema.**



At the end of the intensive treatment phase (often daily), the physiotherapist will alleviate the patient's sessions, to move on to the maintenance phase once every two or three days. The physiotherapist will make a lighter bandage that the patient will have to keep on until the final compression orthosis prescribed by the general practitioner is made. The specialist pharmacist or orthotist also has a key role to play, as the choice of equipment is particularly difficult, yet important and crucial to the success of the treatment. The compression brace is worn from morning to night. Night bandages are often added to this phase of treatment, and then the therapist may prescribe nightwear to promote independence.



The last phase (patient education) is a partial withdrawal from the physiotherapy office. Patients must learn how to care for themselves. They must learn self-care, including self-drainage and self-dressing. It is advisable to make the patient engage in physical activity compatible with their lymphoedema, such as water fitness. Considering the psychological handicap of a chronic pathology, it may be necessary to direct the patient toward yoga, relaxation or meditation activities.

Highly motivated patients will be able—if they wish—to become experts. (To do this they must complete specialised training before continuing on to a Bachelor's or Master's degree in education.) This expert training can give them the opportunity to get involved in care through workshops in patient associations, such as the AVML (French Association Vivre mieux le Lymphoedema: <https://avml.fr/>), or help serve care staff.

LYMPHOEDEMA IS A VERY SERIOUS CONDITION, PARTICULARLY WHEN IT OCCURS AFTER CANCER. THE PATIENT SHOULD BE CARED FOR BY A MULTIDISCIPLINARY TEAM, AND EVEN IF THEY BECOME INDEPENDENT, THEY MUST HAVE REGULAR, MONTHLY SESSIONS WITH A PHYSIOTHERAPIST.