

Scientific Summary – Latest news from science

German S2k guideline – Diagnostics and therapy of lymphoedema: The most important therapy recommendations at a glance

AWMF registry number 058-001

Responsible: Association of German speaking lymphologists

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German S2k guideline – Diagnostics and therapy of lymphoedema

Under the leadership of the association of German speaking lymphologists the guideline summarises the diagnostics and therapy of lymphoedema on the basis of scientific evidence.

According to the S-classification the current guideline corresponds to a S2k guideline and therefore was upgraded compared to the old guideline version of the classification “S1”.

The complete English version of the guideline can be found online on the AWMF website (<https://www.awmf.org>).

In the following a selection of the most important recommendations regarding the therapy is listed.¹

1 The Complex Decongestive Therapy (CDT) is the standard therapy of lymphoedema:

1a) CDT therapy consists of the following phases:

- The decongestion phase is aimed at ***mobilising the increased interstitial fluid to normalise tissue homeostasis.***
- Often, fluctuations develop in patients with lymphoedema, therefore, the aim of this phase is to ***maximise effects of intensive therapy*** and to ***stabilise these fluctuations (transition phase).***
- The aim of ***the maintenance phase*** is ***maintenance and optimisation of the therapeutic success.***

1b) CDT consists of the following coordinated components:

- ***Manual lymphatic drainage***, complemented if required by additional manual techniques
- ***Compression therapy*** with specific multi-layer compression bandage systems and / or lymphological compression stockings
- ***Skin care*** and, if required, treatment of skin diseases / skin lesions
- ***Decongestive sports and exercise therapy***
- ***Information and instruction on self-treatment***

- ➔ **CDT represents a coordinated therapeutic concept for the treatment of lymphoedema.**
- Isolated application of single components is not recommended; Complex Decongestive Therapy (CDT) should be used in its entirety.*

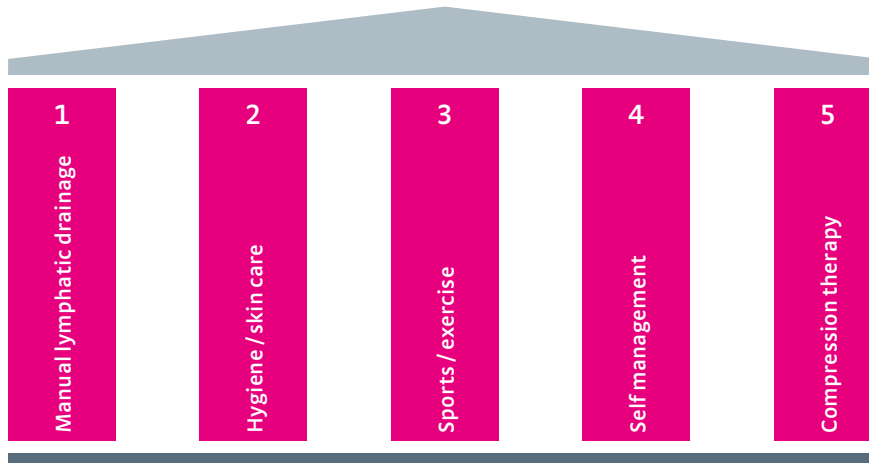


Fig. 1: The five pillars of CDT

- 2** An essential component of CDT is compression therapy with the following effects:
- Normalisation of the pathologically increased ultrafiltration with consecutive reduction of lymphatic waste products
 - Increased influx of interstitial fluid into initial lymph vessels
 - Movement of the fluid through the tissue channels
 - Increased lymph flow in the lymph vessels that are still working sufficiently
 - Reduction of venous pressure resulting in an antioedematous effect
 - Improving the tissue status in the transition and maintenance phase

Further recommendations:

Decongesting exercise and breathing therapy

- *Muscle and joint pumps are activated by specific exercises: Contraction of the skeletal muscles increases interstitial pressure and thus the motor activity of the lymphatic drainage system. This effect is intensified by simultaneous external compression.*
- *Intensive breathing therapy increases both venous blood flow and lymph flow.*
- *Exercise and physical activity are part of the decongestion phase of CDT, which should be continued in the transition and maintenance phase.*
(highest recommendation grade “should”)

Recommendations regarding skin care

- *Compression materials put strain on the skin by reducing moisture and the lipid content of the skin. For this reason, skin protection and skin care are important therapeutic components, which should be carried out daily in order to avoid secondary infections, for instance due to the development of fissures, and to maintain the barrier function of the skin.*
(highest recommendation grade “should”)

Recommendations regarding information and instructions

- *The aim is that the acquired knowledge will improve **self-management**, thus **improving quality of life and the course of disease**. Pre-requisite for such improvement is the appropriate organisation of daily life.*

The use of medical compression therapy for the treatment of lymphoedema is essential.

- In the decongestion phase, compression should be applied in the form of lymphological multi-layer bandages.
- In the transition phase, the used **compression material depends on the patient's decongestion status.**
- In the maintenance phase, patients are supposed to wear flat-knitted tailor-made medical compression stockings.
(highest recommendation grade "should")

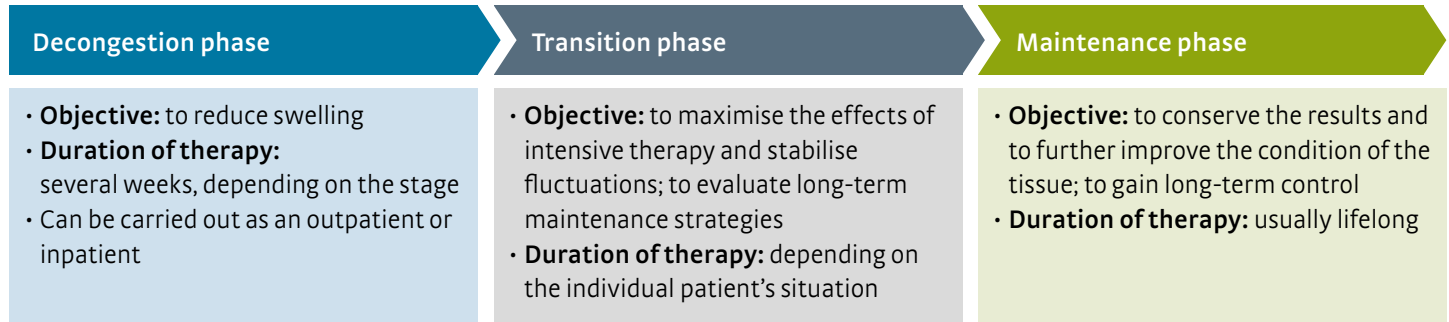


Fig. 2: The phases of CDT

Recommendations regarding medical compression stockings

- By **medium use**, such compression stockings ensure **effective compression pressure** for approximately **six months**.
- **Some patients** may require **two sets of compression stockings** worn on top of each other.
- A **second pair of stockings** is required for **hygienic reasons**.
- Patients undergoing intensive physical exertion or patients with a changed lymphoedema status may require **new sets of medical compression stockings at shorter intervals**.
- **Some patients** may use a **combination of compression stockings during the day** and self-applied **compression bandages during the night**.

Aims of conservative therapy of lymphoedema:

*“Conservative therapy is aimed at reducing **disease symptoms to the symptom-free stage or at least at lowering the stage of disease to achieve long-lasting stability of disease, to improve quality of life, to enable participation in social and professional life and to prevent complications. The combination of CDT with both self-management and information ensures long-lasting therapeutic success.**”*

The longlasting therapy success depends on the efficacy of the collaboration of the treatment chain.

“Long-lasting therapeutic success depends on the effectiveness of the treatment chain consisting of physician, physiotherapists / massage therapist / lymph therapist, health care supplier and the affected patient.”

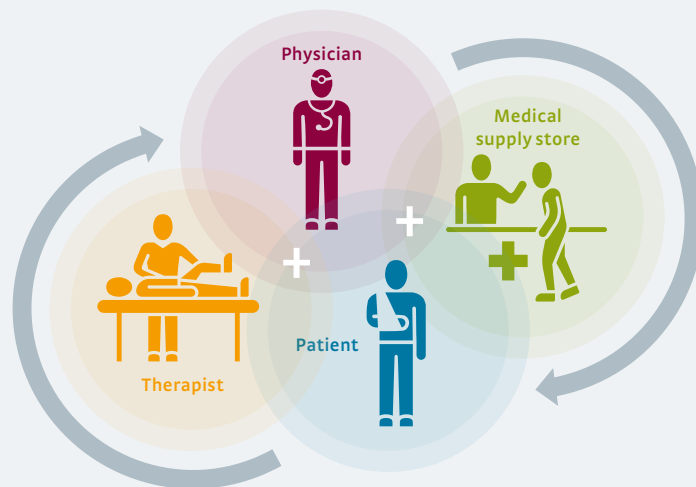


Fig. 3: Longlasting therapy success by effective collaboration of the treatment chain.

¹German S2k guideline - Diagnostics and therapy of lymphoedema. Status: May 2017.

Online available at: <https://www.awmf.org/leitlinien/detail/II/058-001.html> (Last access 2020 Dec 16th)