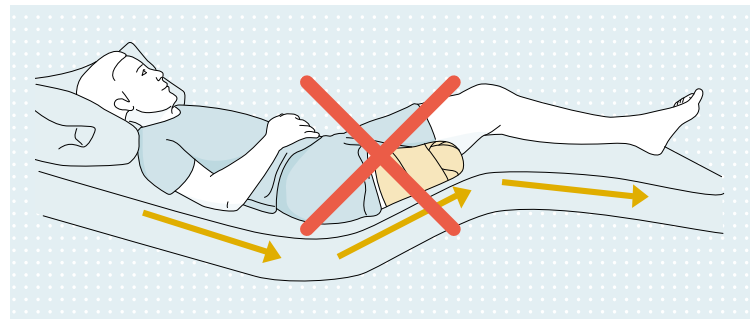
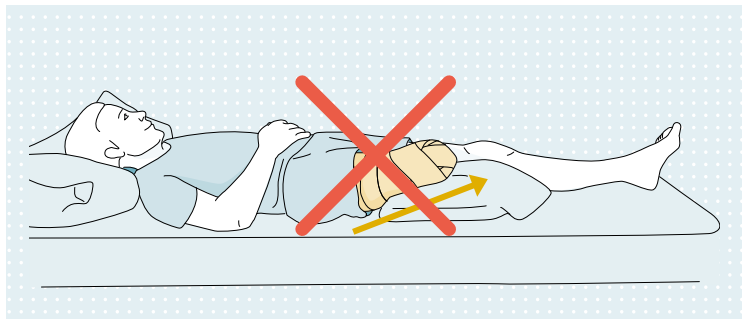
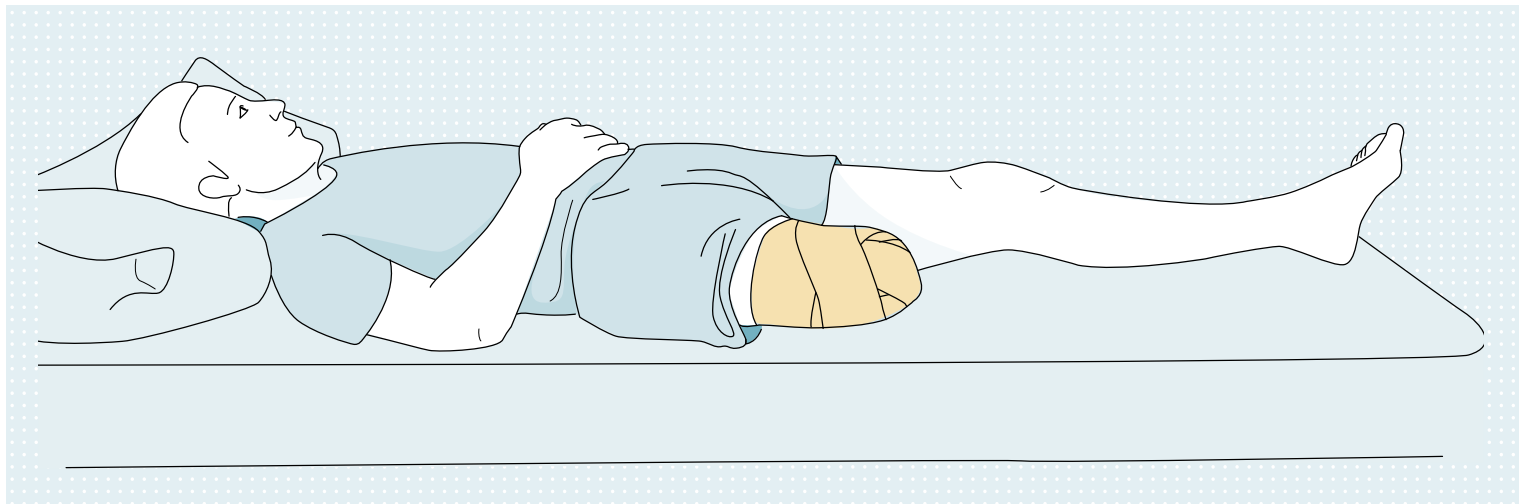


After the amputation

Directly after the amputation, therapy focuses on oedema therapy, mobilisation and scar treatment.

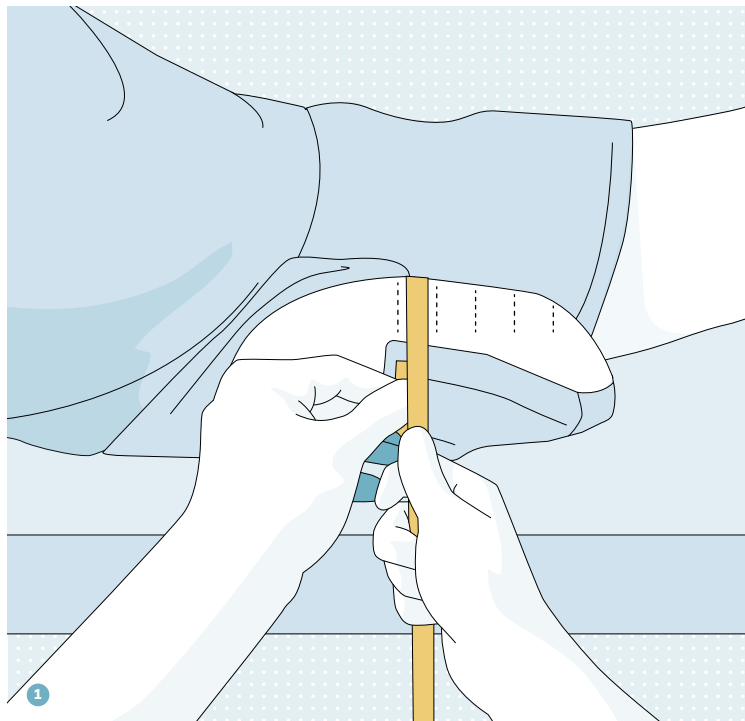


Positioning and support

Starting at the hospital, the correct body posture is extremely important to avoid muscle shortening, stiffening of the joints and thus reduced mobility. This may initially require coordination with hospital personnel. The residual limb should never remain in a flexed position for a long period of time – e.g. lying on a cushion. If the patient's physical condition allows and there is no risk of pressure sores, for example, a firm mattress is an additional preventive measure.

It prevents the buttocks from sinking down into the mattress, which would lead to excessive curvature of the hip.

If their overall health condition permits, we recommend positioning patients after a transfemoral amputation on their abdomen with the head turned to the healthy side twice a day for approx. 30 minutes. This stretches the hip flexor muscles in the residual limb and prevents muscle shortening.

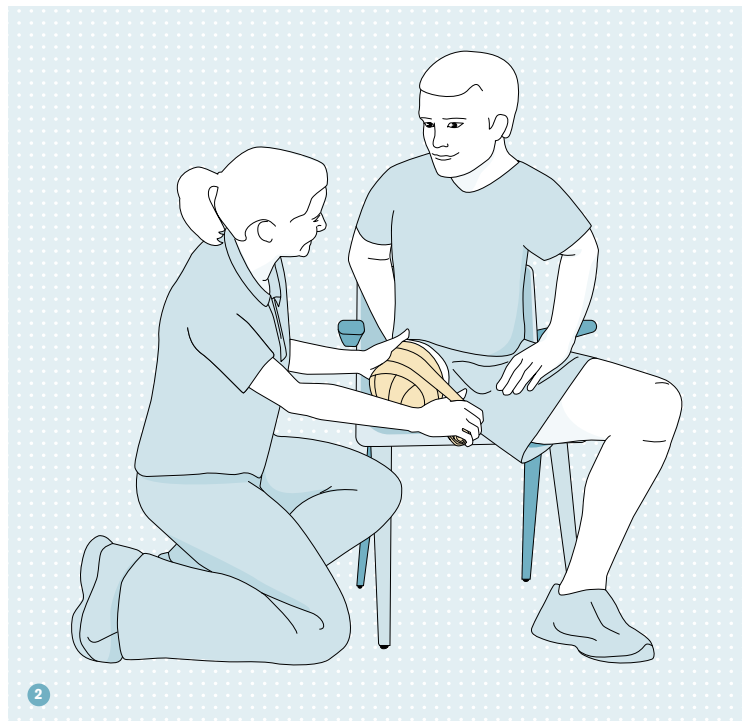


Oedema therapy

To have a positive effect on reducing swelling, the residual limb should – if possible – be positioned at heart level in the first few days after surgery and its circumference should be measured regularly. It is imperative that the patient's comorbidities are taken into consideration and positioning is adjusted accordingly. The additional elevation of the torso of patients with heart failure, pulmonary diseases or degenerative spine diseases must be discussed with the patient's physician.

When measuring the circumference, it is important to always use the same measuring points in order to observe changes and document them so they are comparable (1).

An important part of oedema therapy is manual lymphatic drainage. The goal is to stimulate natural drainage and carry away the fluid that has accumulated in the residual limb after amputation.

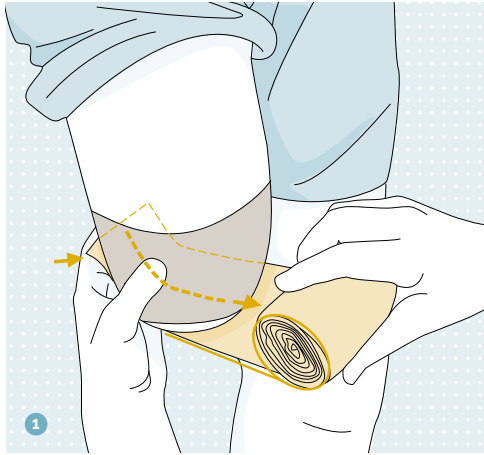


Early compression therapy

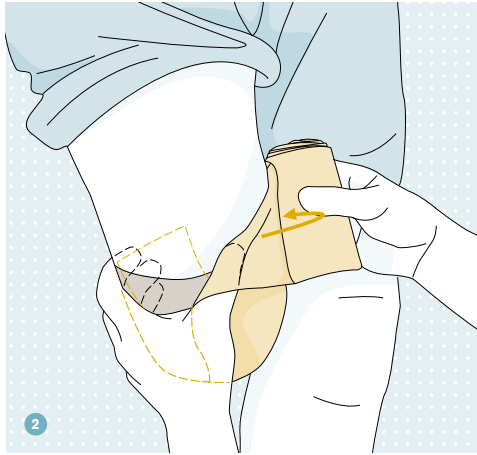
The wound dressing is changed frequently after surgery. After this, the physician determines the correct time for lymphatic drainage and subsequent compression therapy with a compression dressing or similar method. The objective is to further reduce the swelling of the residual limb and prepare it for the first prosthesis. Compression also stimulates blood circulation within the residual limb, reduces pain and promotes the healing process.

The figures on the following pages show different compression therapy techniques:

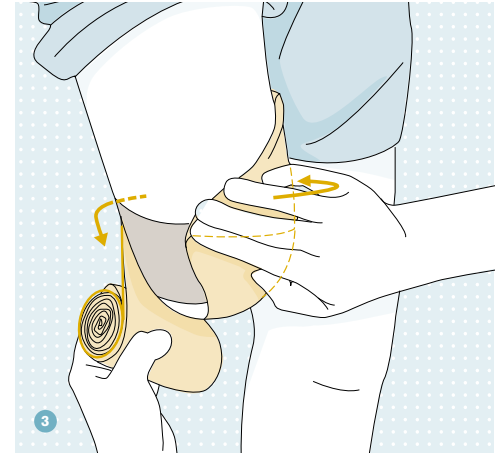
Wrapping the residual limb with a compression bandage (2 and page 3) or a silicone liner (page 4). The level of compression can be assessed based on skin discolouration or temperature. The bandage/liner must be removed occasionally to check the residual limb for any circulation problems or impaired sensitivity. This is particularly important for elderly patients with the corresponding comorbidities.



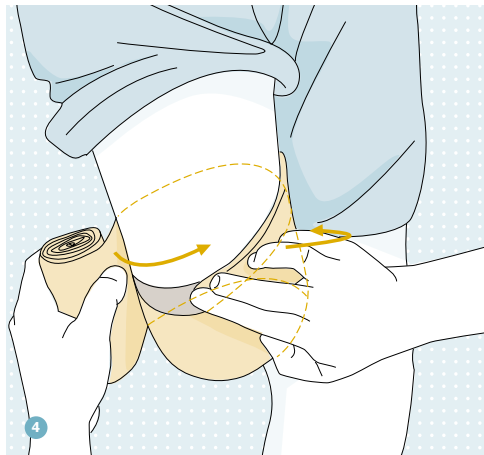
Before wrapping the residual limb, first place the bandage from the back to the front of the residual limb.



To secure the first layer, hold the bandage with one hand and tuck it in with the other.



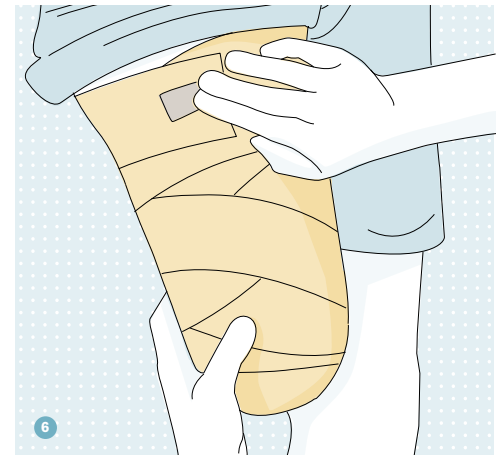
Make sure that the pressure from the bandage is most intense at the end of the residual limb and is reduced successively towards the body.



Pull the bandage firmly while wrapping it around the back of the residual limb ...



... and place it more loosely in the front. Continue wrapping diagonally.



Apply the dressing as far up in proximal direction as possible – more than one bandage may be required. When the dressing is finished, secure it with tape.

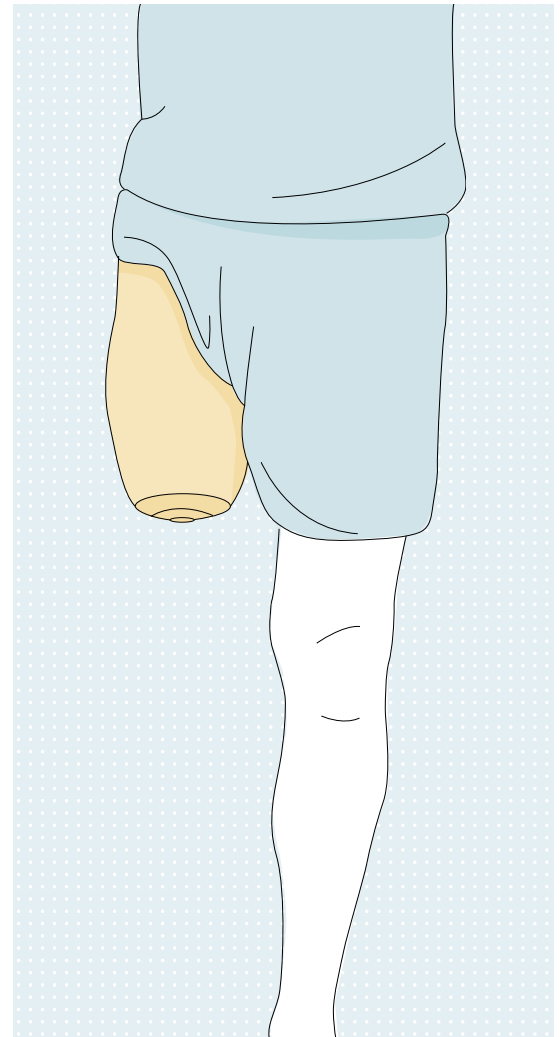
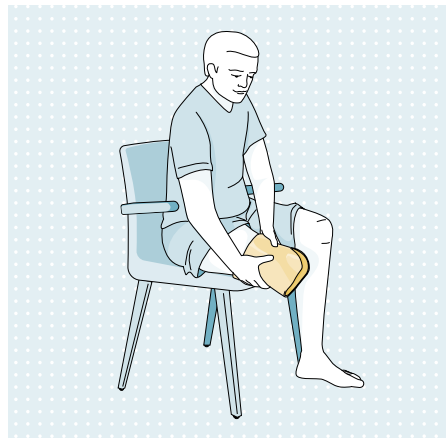
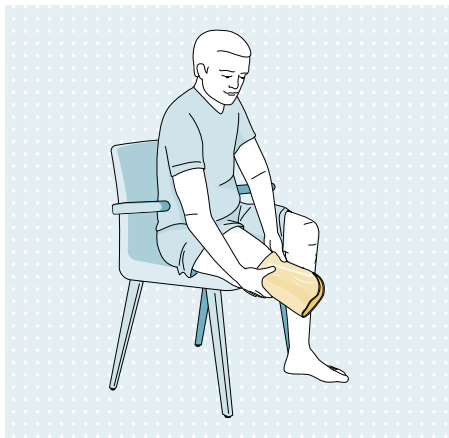
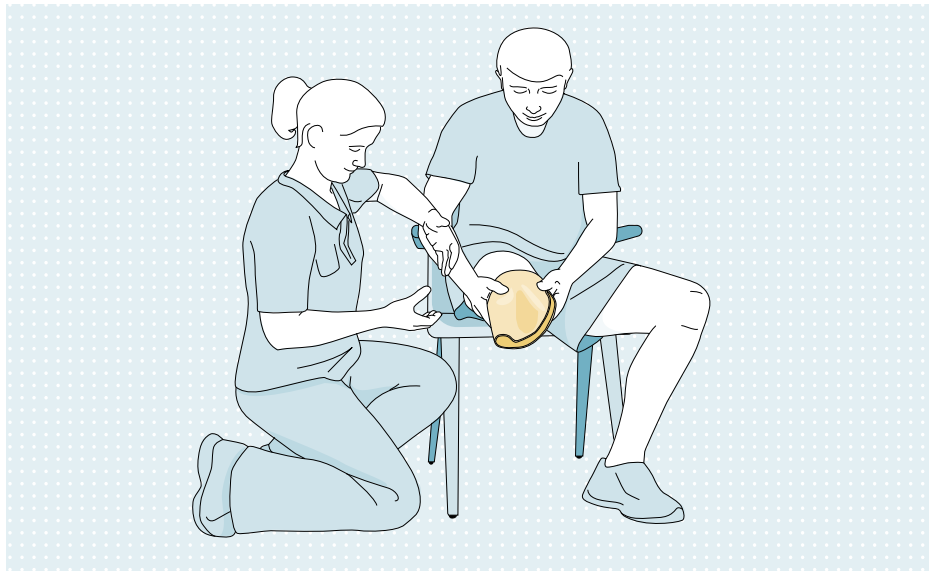
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What you need

1. Cohesive elastic bandage
2. Compression bandage
3. Adhesive tape
4. Scissors

Compression bandage

Several bandages are often required to cover the entire residual limb and apply the necessary compression. To prevent problems with circulation, the residual limb shall not be constricted by the bandage. The therapist can do this by manually checking the compression of the dressing, for example.



Silicone liners

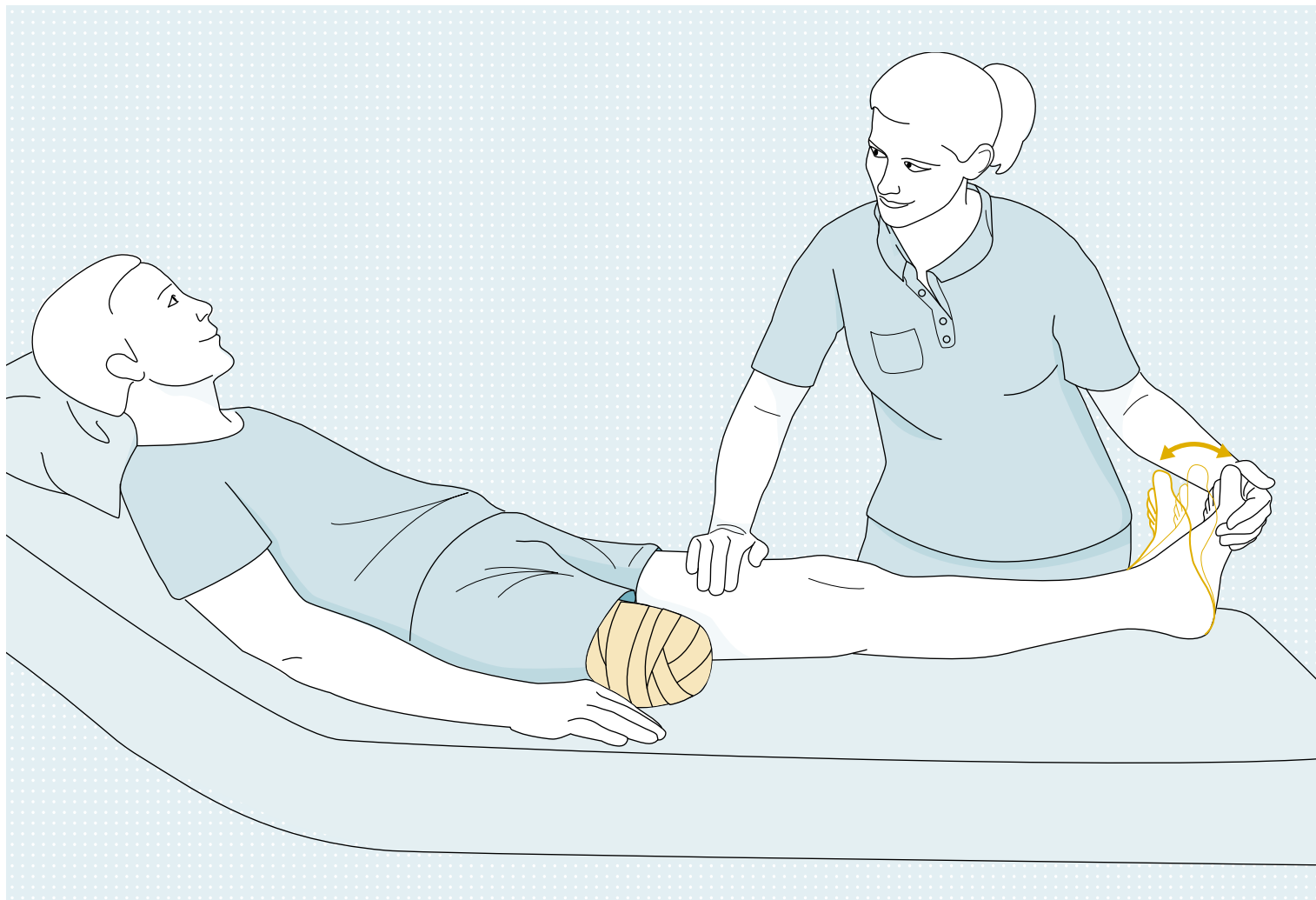
Although the level of compression is not as individually adjustable as with compression bandages, silicone liners are a fast and easy alternative. However, to apply even compression, there must not be any air between the end of the residual limb and the liner.

Initially, there is often increasing perspiration inside the liner – this decreases after a while. To prevent skin irritation, we firstly recommend applying Ottobock Procomfort Gel to the skin at the upper edge of the liner and secondly, cleaning the liner regularly.

Additional compression

When the volume of the residual limb no longer decreases and the scar has healed well, the prosthesis fitting process can begin. Until this time, compression should be maintained continuously after consultation with the physician and ruling out any contraindication.

Additional compression while the prosthesis is not being worn is also recommended in the initial period when the patient wears the prosthesis for short periods only. It is generally no longer needed as soon as the patient can wear the prosthesis for longer periods.



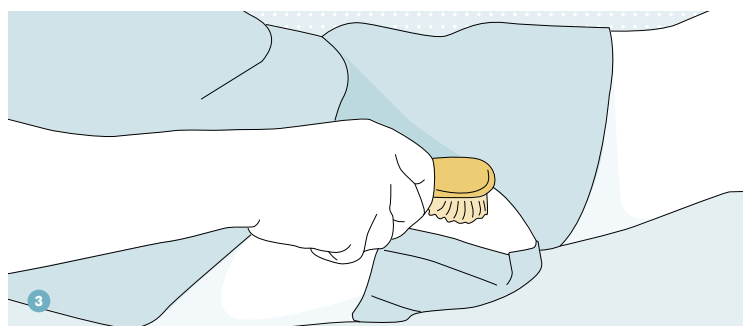
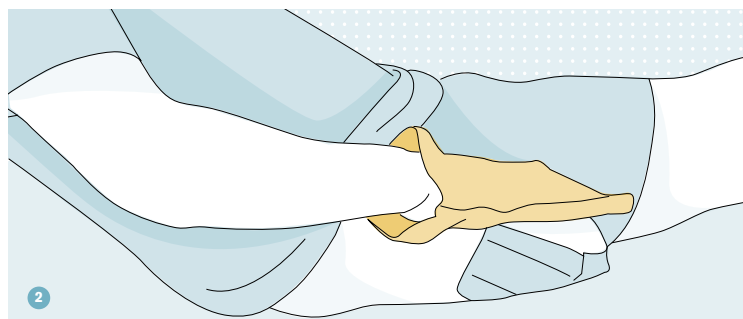
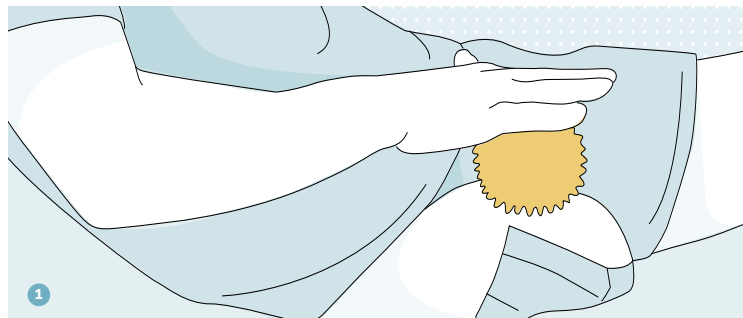
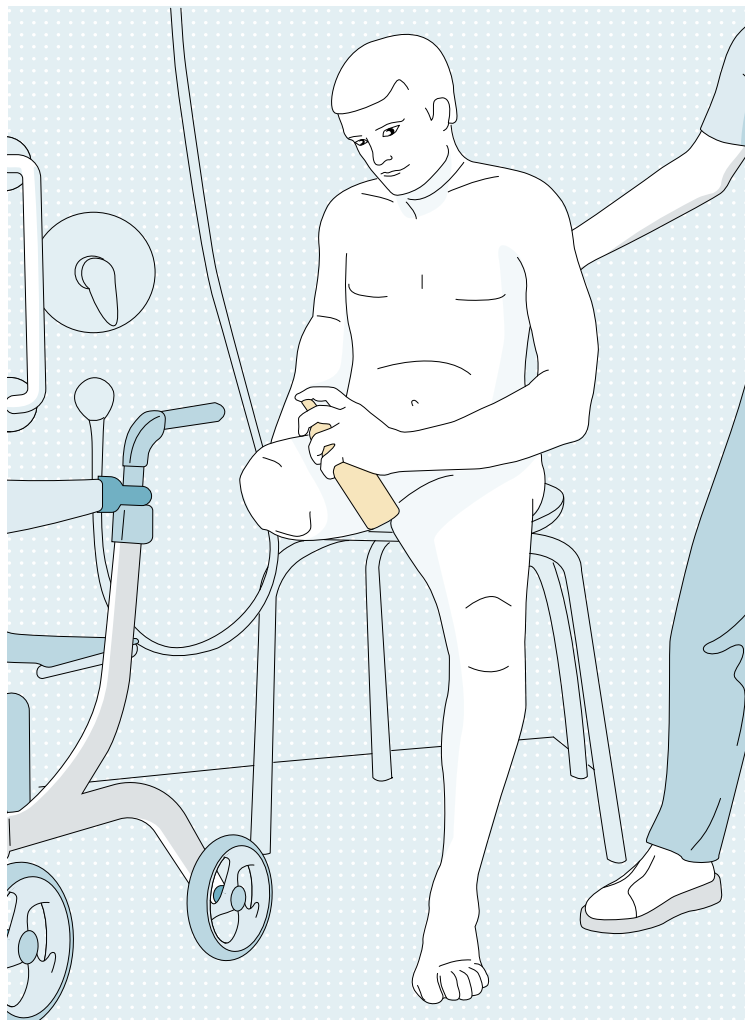
Mobilisation

Early and complete mobilisation is so important because it has a positive effect on general balance, as well as the cardiovascular system and on maintaining muscle mass. Additionally, contractures should be prevented as much as possible to ensure that the patient can stand and walk upright with the leg prosthesis.

One possible exercise for the beginning is the active mobilisation of the ankle joint on the contralateral side.

In a lying or sitting position, the patient moves the foot in plantar and dorsi flexion. Alternatively, the foot can be rotated.

Sitting freely without using a backrest strengthens the trunk muscles and is a recommended exercise starting immediately after the amputation – of course in the presence of yourself or a nurse.



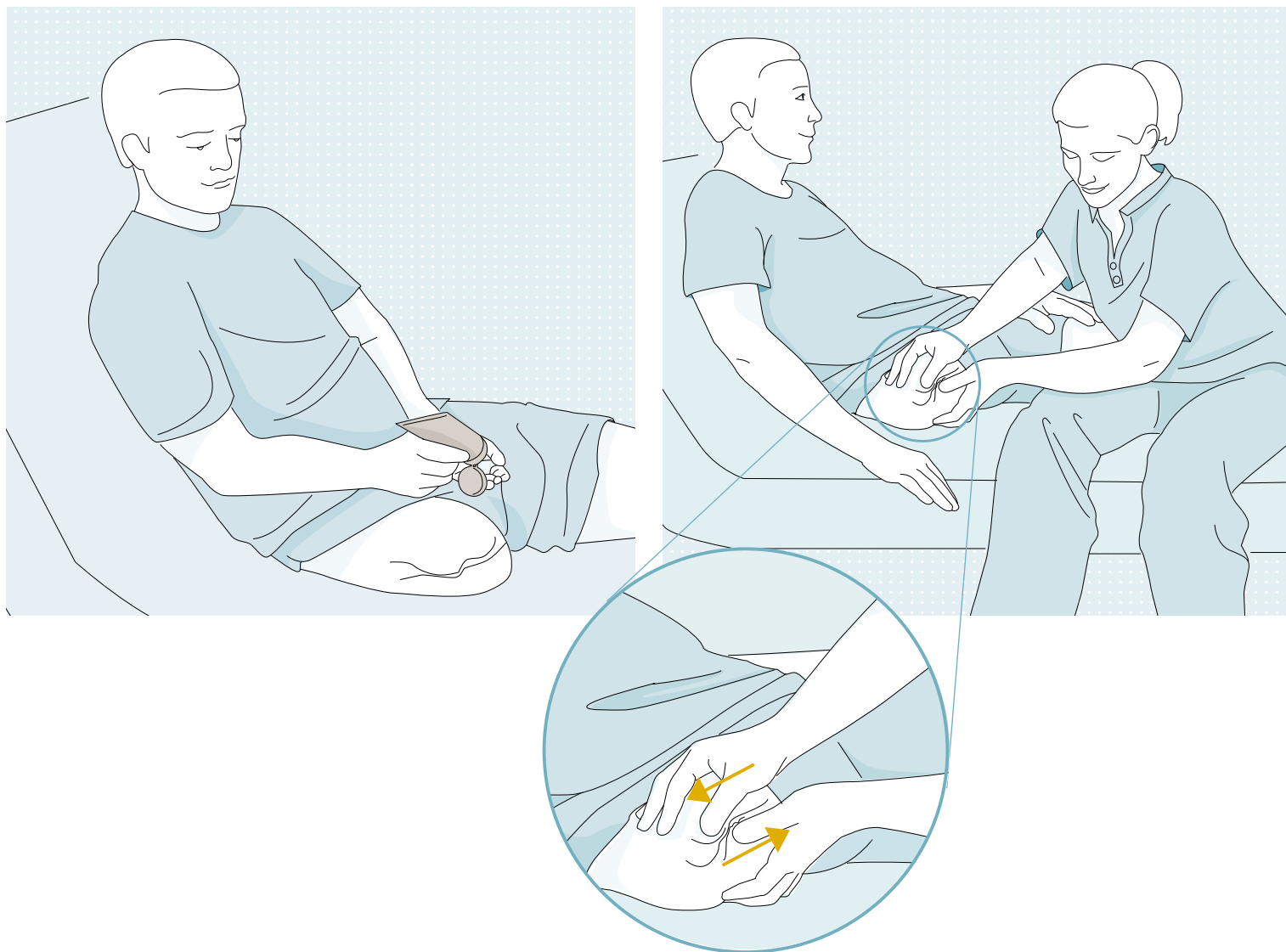
Skin care and scar treatment

Skin care

To promote wound healing, it is essential to wash the residual limb daily with a skin-friendly, unscented soap. Ottobock has a number of skin care products that simplify the care and hygiene of the residual limb. Please inform your patients that they can also ask their O&P professional for support.

Desensitising the skin

The skin on the residual limb is often very sensitive following the surgery. To counteract this, it helps to gently roll a massage ball with nubs over the sensitive area (1). Alternatively, the residual limb can be massaged with a rough towel/washcloth in distal to proximal direction (2). Brush massages are also suitable for desensitisation (3).



Scar treatment

In most cases, the surgical wound closes within the first three to four weeks and a scar is formed. Even when the external scar has healed well, the actual healing process of scar tissue below the skin can take up to 18 months. Because scar tissue has no oil glands, we recommend – after consultation with the physician or nurses – to start moisturising it soon after surgery. Unscented, oil-rich lotions are optimal for this.

The more flexible, soft and resilient the skin is, the better it is prepared for fitting and wearing a prosthesis. As a therapist, you need to show patients how to clean, moisturise and massage their skin in an optimal way.

The best way to prevent the formation of excessive scar tissue is full-coverage compression of the residual limb with bandages or silicone liners (see pages 3 and 4).