Liko UniversalSling is a basic model which is designed to adapt to the patient without individual adjustments and is one of our most used slings. The UniversalSling provides an upright sitting posture and supports the entire back up to the neck. The patient's arms are held inside the sling. A properly fitted and carefully applied UniversalSling will give the patient an excellent sense of safety, as well as a high degree of comfort.

Sizes
The UniversalSling is available in different sizes. It is important to choose the correct size to achieve the highest level of comfort and safety. A sling which is too large increases the risk of the patient sliding out of it, while one which is too small can cut into the groin and cause discomfort.

For larger sizes, a combination with Liko Universal TwinBar 670 can be a good choice.

Fabrics
The UniversalSling is available in different fabrics. Since the UniversalSling is not usually left under the patient after the transfer, we recommend the polyester design. This fabric is durable and has low friction making the sling easy to apply and easy to remove.

The UniversalSling is also available in net polyester. This fabric is recommended when the sling is left in place after the transfer or when an airier alternative is desired.

For bathing and showering, a plastic-coated net design is available, which is water permeable and can easily be wiped. This material dries quickly and does not chill the patient in the same way as a damp, absorbent fabric would.

The sling's lift straps are always made of durable polyester and are very secure.

Leg Supports
The UniversalSling is available with leg supports in several different designs. Most common are leg supports with reinforcements. The reinforcement provides high comfort, equalizes pressure and prevents the sling from creasing under the thighs.

There is also a version with soft-padded leg supports (synthetic sheepskin). This design is suitable for patients who are especially sensitive to pressure.

Liko Universal HighLevel Sling, Mod. 02
The UniversalSling Mod. 02 is recommended for transfers where there is a problem to achieve sufficient lifting height. The suspension loops are minimised, and the sitting posture is slightly more reclined than with model 00.

⚠️ is a warning triangle used for situations which require extra care and attention.

In this document, the person being lifted is referred to as the patient and the person helping is referred to as the caregiver.
Safety Instructions

⚠️ Before lifting, keep the following points in mind:

- A responsible person within your organization should decide on a case-by-case basis whether one or more caregivers are needed.
- Ensure that the sling selected meets the patient’s needs with reference to model, size, fabric and design.
- For safety and hygiene reasons, use individual slings.
- Before lifting, plan the lifting operation so that it can be done as safely and smoothly as possible.
- Before lifting, check that the lifting accessory hangs vertically and can move freely.
- Although Liko’s sling bars are equipped with safety latches, special caution must be exercised:
  - Before the patient is lifted from the underlying surface, but after the straps have been fully extended, make sure the straps are properly connected to the sling bar.
- Make sure the patient is sitting securely in the sling before transferring to another location.
- Never lift a patient higher off the underlying surface than is needed to complete the lifting procedure.
- Never leave a patient unattended in a lifting situation.
- Make sure that the wheels on the wheelchair, bed, gurney, etc., are locked during the lifting/transfer operation.
- Always work ergonomically.

Medical Class I Product

Liko UniversalSling has been tested by an accredited testing institute and complies with all requirements for MDD Class I products and the harmonized EN ISO 10535 standard.

Liko is quality certified in accordance with ISO 9001 and its equivalent for the medical device industry, ISO 13485. Liko is also certified in accordance with environmental standard ISO 14001.

Design and Quality by Liko in Sweden

Liko’s products undergo continuous development, which is why we reserve the right to make product changes without prior notice. Contact your Liko/HillRom representative for advice and information about product upgrades.

⚠️ IMPORTANT!

Lifting and transferring a patient always involves a certain risk. Read the instruction guide for both the lift and lifting accessories before use. It is important to completely understand the contents of the instruction guide. The equipment should be used by trained staff only. Ensure that the lifting accessories are suitable for the lift being used. Exercise care and caution during use. As a caregiver, you are always responsible for the patient’s safety. You must be aware of the patient’s ability to handle the lifting situation.

Care and Maintenance

Check the sling before each use. Check the following points with regard to wear and damage:

- Fabric
- Straps
- Seams
- Suspension loops

Do not use damaged lifting accessories. If anything is unclear, please contact the manufacturer or supplier.

Washing instructions: See the sling’s product label.

Expected Life Time

The product has an expected life time of 1-5 years during normal use. Life time varies depending on the fabric, use frequency, washing procedure, and weight carried.

Periodic Inspection

The product must be inspected at least once every 6 months. More frequent inspections might be required if the products are used or washed more often than normal. See Liko’s protocol Periodic Inspection for the respective product.
Definitions

1. Product label
2. Serial number
3. Label: Periodic Inspection
4. Label: Individual marking (Belongs to)
5. Upper strap loop
6. Handle
7. Leg support
8. Shortening position
9. Outer leg support loop
10. Lower edge
11. Center back strap
12. Size marking

Lifting from the sitting position

Place the sling behind the patient’s back with the product label outwards. Fold up the lower edge of the sling around your finger tips to facilitate guiding the sling into place.

Using the palm of your hand, push the lower edge of the sling down to the level of the patient’s coccyx - this is very important. Tip: Correct positioning is facilitated if the patient leans/is leaned forward slightly.

Pull the sling’s leg supports forward along the outside of the patient’s thighs. Place the palm of your hand between the patient’s body and the sling and push the leg support’s lower edge down towards the seat. Simultaneously, pull the leg support forward with the other hand to stretch it.

Pull the leg supports forward to smooth out any creases in the back. Check that both leg supports protrude the same distance. Tip: A gentle hold under the knee-cap makes it easier to pull the leg supports forward.
Insert the leg supports under each thigh. Make sure the fabric lies flat and that it reaches properly around the leg. **Tip:** The application of the leg supports is facilitated if the patient's legs are slightly raised from the seat. This can be achieved by placing the patient's feet on the foot rests or on your own leg, as illustrated.

**Tip:** Check that all suspension loops have the same length, i.e., are at an equal height when they are stretched prior to lifting. Adjust the position of the sling if they are not at an equal height.

Prepare the connection of the leg supports. The most common way of applying the sling is with crossed leg supports. For alternative methods, see page 7.

Prepare the connection of the leg supports. First connect the upper strap loops to the sling bar, then the leg support loops. Lift.

**Lifting to the Sitting Position**

When placing a patient in a wheelchair, it is important that the patient gets far enough back in the chair to sit well. This can be accomplished in several ways.

When placing a patient in a wheelchair: Lean the chair backwards during the lowering of the patient. Let the buttocks slide down the backrest during the last part. Control the angle of the wheelchair with your foot on the tipping support.

*Alternative:* Apply slight pressure under the patient's knees during the lowering sequence, so that the buttocks are guided towards the backrest of the chair. If the sling has handles, these can be used to guide.

△ *Do not use the handles to lift! Excessive force on the handles can cause the sling to tear.*
Removing the Sling in a Chair/Wheelchair

We recommend removing the sling after the transfer. If for some reason it is preferable to leave the sling in the chair, we recommend using a sling made of net polyester.

Carefully remove the leg supports. The gentlest way of doing this is by pulling out the leg support loops under the fabric part.

Remove the sling by carefully pulling it up.

Lifting from the Bed

We recommend applying the sling when the patient is lying horizontally, as this is the easiest procedure. In some cases, e.g., if the patient cannot lie horizontally, the sling can be applied with the patient sitting up in bed (see *Alternative method of applying the sling* below).

For lifting from a supine position without the possibility of raising the head end of the bed, we recommend Liko Soft Original HighBack Sling Mod. 26, or alternatively Liko Original HighBack Sling Mod. 20, 21, which all provide support for the head.

Think about your own work posture as well as the comfort of the patient. Use the bed’s raising and lowering functions.

Turn the patient toward you to prevent him or her from falling out of the bed. Insert the sling’s edge under the patient with the lower edge *level with the coccyx*. Fold the sling so that its centre back strap corresponds to the patient’s spine when the patient is turned back again gently. Carefully pull the sling out from the other side.

Insert the leg supports under each leg. This is best done by pressing the leg support down against the mattress while inserting it under the thigh. Make sure the fabric lies flat and that it reaches properly around the leg. The leg supports can be connected in different ways, see page 7.

Raise the head end of the bed. First connect the upper strap loops to the sling bar, then the leg support loops. Lift.

*Alternative method of applying the sling:* Raise the head end of the bed behind the patient. Lay the sling on the bed with the product label facing down towards the mattress. Slide the sling down behind the patient’s back so that the lower edge *is in level with the coccyx*. Tip! The application is facilitated if the patient leans/ is leaned forward.
Lifting to the Bed

We recommend removing the sling after transfer. If for some reason it is preferable to leave the sling in the bed after transfer, we recommend using a sling made of net polyester.

Think about your own work posture as well as the comfort of the patient. Use the bed’s raising and lowering functions.

Removing the Sling when Sitting in Bed

Position the patient above the bed. Raise the head end of the bed for the patient’s comfort. Lower the patient onto the bed.

Remove the leg supports by pulling out the leg support loops under the fabric part. Tip: This is facilitated if the patient’s legs are bent.

Remove the sling by carefully pulling it up.

Removing the Sling when Lying in Bed

Position the patient above the bed. Raise the head end of the bed for the patient’s comfort. Lower the patient onto the bed. Lower the head end.

Place the leg support loops under the leg supports between the patient’s legs.

Grasp the edge of the sling. Push in the sling under itself. Press the sling against the mattress and in under the patient.

Carefully turn the patient onto the side. Grasp the sling from below and remove it carefully.

Lifting to/from the Toilet

For lifting to/from the toilet with UniversalSling according to the "pants trick", please see separate instructions. There are several other slings in the Liko range that can be used for lifting to/from the toilet, e.g. Liko HygieneSling and Liko HygieneVest.
Fitting Advice

Different Ways of Connecting Leg Supports

Before a connection alternative is chosen, an individual assessment should be performed to anticipate possible risks.

**Crossed-over leg supports.**
The most common way of applying the sling. One leg support loop is passed through the other before the loops are connected to the sling bar.

**Overlapped under both thighs.**
This can be appropriate, for example when lifting a patient with amputated legs. Tip: In order to avoid the patient's sitting posture being too reclined, Extension Loops can be attached to the leg support loops.

**Each leg support connected separately to the sling bar.**
This can be appropriate when lifting patients with particularly sensitive genitals.

△ Increased risk of sliding out.

The patient does not sit well in the sling – why is this?

**WRONG!**

- A. Risk of sliding out. The buttocks hang down. The sling may be too large. It can also be due to the fact that the sling has not been pulled down the patient's back sufficiently.
  
  Before lifting, check that the lower edge is stretched and that the fabric reaches properly around the legs.

- B. Too small sling can cause the leg supports to cut into the groin causing discomfort, the sling bar to be too close to the face and/or the back to get insufficient support.

**RIGHT!**

The lower edge of the sling is at the same level as the coccyx. The leg supports are properly positioned under the legs.

**Shortening Position**

In certain cases, it can be advantageous to shorten the leg support loop for the patient to sit well in the UniversalSling. The shortening position can be used temporarily in order to test for the right length, but extended use may damage the bartacks. However, if you want to shorten the leg support loop for long term use, we recommend that you tie a knot in the loop to shorten it about 10 cm (4 inches). In this case, it is the outer leg support loop which should be connected to the sling bar.
Overview Liko UniversalSling, mod. 00, 02

<table>
<thead>
<tr>
<th>Product</th>
<th>Prod. No.</th>
<th>Size</th>
<th>Patient’s Weight¹</th>
<th>Max. Load²</th>
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<td>Liko UniversalSling</td>
<td>3500 - 4</td>
<td>S</td>
<td>35 - 55 kg (77-121 lbs)</td>
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<td>80 - 120 kg (176-264 lbs)</td>
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<td>Liko UniversalSling</td>
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<td>XL</td>
<td>110 - kg (242 lbs)</td>
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¹ The indicated patient weight is a guideline only – there may be deviations.
² For retained maximum load, lift/accessories intended for the same load or more are required.

Recommended combinations of the Liko UniversalSling and Liko’s sling bars:

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* Head Support, Prod. No. 3651115, is recommended.

Explanation: 1 = Recommended, 2 = May work, 3 = Not advised, 4 = Inappropriate

Other Combinations

Combinations of accessories/products other than those recommended by Liko can result in risks for the safety of the patient.

In those cases where another manufacturer recommends Liko’s accessories/products in combination with their or others’ accessories/products, and the combinations are not approved by Liko, that manufacturer assumes the responsibility for that combination. Liko then refers to the responsible manufacturer’s instruction guides and recommendations concerning usage, maintenance, cleaning, checking and inspection of the combination in order to fulfill the EN ISO 10535 requirements.