

## Product Description

**Liko Original HighBack Sling is a basic model which is designed to adapt to the patient without individual adjustments and is one of our most used slings.**

It provides for a slightly semi-reclined sitting posture and excellent support for the entire body, which is good for patients with reduced torso stability. A properly fitted and carefully applied sling will give the patient an excellent sense of security, as well as a high degree of comfort.

The Original HighBack Sling is also recommended for lifting to or from the floor, since it provides a comfortable head support both in sitting and in lying position.

### Sizes

The Original HighBack Sling is available in different sizes. It is important to choose the correct size in order 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 Original HighBack Sling is available in different fabrics. Since the OriginalSling is not usually left under

the patient after a completed 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 Original HighBack Sling 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 Original HighBack Sling is available with leg supports in different designs. Most common are reinforced leg supports. The reinforcement provides high comfort, distributes the pressure and prevents the sling from creasing under the thighs.

One design has simple fabric without reinforcement in the leg support, making the sling more pliable and easy to care for.

Finally there is also one design with soft-padded leg supports (synthetic sheepskin). This is suitable for especially pressure-sensitive patients.

**△ 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 and transfer procedure.
- Never leave a patient unattended during 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 Device Class I

Liko Original HighBack Sling 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/Hill-Rom 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 only be used by trained personnel. 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.

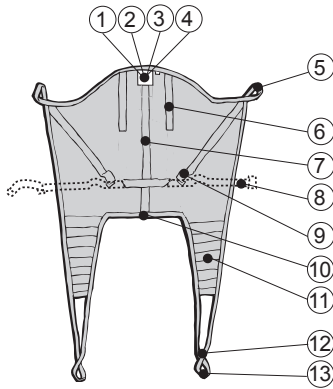
## Expected Life Time

The product has an expected life time of 1-5 years during normal use. Expected life time varies depending on 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.

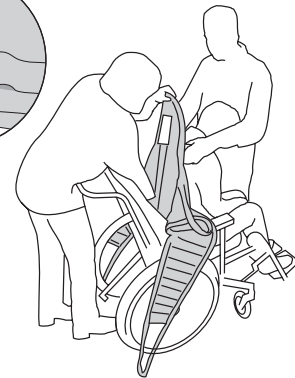
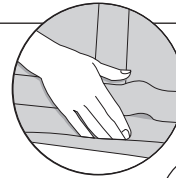
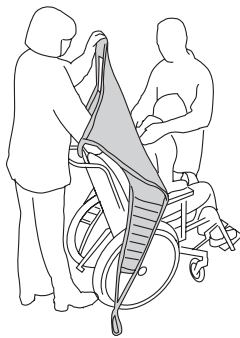
## Definitions



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

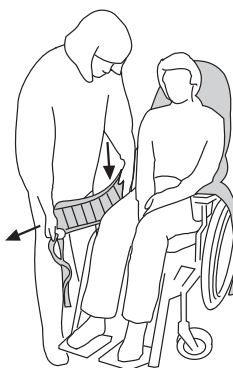
## Lifting from a Sitting Position

Two caregivers should be used to place the sling in accordance with ergonomic principles. The patient is usually tilted forward during the application, and it is then important that a caregiver stand in front of the patient to prevent him/her from falling forwards.

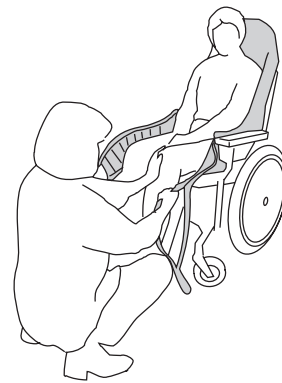


Place the sling behind the patient's back with the product label outwards. Fold up the lower edge of the sling around your finger tips to facilitate guiding the sling into place.

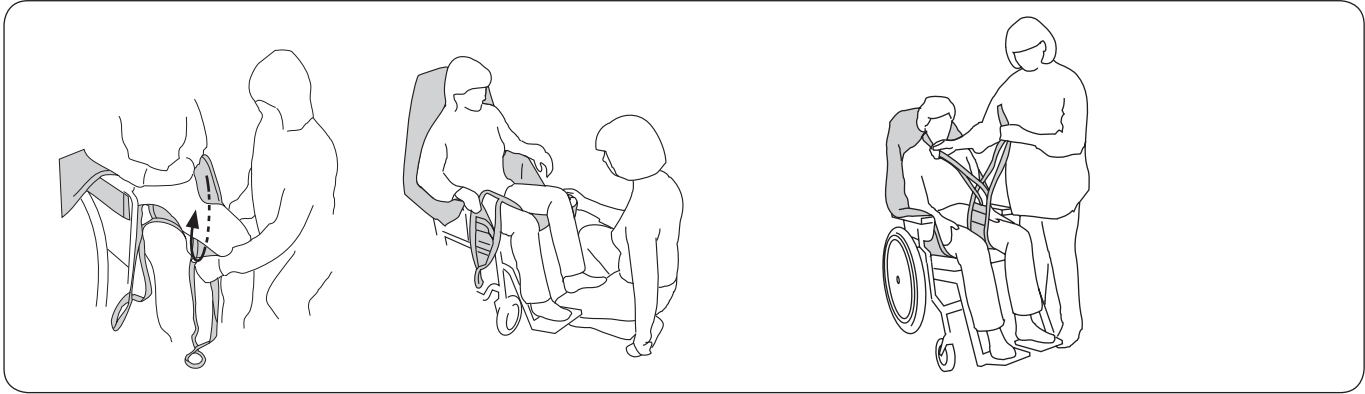
Using the palm of your hand, push the lower edge of the sling down to the level of the patient's coccyx -**this is very important**. **Tip:** Correct positioning is facilitated if the patient leans/is leaned forward slightly.



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.

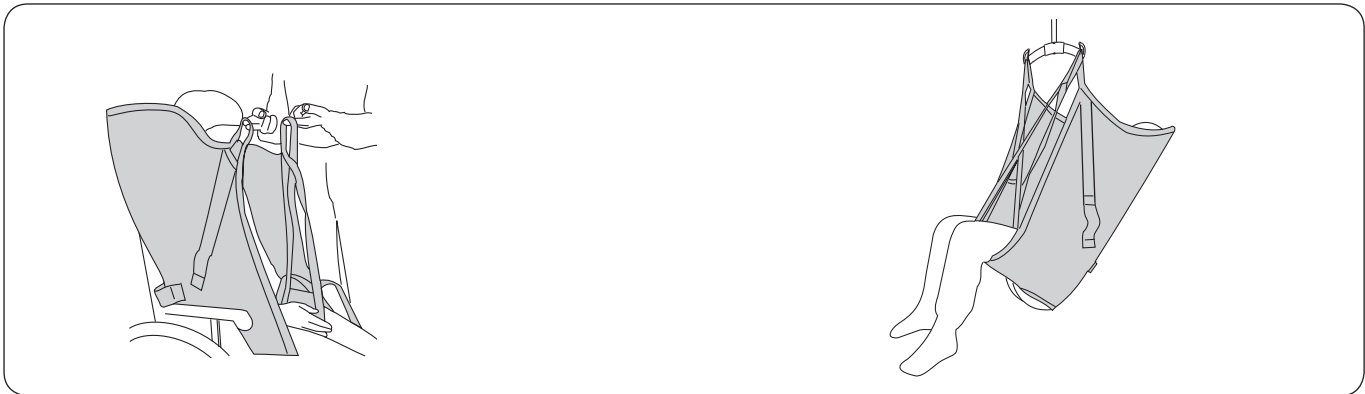


Pull the leg supports forward to smooth out any creases in the back. Check that both leg supports protrude the same distance. **Tip:** A gentle hold under the knee-cap makes it easier to pull the leg supports forward.



Insert one leg support 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.

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 8.

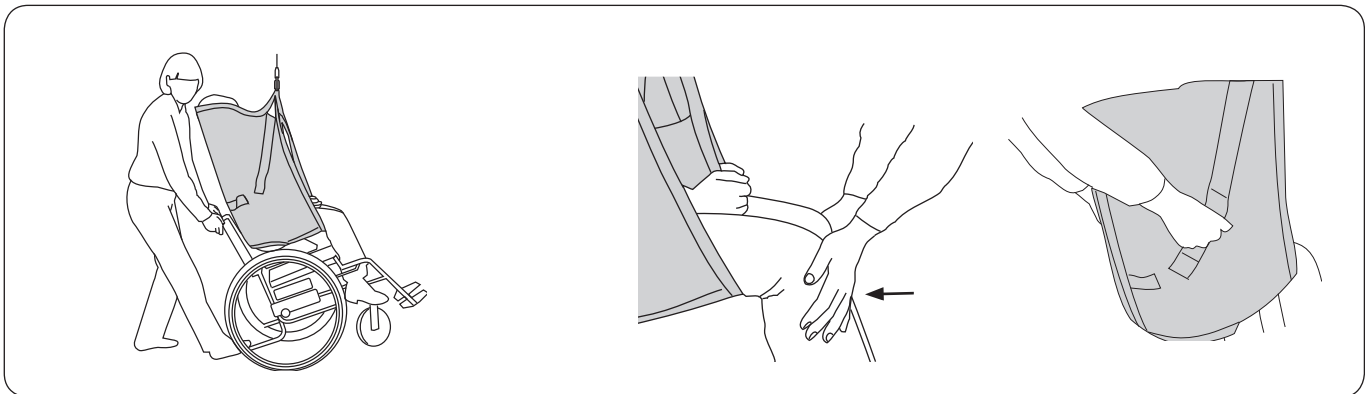


**Tip:** Check that all suspension loops have the same length, i.e., are at an equal height when they are stretched prior to lifting. Adjust the position of the sling if they are not at an equal height.

First connect the upper strap loops to the sling bar, then the leg support loops. Lift.

## Lifting to a 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.



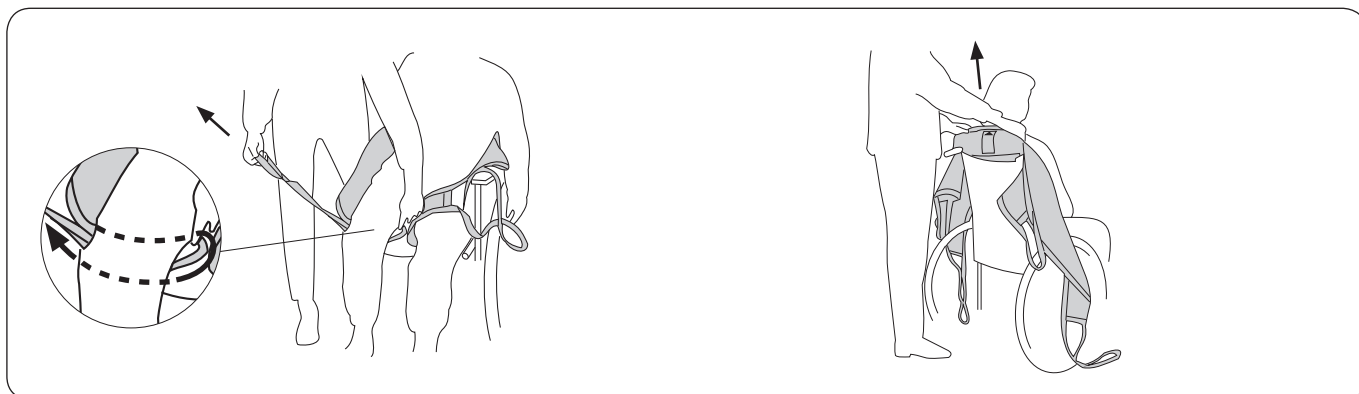
**When placing a patient in a wheelchair:** Lean the chair backwards during the lowering of the patient. Let the buttocks slide down the backrest during the last part. Control the angle of the wheelchair with your foot on the tipping support.

**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.



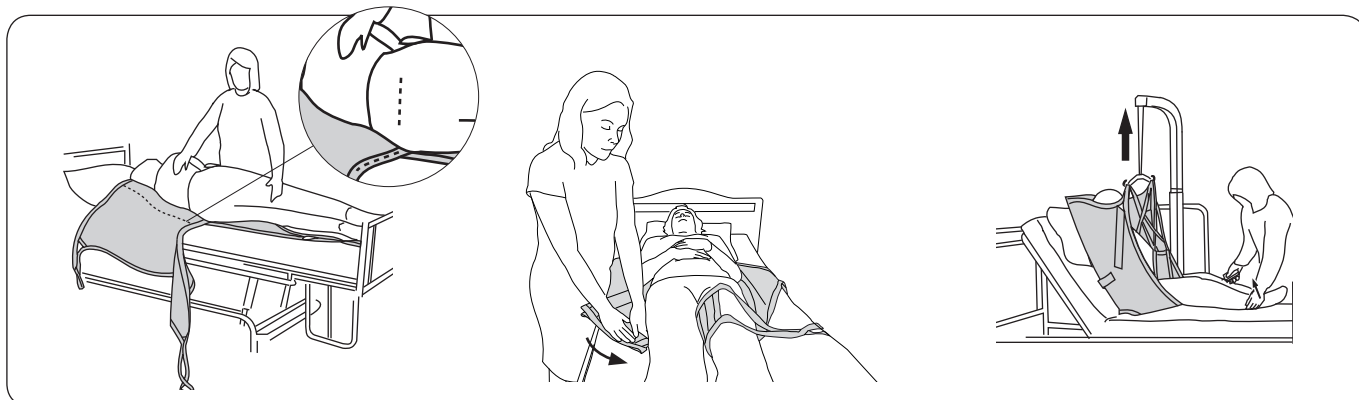
Carefully remove the leg support. The gentlest way of doing this is by pulling out the leg support loops under the fabric part of the leg support.

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).

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 the legs. 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 8.

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 **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 the Patient is Sitting in Bed

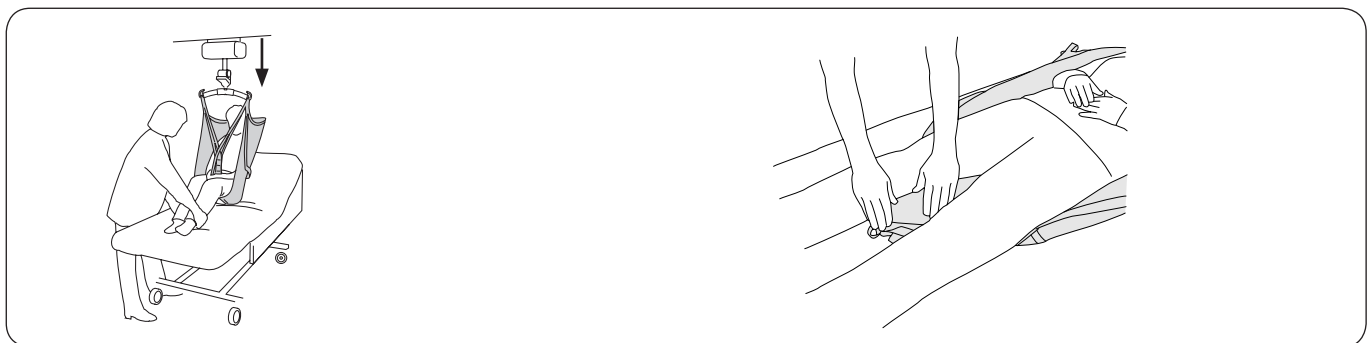


Position the patient above the bed. Raise the head end of the bed for the patient's comfort. Lower the patient onto the bed.

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

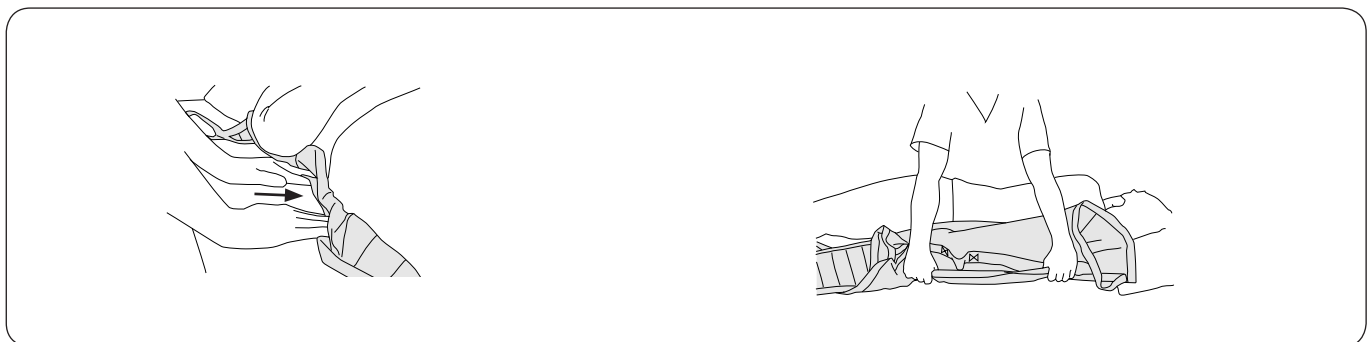
Remove the sling by carefully pulling it up.

## Removing the Sling when the Patient is 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.

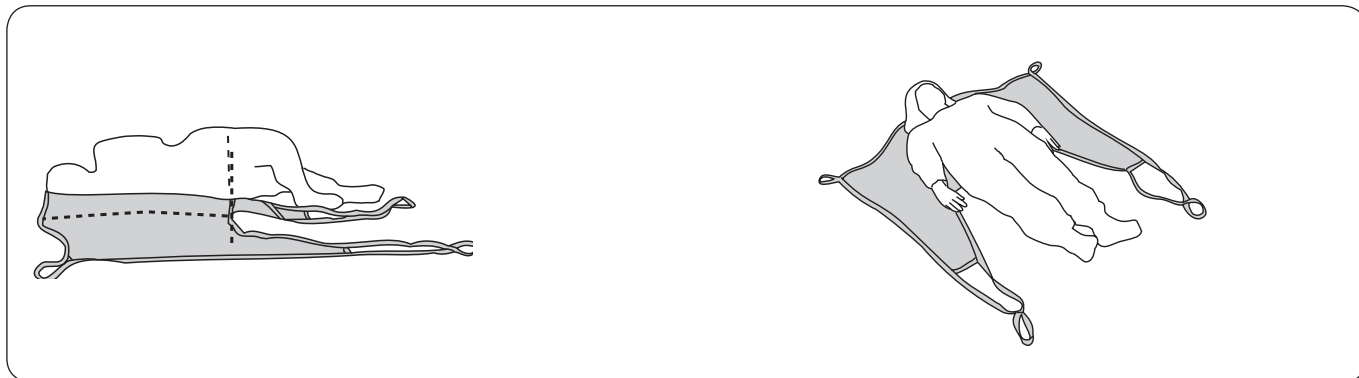
Carefully turn the patient onto the side. Grasp the sling from below and remove it carefully.



## Lifting from the Floor

Lifting from the floor with Liko's mobile lift Golvo is described below. The same technique is suitable also for lifting with Liko's other mobile and stationary lifts. Read the Instruction Guide for the lift being used.

**Tip:** A pillow under the patient's head could be comfortable.



Carefully turn the patient onto the side and place 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.

Check that the sling lies symmetrically under the patient; adjust the position if necessary. Place the leg supports under the legs.

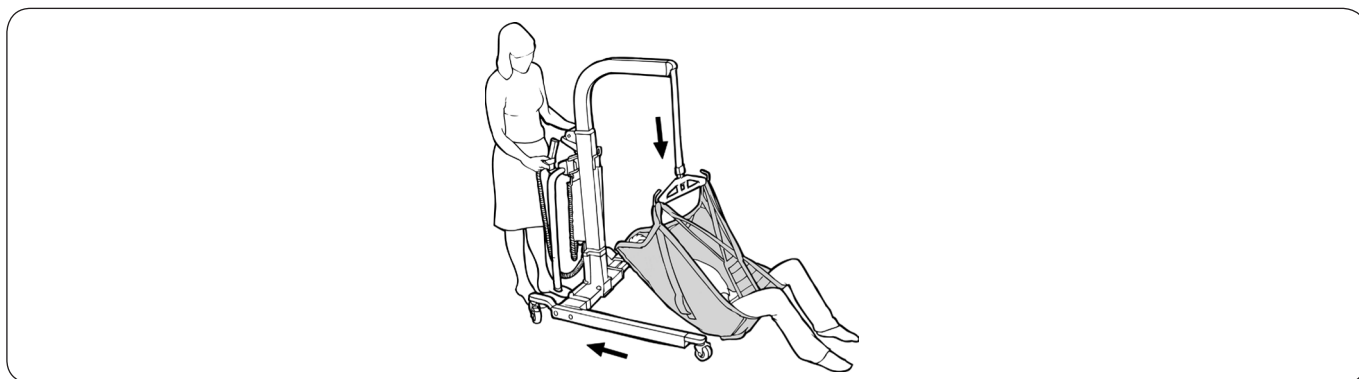


Smooth out the leg supports under the patient's legs. Keep the leg supports away from the groin to prevent discomfort to the patient. This is facilitated if the patient bends the legs.

Lift the patient from the floor. The patient can be rotated slightly to avoid the head's getting too close to the mast.

**△ The mobile lift should be locked when lifting with the patient's head against the lift.**

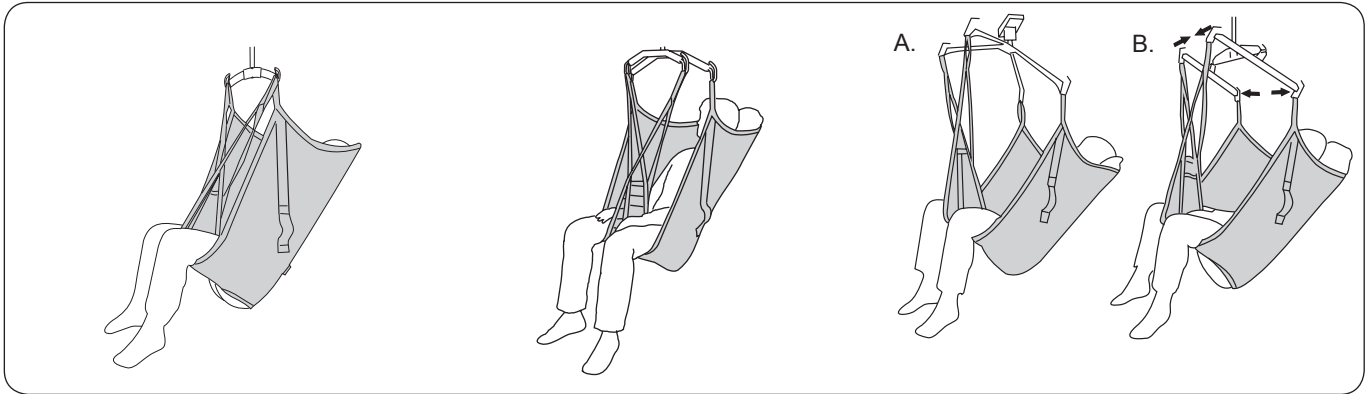
## Lifting to the Floor



When lifting to the floor, the wheels of the lift should not be locked. When the patient touches the floor, the lift should be pulled backwards to give space for the head. **Tip:** If lifting is to a thinner gym mat, the lift can be pushed in under this mat, so that the mat acts as a soft protection between the lift and the patient. If the sling is to be removed, see "Removing the Sling when the Patient is Lying in Bed", page 6.

# Fitting Advice

## Different Sitting Positions



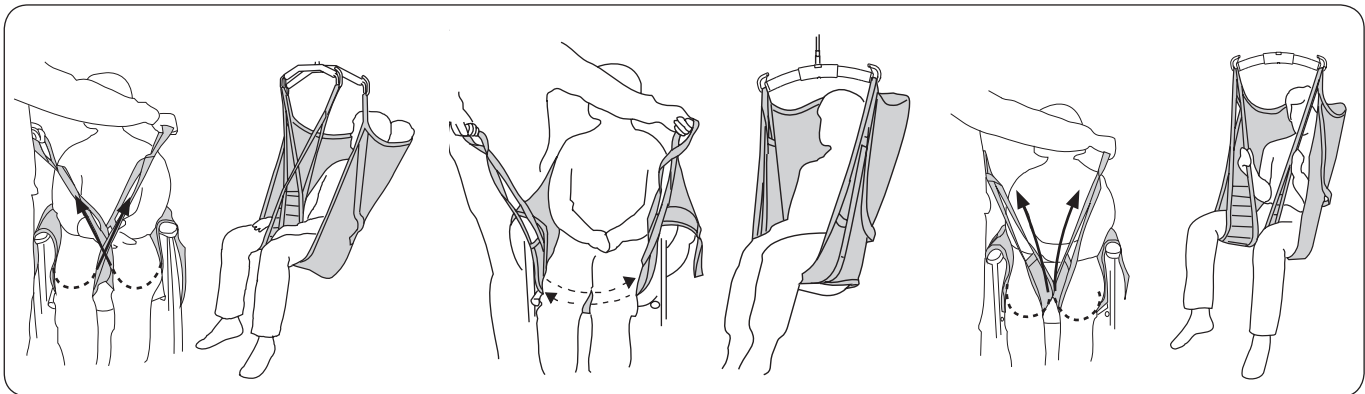
Liko Original HighBack Sling in **two-point suspension** provides for a slightly reclined sitting posture with excellent head support and approx. 90 degrees angle in the hip joint.

Liko Original HighBack Sling in combination with the **Universal TwinBar 670** provides larger width at the shoulders than at the leg supports, which is suitable if the patient is large or sensitive to pressure to the shoulders.

- A. In combination with Liko **Cross-bar** a slightly more reclined posture and a larger angle is obtained. Complete with a small pillow behind the head.
- B. In combination with **SideBars** a slightly more reclined posture and a larger width at the shoulders than at the leg supports is provided, which is suitable if the patient is sensitive to pressure to the shoulders.

## Different Ways of Connecting Leg Supports

Before a connection alternative is chosen, an individual assessment should be performed to anticipate possible risks. The following are general advice since the same principles are valid for several sling models.



**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.

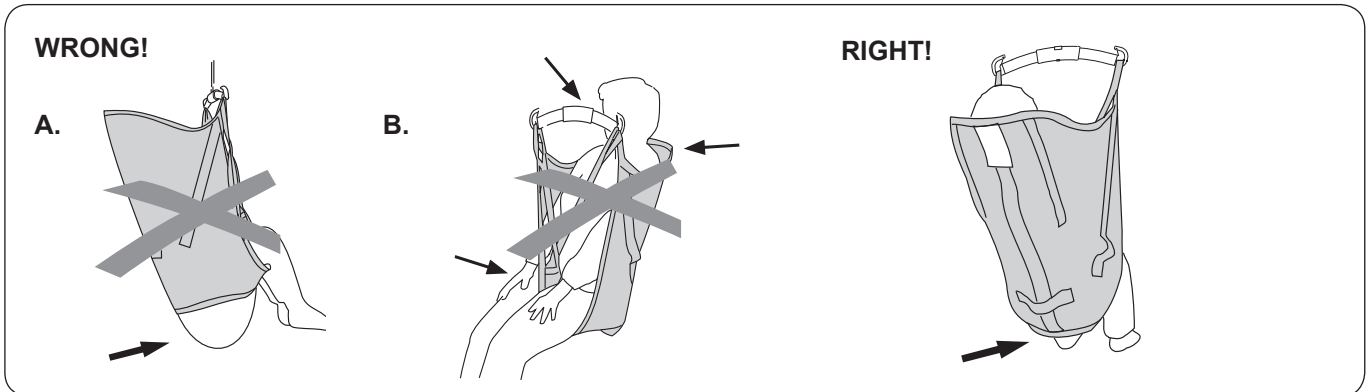
**Overlapped under both thighs.**  
This can be appropriate, for example, when lifting a patient with amputated legs. **Tip:** In order to avoid the patient's sitting posture being too reclined, Extension Loops can be attached to the leg support loops.

**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?

The following are general advice since the same principles are valid for several sling models.



**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. A sling that is too small** can cause the leg supports to cut into the groin, causing discomfort, and the sling bar to be too close to the face and/or the back to get insufficient support.

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 Original HighBack Sling. 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 in). In this case, it is the outer leg support loop which should be connected to the sling bar.

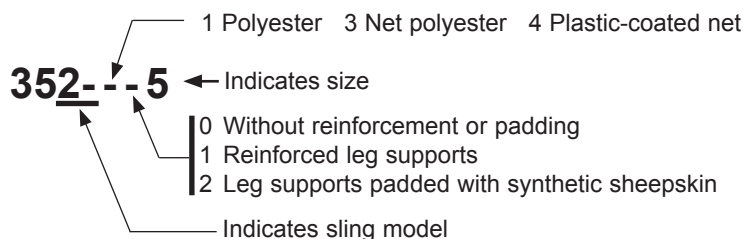
# Overview Liko Original HighBack Sling, Mod 20, 21

Product	Prod. No.	Size		Patient's Weight <sup>1</sup>	Max. Load <sup>2</sup>
Original HighBack Sling	3520 -- 2 <sup>3</sup>	XXS	Extra Extra Small	-15 kg (33 lbs)	200 kg (440 lbs)
Original HighBack Sling	3520 -- 3	XS	Extra Small	15-20 kg (33-44 lbs)	200 kg (440 lbs)
Original HighBack Sling	3520 -- 4	S	Small (child)	20-30 kg (44-66 lbs)	200 kg (440 lbs)
Original HighBack Sling	3521 -- 5	MS	Medium Slim (slim adult)	30-50 kg (66-110 lbs)	200 kg (440 lbs)
Original HighBack Sling	3520 -- 5	M	Medium	40-80 kg (88-176 lbs)	200 kg (440 lbs)
Original HighBack Sling	3520 -- 6	L	Large	70-120 kg (154-264 lbs)	200 kg (440 lbs)
Original HighBack Sling	3520 -- 7	XL	Extra Large	110-250 kg (242-550 lbs)	500 kg (1,100 lbs)
Original HighBack Sling	3520 -- 8	XXL	Extra Extra Large	200- kg (440- lbs)	500 kg (1,100 lbs)

<sup>1</sup> The indicated patient weight is only a guideline – there may be deviations.

<sup>2</sup> For retained maximum load, lift/accessories intended for the same load or more are required.

<sup>3</sup> Made to order sling.



## Combinations

Recommended combinations of the Liko Original HighBack Sling and Liko's sling bars:

	SlingBar Mini 220	Slim 350	Universal 350	Standard 450	Universal 450	Universal 600	Wide 670	Univ. TwinBar 670	Cross-bar	Sling Cross-bar 450	Sling Cross-bar 670	SideBars + Slim 350	Univ. SideBars + Universal 350	SideBars + Standard 450	Univ. SideBars + Universal 450
Original HighBack Sling, XXS	2	1	1	1	1	4	3	3	2	2	3	2	2	2	2
Original HighBack Sling, XS	2	1	1	1	1	4	3	3	1	1	3	2	1	2	1
Original HighBack Sling, S	2	1	1	1	1	3*	3	3	1	1	3	2	1	2	1
Original HighBack Sling, MS	3	2	2	1	1	3*	3	2	1	1	1	2	1	2	1
Original HighBack Sling, M	3	2	2	1	1	3*	1	1	1	1	1	2	1	1	1
Original HighBack Sling, L	3	3	3	1	1	3*	1	1	1	2	1	2	1	1	1
Original HighBack Sling, XL	4	3	3	2	1	3*	1	1	2	2	1	3	2	1	1
Original HighBack Sling, XXL	4	4	4	4	3	3*	2	2	2	4	1	4	4	2	2

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

\* May cause premature wearing of the sling.

## 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 fulfil the EN ISO 10535 requirements.



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