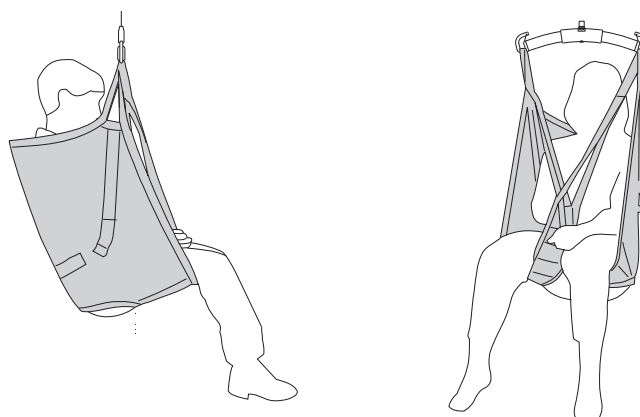


Instruction Guide



Product Description

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. If the patient needs support for the head the accessory Head Support (Prod. No 3651115) can be used. If that do not give enough support for the patient's head it is recommended to use a high back sling, e.g. Original HighBack Sling Mod 200/210 or Soft Original HighBack Sling Mod 26. 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 a twin bar 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, it is recommended to use 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. 002

The UniversalSling Mod. 002 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 000.

Suitable lifts

The UniversalSling can be used along with all of Liko's overhead and mobile lifts. You can choose between the overhead lifts LikoGuard™, Likoall™, and Multirall™ or the mobile lifts Golvo™, Viking™, Uno™, and Liko™ M220/M230.

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

Symbol description



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



reference to read instruction guide for detailed information.

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.
- The total maximum load for a lift system is always determined by the product in the system with the lowest specified maximum load.
- For safety and hygiene reasons, use individual slings.
- Plan the lifting operation so that it can be done as safely and smoothly as possible.
- Check that the lifting accessory hangs vertically and can move freely.
- Although the Liko sling bars are equipped with latches, special caution must be exercised: before the patient is lifted from the underlying surface, but when the straps are fully extended, make sure the straps are correctly connected to the sling bar hooks.
- 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. Use the patient's ability to actively participate in the operations.
- When the sling is not being used, do not place in direct sun light.

CE Medical Device Class I Product

Liko UniversalSling complies with the harmonized standard ISO10535:2006.

The management system for both manufacturing and development of the product is certified in accordance with ISO9001 and its equivalent for the medical device industry, ISO13485. The management system is also certified in accordance with the environmental standard ISO14001.

PATENT www.hill-rom.com/patents

May be covered by one or more patents. See above Internet address.

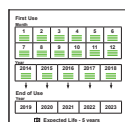
The Hill-Rom companies are the proprietors of European, US, and other patents and pending patent applications.

Design and Quality by Liko in Sweden

Liko's products undergo continuous development, which is why Hill-Rom reserve the right to make product changes without prior notice. Contact your 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 be used only 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. Instruction guides can be downloaded, free of charge, at www.liko.com.



Before First Use!

Before the sling is used the first time, the date (year and month) should be marked on the label "First Use" (placed under the label "Perform Inspection"), please see the example below. The marking is made by cutting the green threads in the relevant squares. The threads are cut with one cut in the middle of the square. Do not cut off the threads completely - let the cut thread ends remain.

Example: February 2014

First Use	
Month	Year
1	2014
2	2015
3	2016
4	2017
5	2018
6	2019
7	2020
8	2021
9	2022
10	2023
11	
12	

End of Use

Year
2019
2020
2021
2022
2023

Expected Life - 5 years

Cut the threads in the middle of the square.



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.

If the sling is used for bath or shower: After use in bath and shower situations, the sling should be placed so that it dries as soon as possible.

Washing Instructions: Please see the sling's product label and the attached appendix "Care and Maintenance of Liko Slings".

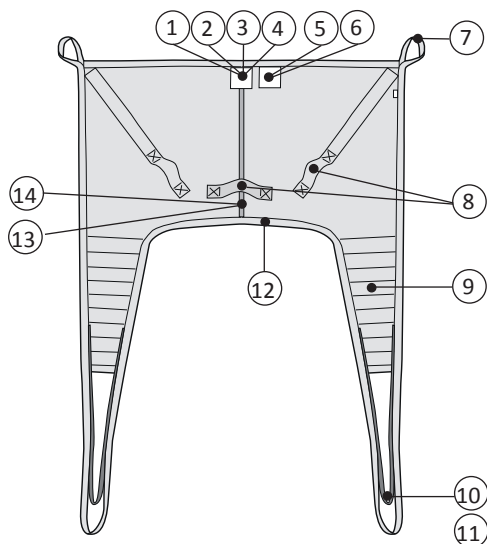
Expected Life Time


If the product is made of green woven polyester fabric, the product has an expected life time of 5 years. If the product is made of plastic coated net or grey net polyester, the product has an expected life time of 3 years. The expected life time is based on 10 uses per day and washing once per week, according to washing instructions. Hill-Rom recommends the product be used only during its expected life time.

Periodic Inspection

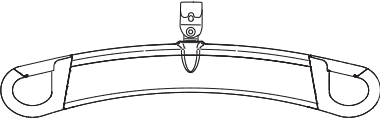
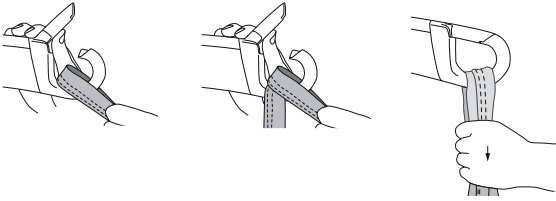
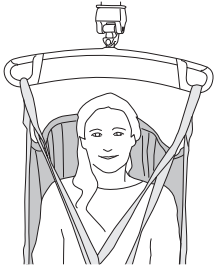
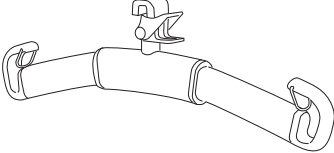
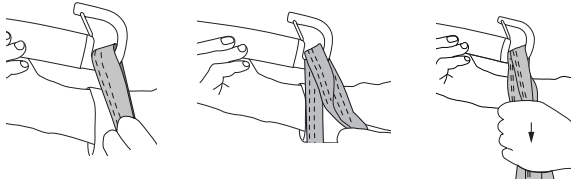

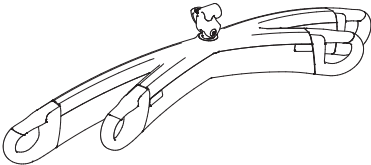
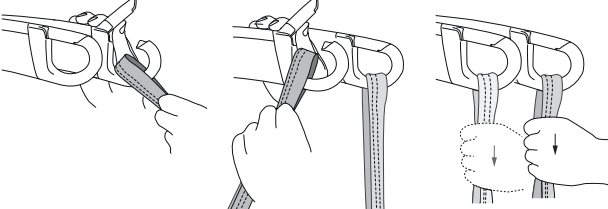
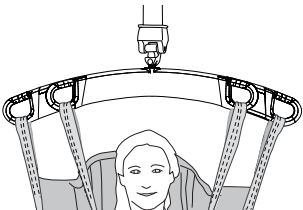
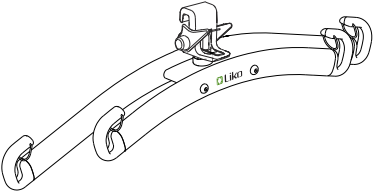
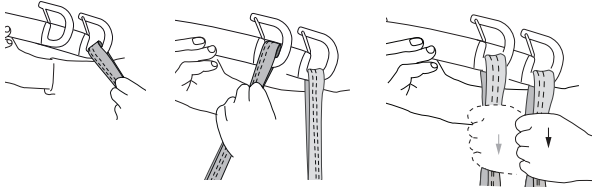
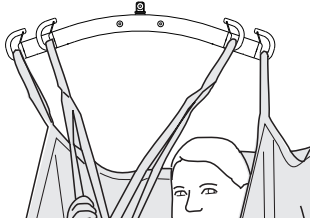
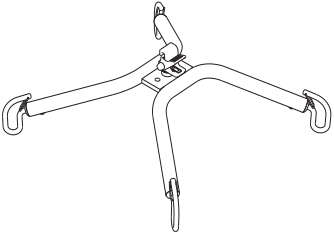
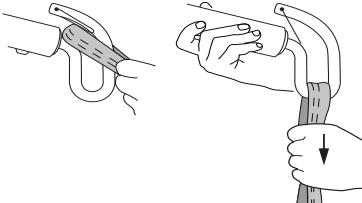
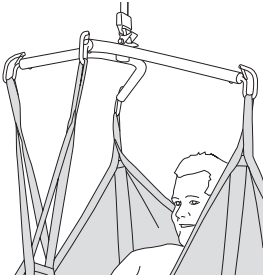
The product must be inspected at least once every 6 months. More frequent inspections might be required if the products are used or washed more often than normal. See Liko's protocol Periodic Inspection for the respective product.

Definitions

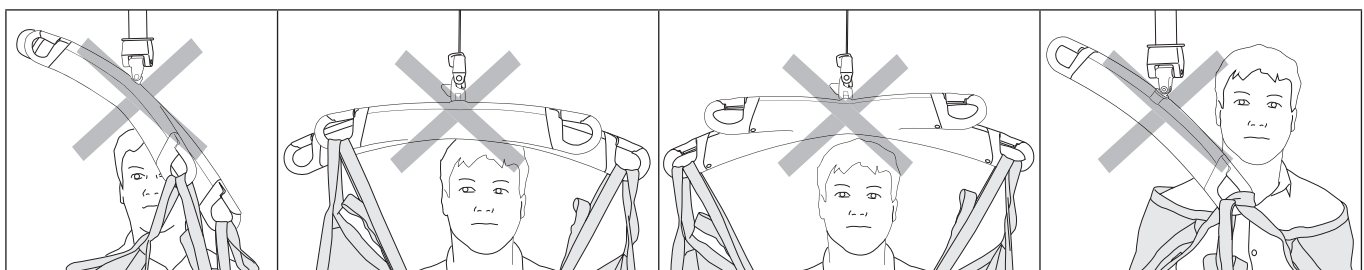


1. Product label
2. Label: Manufacturing year and month ()
3. Label: Serial number (S/N)
4. Label: Individual marking (Belongs to)
5. Label: Check and inspect (Perform Inspection)
6. Label: The first time the product is used (First Use)
7. Upper strap loop
8. Handle
9. Leg support
10. Shortening position (mod 000)
11. Outer leg support loop
12. Lower edge
13. Centre back strap
14. Size marking

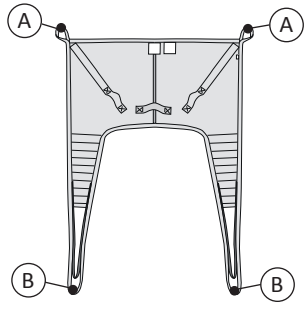
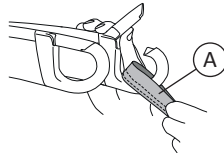
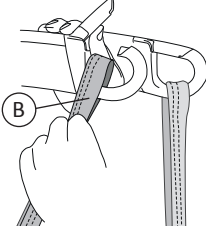
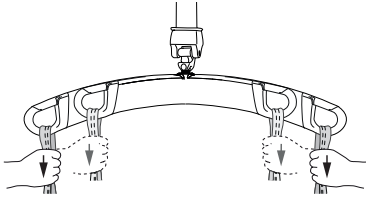
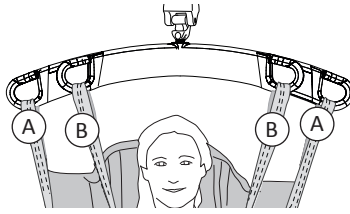
How to attach a sling to different sling bars

Sling bar	Sling loops to sling bar hooks	Correct
 <p>SlingGuard™</p>		
 <p>Universal</p>		
 <p>SlingGuard™ Twin</p>		
 <p>Universal Twin</p>		
 <p>Cross-bar</p>		

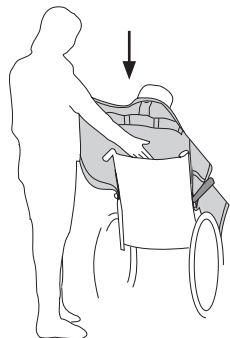
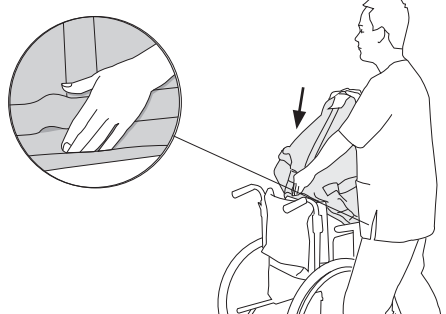
Example: Misuse



How to attach a UniversalSling to a sling bar with 4 hooks (twin bars and cross bars)

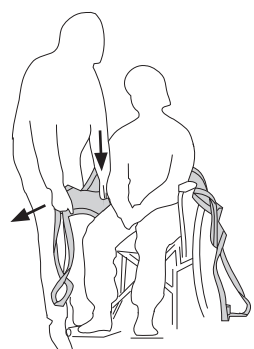
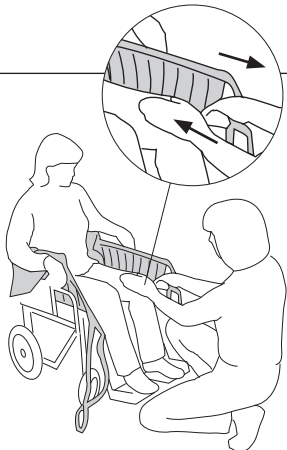
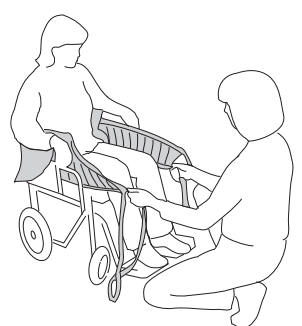
 <p>Upper strap loops (A)</p> <p>Leg support loops (B)</p>	<p>1.</p>  
<p>2.</p> 	<p>3.</p>  <p>The illustrations 1, 2, and 3 shows a twin bar but this also applies to a Cross-bar.</p>

Lifting from the Sitting Position

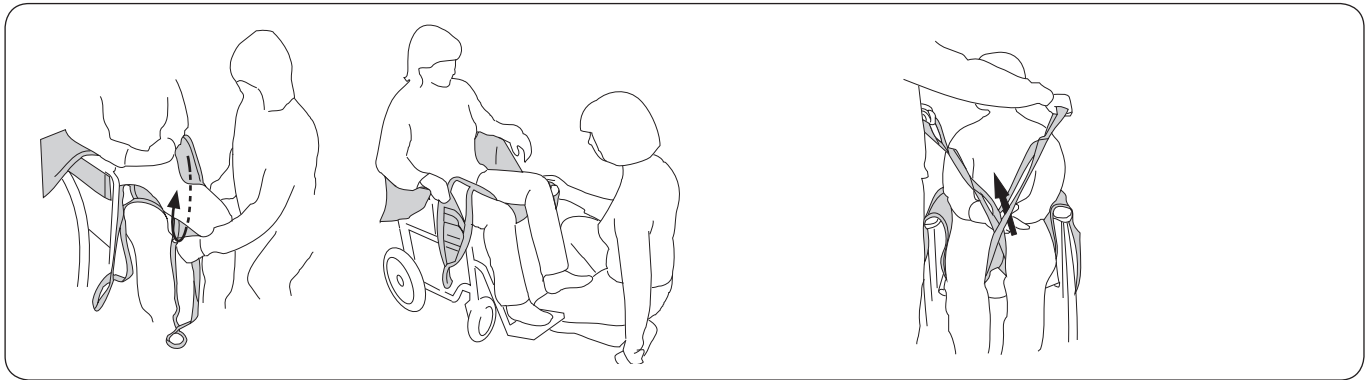
Place the sling behind the patient's back with the product label outwards. Fold up the lower edge of the sling around your finger tips to facilitate guiding the sling into place.

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. Note: Correct positioning is facilitated if the patient leans/is leaned forward slightly.

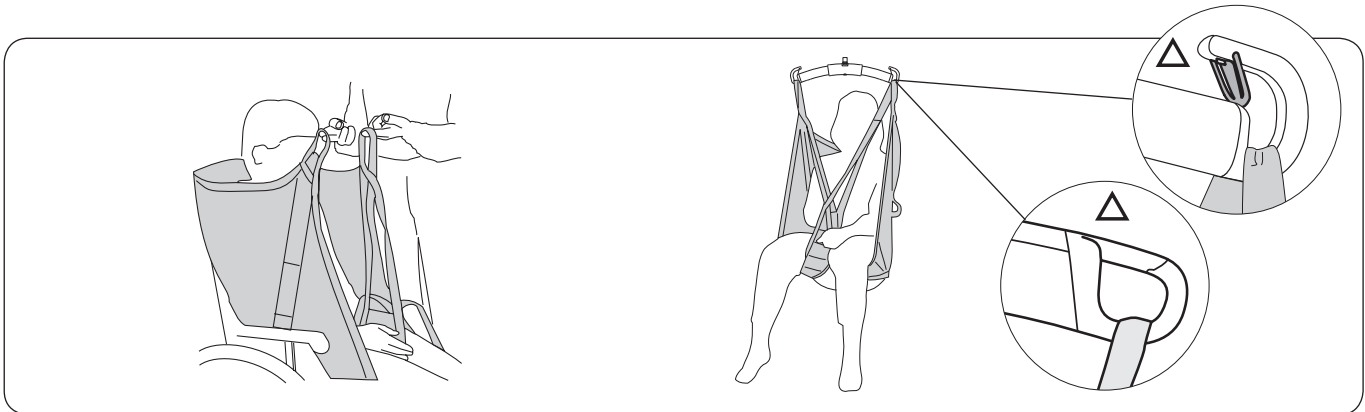
Pull the sling's leg supports forward along the outside of the patient's thighs. Place the palm of your hand between the patient's body and the sling and push the leg support's lower edge down towards the seat. Simultaneously, pull the leg support forward with the other hand to stretch it.

Pull the leg supports forward to smooth out any creases in the back. Check that both leg supports protrude the same distance. Note: 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.
Note: 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 10.

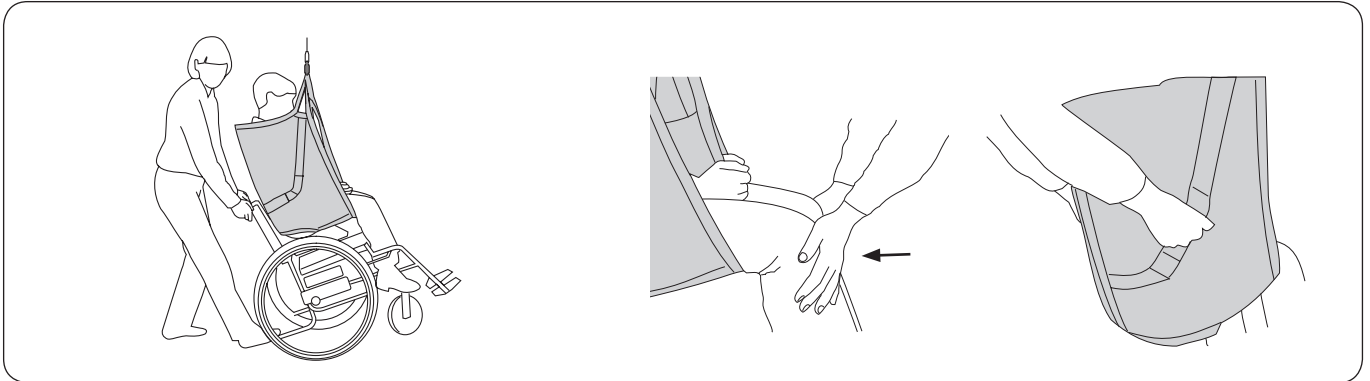


Note: Check that all suspension loops have the same length, i.e., are at an equal height when they are stretched prior to lifting. Adjust the position of the sling if they are not at an equal height.

First connect the upper strap loops to the sling bar hooks, then the leg support loops. See page 4-5 for instructions on how to attach the sling loops to different sling bars. Lift the patient.

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

It is recommended to remove the sling after the transfer. If for some reason it is preferable to leave the sling in the chair after transfer, it is recommended to use a sling in 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 the leg support up.

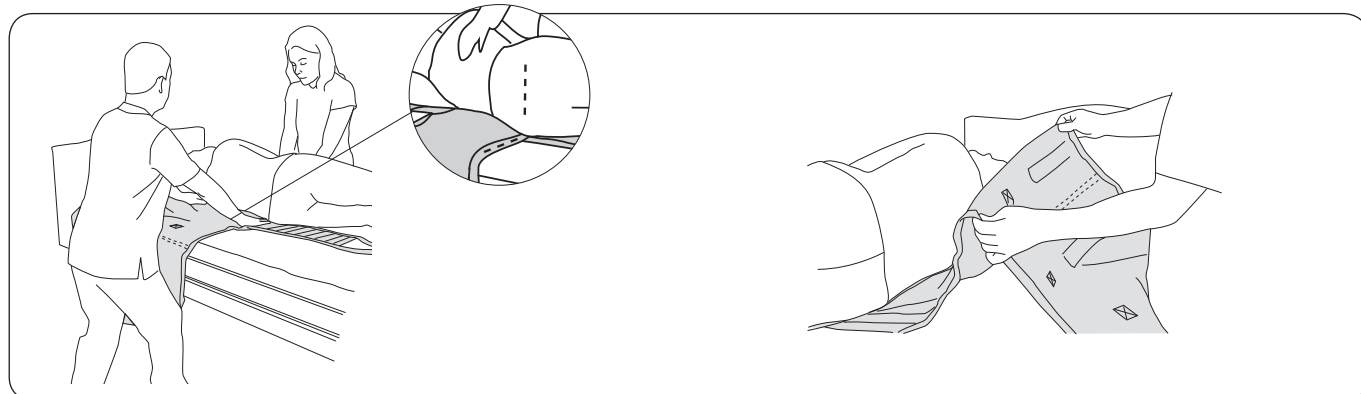
Lifting from the Bed

The sling can be applied in different ways depending of the status of the patient. Either it is applied with the patient lying in bed or sitting in bed. If an advanced pressure-relieving mattress is used, it can to advantage be inflated maximally to facilitate the application of the sling.

Remember your own work posture and the patient's comfort. Use the bed's functions for raising and lowering. Good work posture is obtained when the mattress is level with the caregiver's knuckles when the arms are held completely down. Depending on the burden on the caregiver, an evaluation of how many caregivers are needed for the operation must be made on a case to case basis.

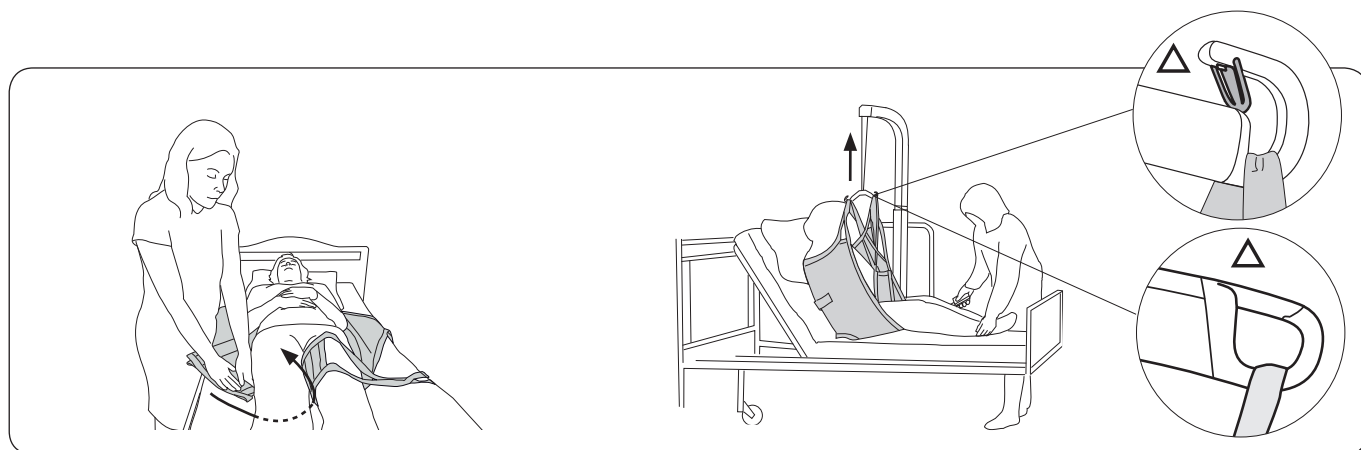
Applying the Sling when Lying in Bed

For lifting from a supine position without the possibility of raising the head end of the bed or otherwise supporting the head, it is recommended to use Liko Soft Original HighBack Sling Mod. 26, or alternatively Liko Original HighBack Sling Mod. 200, 210, which all provide support for the head.



Turn the patient to the side. This operation is facilitated if the patient himself can contribute by gripping the bed rail on the side to which he is to be turned. Place the edge of the sling towards the back of 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. Check that the fold covers the sling's edge which is in towards the back of the patient in order to reduce the friction. Turn back the patient gently and pull out the sling on the other side. With this application technique, the patient needs to be turned once only.



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 knee. 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 10.

Raise the head end of the bed. First connect the upper strap loops to the hooks of the sling bar, then the leg support loops. See page 4-5 for instructions on how to attach the sling loops to different sling bars. Lift the patient.

Applying the Sling when Sitting in Bed

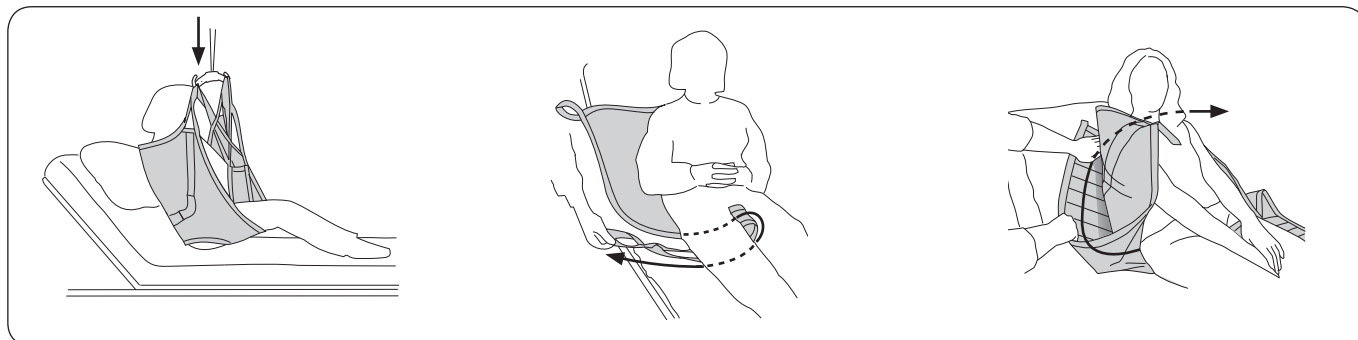
Raise the head end of the bed behind the patient. Lay the sling on the bed with the product label facing down towards the mattress. Slide the sling down behind the patient's back so that the lower edge is **level with the coccyx**. **Note!** The application is facilitated if the patient leans/is leaned forward.

Lifting to the Bed

It is recommended to remove the sling after the transfer. If for some reason it is preferable to leave the sling in the bed, it is recommended to use a sling made of net polyester.

Remember your own work posture and the patient's comfort. Use the bed's functions for raising and lowering. Good work posture is obtained when the mattress is level with the caregiver's knuckles when the arms are held completely down. Depending on the burden on the caregiver, an evaluation of how many caregivers are needed for the operation must be made on a case to case basis.

Removing the Sling when Sitting in Bed

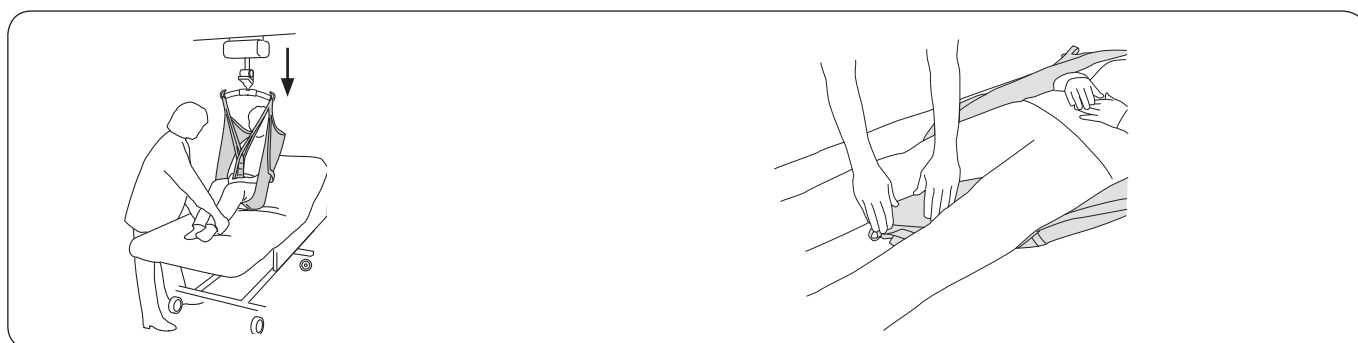


Position the patient above the bed. Raise the head end of the bed for the patient's comfort. Lower the patient onto the bed.

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

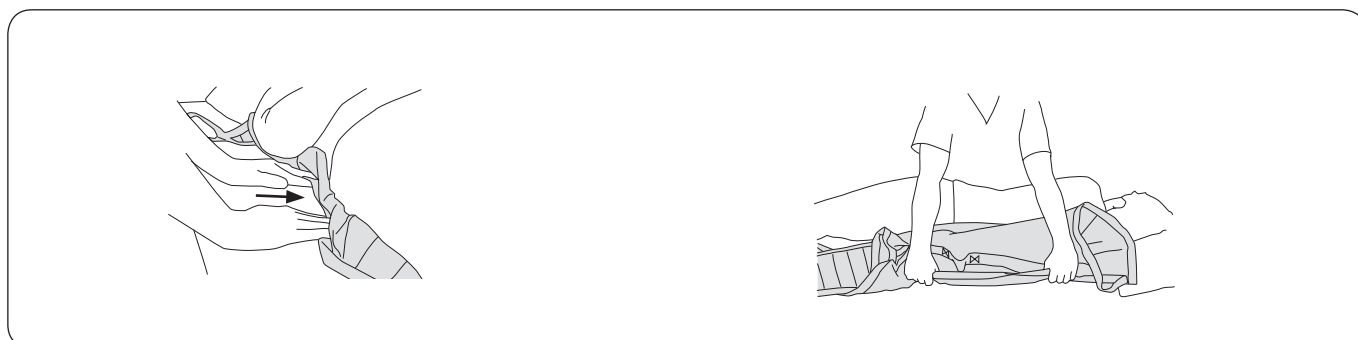
Remove the sling by pulling one of the leg supports behind the sling and over to the opposite side.

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.



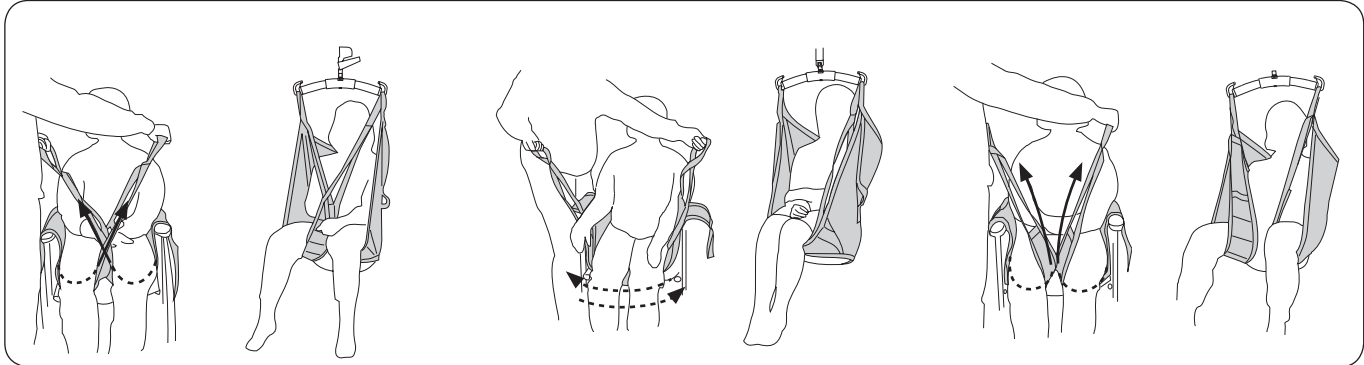
Grasp the edge of the sling. Push in the sling under itself. Press the sling against the mattress and in under the patient.

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

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.

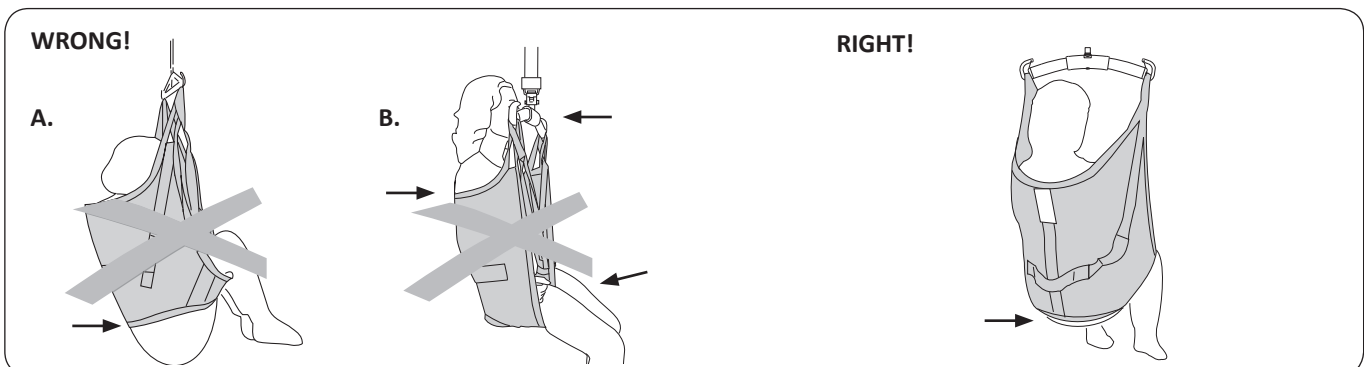
This can be appropriate, for example when lifting a patient with amputated legs. **Note:** In order to avoid the patient's sitting posture being too reclined, Extension Loops can be attached to the leg support loops.

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?



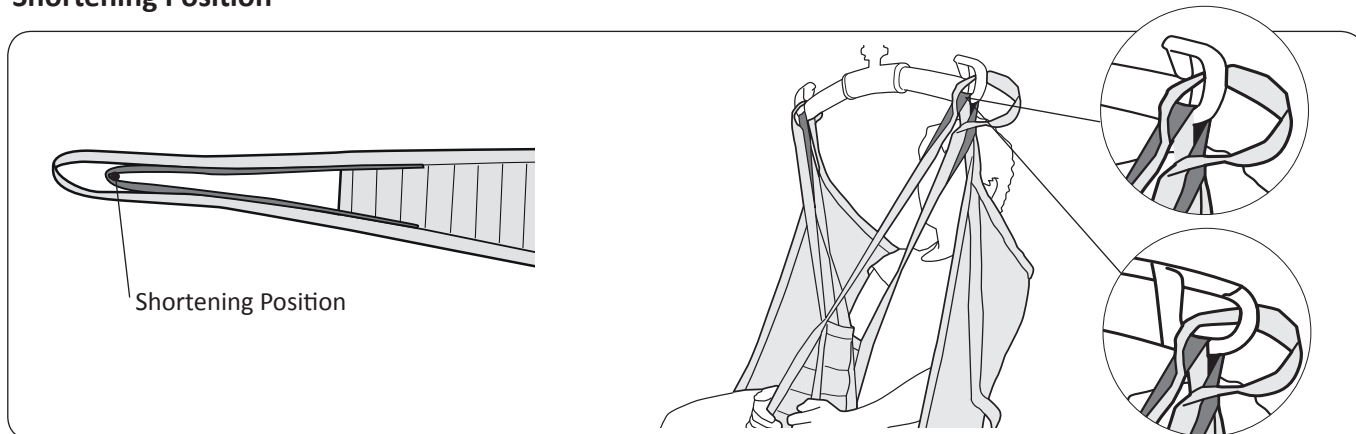
A. Risk of sliding out. The buttocks hang down. The sling may be too large. It can also be due to the fact that the sling has not been pulled down the patient's back sufficiently.

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 crotch causing discomfort, 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



Our sling models are carefully designed to ensure that the patient always sits with pressure well distributed between legs and back section for good support during transfers. However, in certain cases it can be preferable to use the inner setting, the "shortening position", on the leg support loop to change the patient's sitting position.

Note: This does **not** apply if you have an older model of the UniversalSling, Mod. 00/02, with an earlier design of the shortening position. For a description of the shortening procedure for Mod. 00/02, please contact Hill-Rom to obtain the instruction guide for that model.

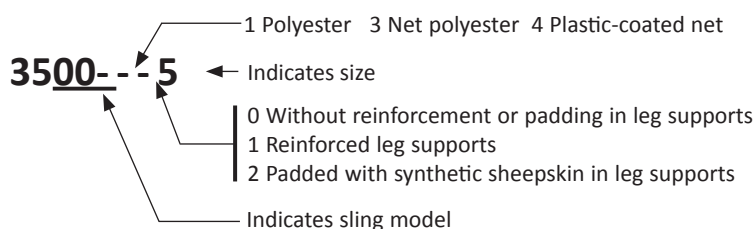
In cases where the shortening position is used, it is recommended that you also connect the outer leg support loop to the sling bar hook in order to have better visual control of the loops.

Overview Liko UniversalSling, Mod. 000, 002

Product	Prod. No.	Size	Patient's Weight ¹	Max. Load ²
Liko UniversalSling	35000 -- 4	S	35-55 kg (77-121 lbs)	200 kg (440 lbs)
Liko UniversalSling	35000 -- 1	M-Slim (slim adult)	45-70 kg (99-154 lbs)	200 kg (440 lbs)
Liko UniversalSling	35000 -- 5	M	60-90 kg (132-198 lbs)	200 kg (440 lbs)
Liko UniversalSling	35000 -- 6	L	80-120 kg (176-264 lbs)	200 kg (440 lbs)
Liko UniversalSling	35000 -- 7	XL	110- kg (242- lbs)	300 kg (660 lbs)
Liko Universal HighLevel Sling	35002 -- 5	M	60-90 kg (132-198 lbs)	200 kg (440 lbs)
Liko Universal HighLevel Sling,	35002 -- 6	L	80-120 kg (176-264 lbs)	200 kg (440 lbs)

¹ The indicated patient weight is a guideline only – there may be deviations.

² To maintain maximum load, lift/accessories intended for the same load or more are required.



Recommended combinations

Recommended combinations of the Liko™ UniversalSling and Liko's sling bars:

	Mini 220	Slim 350	Universal 350	Sling bars 450 ¹	Universal 600	Wide 670	Twin bars 670 ²	Sling Cross-Bar 450	Sling Cross-Bar 670	SideBars + Slim 350	Univ. SideBars + Universal 350	SideBars + Standard 450	Univ. SideBars + Universal 450
UniversalSling, S	3	2	2	1	3	2	2	1	2	3	2	2	2
UniversalSling, M-Slim	3	2	2	1	3	1	1	1	1	3	1	2	1
UniversalSling, M	3	2	2	1	3	1	1	1	1	3	1	2	1
UniversalSling, L	3	2	2	1	1	1	1	1	1	3	1	2	1
UniversalSling, XL	3	3	3	2	1	1	1	1	1	3	1	1	1
Universal HighLevel Sling, M	3	2	2	1	3	1	1	3	3	3	3	3	3
Universal HighLevel Sling, L	3	3	2	1	3	1	1	3	3	3	3	3	3

¹ Sling bars 450 relates to Universal SlingBar 450 Prod. No. 3156075, 3156085, and 3156095, SlingBar Standard 450 Prod. No. 3156001, 3156003, 3156007, and 3156016, and also SlingGuard 450 Prod. No. 3308020 and 3308520 .

² Twin bars 670 relates to Universal TwinBar 670 Prod. No 3156077, and 3156087, and also SlingGuard 670 Twin Prod. No. 3308040 and 3308540.

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.



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Enhancing outcomes for
patients and their caregivers:

