

TraumaTransfer™ Users manual

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“WE INVENT THE FUTURE”

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TraumaTransfer™ Users manual

1. Description

TraumaTransfer™ is a trauma mattress for Intra-Hospital use, an invention and designed by the Swedish inventor **Anders Erlandsson** and **Eson Comfort**.

It's optimised for CT and other X-ray and will significantly reduce the time used on transfer and positioning. We also offer a 100% MR-Safe version that is fully compatible with MRI.

The construction consists of a durable cover made of PVC/Trevira CS with **EasyOFF™** technology, a penetration layer in EVA, pressure-relieving visco-elastic foam and a carbon fibre core.

Along the sides are grip-bars in HD-polyethene - **EsonGrip™**.

TraumaTransfer™ shall be placed in the emergency room, all accessories attached and ready to use.

It can also be used when patients are to be moved to another hospital. During transportation it's very important to secure **TraumaTransfer™** on the trolley in the ambulance, with **EasySafety™** and **TT-Transporter™** - inventions by Eson Comfort and the only certified concept for secure transport.

2. Applications

TraumaTransfer™ is applicable for use in conjunction inside Intra-Hospital transfer and positioning of:

- Trauma patients
- Patients with cerebral aneurysm or AVM
- Patients from ICU going to CT-examinations or other X-ray.
- Extended use in the MR-safe version - fully compatible with MRI.

TraumaTransfer™ can also be used in patient transfer between hospital.

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3. Warnings

! Always use the handles when sliding the **TraumaTransfer™** between trolley and examination tables

! **TraumaTransfer™** is designed for sliding only. Never carry patients as on a traditional spineboard.

! **TraumaTransfer™** has a low friction underside - risk of sliding if not secured. Never leave a patient alone. Always use the body straps and secure-straps in connection with Trendelenburg positioning. Use **TT-Tranporter™** and **EasySafety™** during transport between hospitals.

! Be sure that the **VFLEXFIX™** straps for chin/head and the body straps, are properly tightened. Never use straps that are worn-out.

NOTE! **VFLEXFIX™** are for single-use only.

! If the patient is showing signs of beginning to vomit, the **TraumaTransfer™** needs to be tilted, by lifting one longside. To prevent movement in the spine, always use **TT-Pelfix™** or **TT-SIP™** cushions to prevent the pelvis from sliding.

NOTE! Only the following products are certified and shall be used to achieve a secure immobilisation on **TraumaTransfer™**:

Art.NO:	Name
TTCOVER2	TT-Cover 2014™ , complete cover
TTCOVERS	TT-Cover Simple™ , complete cover of mattress only
TTCOVERKL	TT-Cover K-Light™ , complete cover, without cushions (TTHEADFIXKLH)
TTCOVERKL2	TT-Cover K-Light 2020™ , complete cover, without cushions (TTHEADFIXKLH2)
TTCOVERM2, TTCOVERKLM and TTCOVERKLM2 are the paediatric versions of the above.	
TTHEADFIX2	TT-Headfix 2014™ , only head immobilisation
TTHEADFIXKL	TT-Headfix K-Light™ , only head immobilisation, without cushions (TTHEADFIXKLH)
TTHEADFIXKL2	TT-Headfix K-Light 2020™ , only head immobilisation, without cushions (TTHEADFIXKLH2)

TTHEADFIX2, TTHEADFIXKLM and **TTHEADFIXKLM2** are the paediatric versions of the above.

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! Be sure that the patient's arms are not resting on the handles. It might cause nerve damage. Use padding or put the patient's arms on the chest if it is impossible to place the arms inside the handles.

! Be sure that the wheels on the trolley or bed are locked before sliding the **TraumaTransfer™** over to X-ray table or other tables.

! Be aware of the risk of pressure wounds. Don't let the patient stay on the **TraumaTransfer™** longer than necessary. We have cases with patient's staying on **TraumaTransfer™** more than 12 hours without suffering from pressure injuries but we don't recommend that.

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4. Directions for use

4:1 Transferring of patients to TraumaTransfer™

A. Patients arriving on a spineboard:

Procedure 1:

Put two **BedSlide™** under the patient (picture 1). Keep the patients head safely immobilised, carefully slide the patient over to **TraumaTransfer™** (picture 2). **NOTE!** The pictures 1 - 10 shows **TraumaTransfer™** without the necessary **TT-Cover™**.



Picture 1



Picture 2

Procedure 2:

Put the spineboard directly on top of **TraumaTransfer™**. Make a log-roll maneuver and remove the spineboard (picture 3 and 4).



Picture 3



Picture 4

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4. Directions for use

4:1 Transferring of patients to TraumaTransfer™

A. Patients arriving on a spineboard:

Procedure 3:

Place the spineboard directly on top of **TraumaTransfer™**. Lift the patient slightly in the clothes and remove the spineboard towards the foot-end of the bed (picture 5).



Picture 5

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4. Directions for use

4:1 Transferring of patients to TraumaTransfer™

B. Patients arriving on vacuum-mattress or ambulance mattress:

Procedure 1:

Use the scoop to transfer the patient to **TraumaTransfer™**. Remove the scoop immediately (picture 6, 7, 8). **NOTE!** The pictures 1 - 10 shows **TraumaTransfer™** without the necessary **TT-Cover™**.



Picture 6



Picture 7



Picture 8

Procedure 2:

Make a log-roll manoeuvre and put two **BedSlide™** under the patient. Keep the patients head safely immobilised, carefully slide the patient over to **TraumaTransfer™** (picture 9, 10).



Picture 9



Picture 10

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4. Directions for use

4:2 Immobilisation of patient in minor trauma cases, without bleeding and fractures

4:2:1 Fixation of head with TT-Headfix 2014™ and TT-Headfix 2014™ Mini

NOTE! The disposable TT-Headfix 2014™ is delivered complete with velour-straps.

TT-Headfix 2014™ and TT-Headfix 2014™ Mini Paediatric

A. Mount **TT-Headfix 2014™** on **TraumaTransfer™**. The wider end downwards. Mount the velcro on the underside of the neck-profile on **TraumaTransfer™**. Now it's ready to use!



B. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Pull out the black plastic profiles 10 cm and gently turn the left profile counterclockwise and the right profile clockwise, until they are in an almost up-right position. Gently push them down again.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way. Avoid covering the ears!



Note! Ensure straps are sufficiently tightened.

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4. Directions for use

4:2 Immobilisation of patient in minor trauma cases, without bleeding and fractures

4:2:2 Fixation of head with TT-Headfix K-Light 2020™ and TT-Headfix K-Light 2020™ Mini

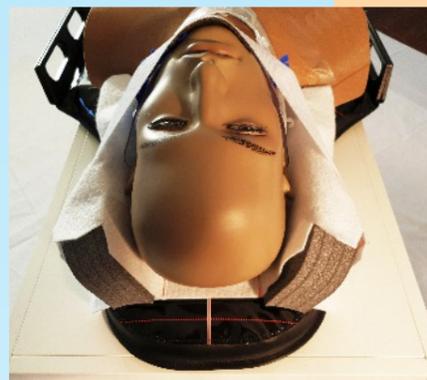
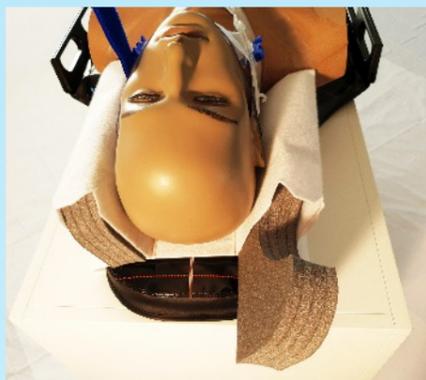
NOTE! The disposable TT-Headfix K-Light 2020™ is delivered complete with velour-straps but without the needed head cushions (TTHEADFIXKLH2 and TTHEADFIXKLMH2). They are ordered separately.

TT-Headfix K-Light 2020™ and TT-Headfix K-Light 2020™ Mini Paediatric

A. Mount **TT-Headfix K-Light 2020™** on **TraumaTransfer™**. Mount the velcro on the underside of the neck-profile on **TraumaTransfer™**. Now it's ready to use!



B. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Place the head cushion (TTHEADFIXKLH2 or TTHEADFIXKLMH2) according to the picture.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way.

Note! Ensure straps are sufficiently tightened.

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4. Directions for use

4:2 Immobilisation of patient in minor trauma cases, without bleeding and fractures

4:2:3 Fixation of head with TT-Headfix K-Light™ and TT-Headfix K-Light™ Mini

NOTE! The disposable TT-Headfix K-Light™ is delivered complete with velour straps but without the needed head cushions (TTHEADFIXKLH and TTHEADFIXKLMH). They are ordered separately.

TT-Headfix K-Light™ and TT-Headfix K-Light™ Mini Paediatric

A. Mount **TT-Headfix K-Light™** on **TraumaTransfer™**. The wider end downwards. Mount the velcro on the underside of the neck-profile on **TraumaTransfer™**. Now it's ready to use!



B. Place one head cushion (**TTHEADFIXKLH** or **TT-HEADFIXKLMH**) according to the picture below. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Then put the second head cushion in place. Secure the head cushions with the two velcro straps on top of the **TT-Headfix K-Light™**.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way. Avoid covering the ears!



Note! Ensure straps are sufficiently tightened.

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4. Directions for use

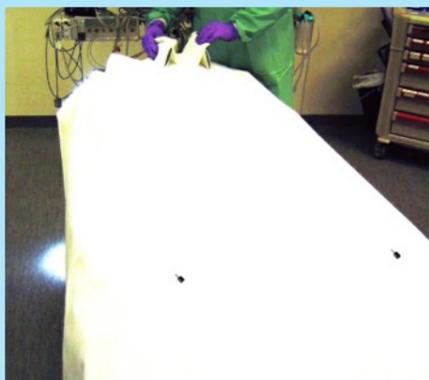
4:2 Immobilisation of patient in major trauma cases - unconsciousness, bleeding and fractures

4:2:3 Immobilisation with TT-Cover 2014™ and TT-Cover 2014™ Mini

NOTE! The disposable cover is delivered complete with velourstraps.

TT-Cover 2014™ and TT-Cover 2014™ Mini Paediatric

A. The elastics with the plastic "button" is to be mounted in the foot end of **TraumaTransfer™**. These shall be cleaned and be reused. Place the **TT-Cover 2014™** unfolded on **TraumaTransfer™**. Push through the "buttons" through the 25 mm:s "buttonholes" in the **TT-Cover 2014™**. Stretch the **TT-Cover 2014™** over the upper end. Mount the velcro on the underside of the neck-profile of **TraumaTransfer™**. Now it's ready to use!



B. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Pull out the black plastic profiles 10 cm and gently turn the left profile counterclockwise and the right profile clockwise, until they are in an almost up-right position. Gently push them down again.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way. Avoid covering the ears!



Note! Ensure straps are sufficiently tightened.

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4. Directions for use

4:2 Immobilisation of patient in major trauma cases - unconsciousness, bleeding and fractures

4:2:4 Immobilisation with TT-Cover Simple™ and TT-Cover Simple™ Mini

NOTE! The disposable cover is delivered complete with velour straps.

TT-Cover Simple™ and TT-Cover Simple™ Mini Paediatric

A. The elastics with the plastic "button" is to be mounted in the foot end of **TraumaTransfer™**. These shall be cleaned and be reused. Place the **TT-Cover Simple™** unfolded on **TraumaTransfer™**. Push through the "buttons" through the 25 mm:s "buttonholes" in the **TT-Cover Simple™**. Stretch the **TT-Cover Simple™** over the upper end. Mount the velcro on the underside of the neck-profile of **TraumaTransfer™** Now it's ready to use!



B. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Pull out the black plastic profiles 10 cm and gently turn the left profile counterclockwise and the right profile clockwise, until they are in an almost up-right position. Gently push them down again.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Center and secure the other strap over the forehead the same way. Avoid covering the ears!



Note! Ensure straps are sufficiently tightened.

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4. Directions for use

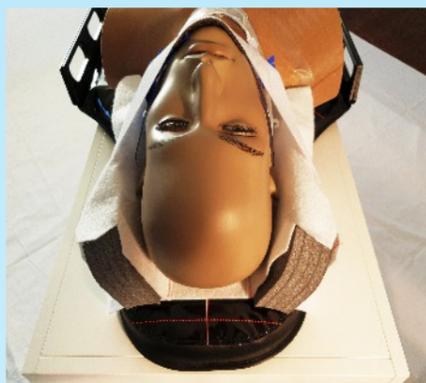
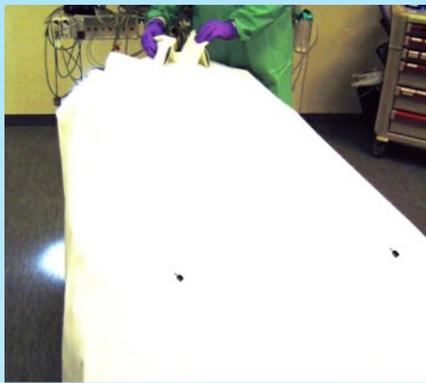
4:2 Immobilisation of patient in major trauma cases - unconsciousness, bleeding and fractures

4:2:5 Immobilisation with TT-Cover K-Light 2020™ and TT-Cover K-Light 2020™ Mini

NOTE! The disposable cover is delivered complete with velourstraps but without the needed head cushions (TTHEADFIXKLH2 and TTHEADFIXKLMH2). These are ordered separately.

TT-Cover K-Light 2020™ and TT-Cover K-Light 2020™ Mini Paediatric

A. The elastics with the plastic "button" is to be mounted in the foot end of TraumaTransfer™. These shall be cleaned and be reused. Place the TT-Cover K-Light 2020™ unfolded on TraumaTransfer™. Push through the "buttons" through the 25 mm:s "buttonholes" in the TT-Cover K-Light 2020™. Stretch the TT-Cover K-Light 2020™ over the upper end. Mount the velcro on the underside of the neck-profile of TraumaTransfer™. Now it's ready to use!



B. Place the patient centred with the head level with the top end of TraumaTransfer™. Place the head cushions (TTHEADFIXKLH2 or TTHEADFIXKLMH2) according to the picture.

Center the VFLEXFIX™-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way. Avoid covering the ears!

Note! Ensure straps are sufficiently tightened.

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4. Directions for use

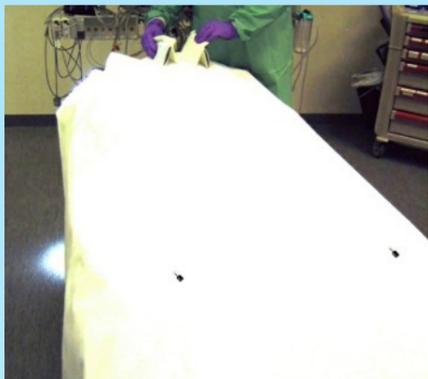
4:2 Immobilisation of patient in major trauma cases - unconsciousness, bleeding and fractures

4:2:6 Immobilisation with TT-Cover K-Light™ and TT-Cover K-Light™ Mini

NOTE! The disposable cover is delivered complete with velourstraps but without the needed head cushion (TTHEADFIXKLH and TTHEAD-FIXKLMH). This is ordered separately.

TT-Cover K-Light™ and TT-Cover K-Light™ Mini Paediatric

A. The elastics with the plastic "button" is to be mounted in the foot end of **TraumaTransfer™**. These shall be cleaned and be reused. Place the **TT-Cover K-Light™** unfolded on **TraumaTransfer™**. Push through the "buttons" through the 25 mm:s "buttonholes" in the **TT-Cover K-Light™**. Stretch the **TT-Cover K-Light™** over the upper end. Mount the velcro on the underside of the neck-profile of **TraumaTransfer™** Now it's ready to use!



B. Place the patient centred with the head level with the top end of **TraumaTransfer™**. Place the head cushion (TTHEADFIXKLH or TTHEAD-FIXKLMH) according to the picture.



Center the **VFLEXFIX™**-straps over the chin and press and secure the straps to the velcro on the outer sides. Centre and secure the other strap over the forehead the same way. Avoid covering the ears!



Note! Ensure straps are sufficiently tightened.

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4. Directions for use

4:2 Immobilisation of patient

4:2:7 Body immobilisation

TraumaTransfer™ comes with four body straps to secure the whole body. For higher demands we offer our 4-point strap solution and our cross-body strap solution. These solutions together with our **TT-Transporter™** and **TT-EasySafe™**, serve for secure transportation in ambulance.



Immobilisation of pelvis. **NOTE!** Always use the **TT-Pelfix™** or **TT-SIP™** cushions to prevent lateral movement or sliding.



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5. Cleaning and controls

Cleaning

1. Remove all loose parts.
2. TT-Headfix 2014™, TT-Headfix K-Light 2020™, TT-Headfix K-Light™, TT-Cover 2014™, TT-Cover K-Light 2020™ and TT-Cover K-Light™ are designed for single use only. Used products shall be put in waste that shall be burned. No material or fabrics produce any harmful toxic waste.
3. The body straps shall be washed in cold water to eliminate all blood and stains. After this first wash they can be washed in 60°.
4. The mattress shall be rinsed and disinfected with soap-alcohol solution or Vircon 1%.

NOTE! Avoid all forms of shower and high-pressure cleaning.

Controls

Daily control:

- Check that the mattress is properly cleaned.
- Check that **ALL** of the body straps and the foot strap, are attached to the mattress, complete with **TT-Cover 2014™**, **TT-Cover K-Light 2020™** or **TT-Cover K-Light™**.

Periodical control (once a week):

- Check the function of the **EsonGrip™** handles and that no screw is missing, replace them if necessary.
- Check the mattress for damages. If there are holes we recommend a reconditioning (**TTREK**)

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6. Technical description

A. Cover made of dense PVC/Trevira CS weave with **EasyOFF™** technology and sewn and sealed seams. The weave is pulling up to more than 2.500 N/5cm. Low friction underside with the same pulling-characteristics.

B. The filling is made of 40 mm:s visco elastic pressure-relieving layer, covered with a penetration protection of 3 mm EVA.

C The core consisting of 12 mm:s carbon fiber polycell or 24 mm:s Esoncore™ in the MR-Safe™ version.

D **Eson-Grip™** handles made of HD-polyethylene.

All fillings are flame resistant according to Swedish standard. No CFC is used during production. Gives no artefacts in CT or X-ray. Low attenuation of X-ray.

TraumaTransfer™ does not contain any metal parts.

Size: TraumaTransfer™ Adult 540 x 2000 x 60 mm

TraumaTransfer MR-Safe™ Adult 490 x 2000 x 60 mm

TraumaTransfer™ Mini Paediatric 440 x 1420 x 45 mm

Weight: Adult versions 9 kg and paediatric version 6 kg.

Warranty: 1 year of function

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