

Breaking the laws of motion

Patient transport. Easy. Powerful.



A powerful alliance

LINAK 

TENTE



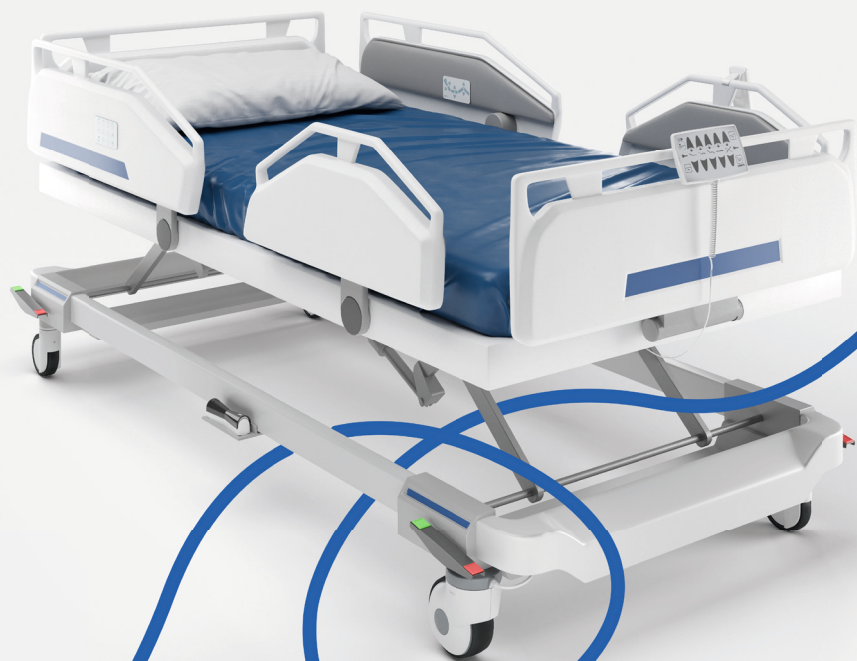
WeAssist™

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Breaking the laws of motion

WeAssist™ is breaking the laws of motion:

Thanks to a sophisticated algorithm, this mobility solution makes patient transport noticeably easier, enabling a single person to effortlessly move a hospital bed.

The challenges facing hospitals continue to grow: Demographic change means that the number of patients is increasing – and at the same time there is a growing shortage of specialists.

In other words, the workload is increasing, and hospitals are facing the huge task of freeing up staff, optimising processes and simultaneously enhancing the quality of work. This is precisely where WeAssist can help.

A system that transforms patient care

This innovative mobility solution for hospital beds is engineered to revolutionise patient transport and ease the workload for you as a healthcare professional. The standout feature is its ability to provide automatic assistance for every driving manoeuvre – effectively as if a second person were there to help push. As a result, WeAssist truly transforms the entire experience. When we say “entire experience”, here is what we mean:

Improvements for nurses

The additional support provided by WeAssist™ makes the work of nurses and porters significantly easier and more ergonomic. This reduces physical strain, promotes back-friendly practices, and allows nurses to stay in dialogue with their patients during the bed transport.

Improvements for patients

Patients require rest, recovery, and quality care from healthcare professionals. WeAssist enhances this by improving patient transport and minimising abrupt movements. With WeAssist, caregivers are not solely focused on manoeuvring hospital beds, which enables them to give patients the attention they need.

The expertise of two specialists

How do you create a groundbreaking innovation? By bringing together two global leaders: LINAK®, one of the world's foremost companies in electric linear actuator solutions, and TENTE®, one of the global market leaders in mobility solutions. WeAssist combines the extensive expertise of both companies, setting entirely new standards in mobility. With LINAK. With TENTE. And most importantly: Together.

Discover more on the following pages, or visit our homepage: **WeAssist.com**



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Transporting patients needs to be quick to keep everything running smoothly. This can be tough physically and mentally. That's where WeAssist comes in to help.

Simply less strain



Without
WeAssist™



With
WeAssist™



Hospital beds are heavy – very heavy – making it challenging to move them from one place to another, especially when you don't have anyone to help you.

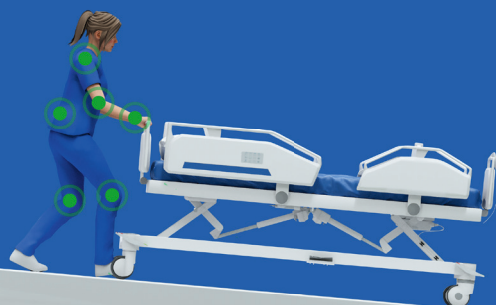
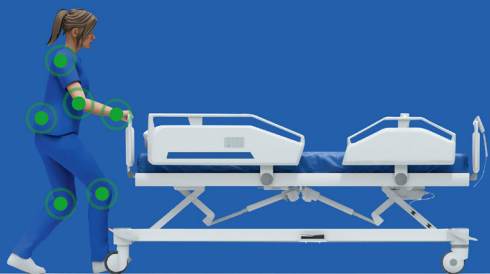
When you start to push the bed, your back is often excessively arched, which can strain the body. During manoeuvring and driving down an incline, you must exert considerable effort to counterbalance or manage its weight. This burden impacts the back, muscles, and joints.

WeAssist™ is an effective solution

In many countries, official guidelines recommend that two nurses work together to move hospital beds. However, due to a shortage of skilled staff and increased workloads, this is often not possible. In such cases, WeAssist™ acts as the second person.

How it works

Stand by the bed and push. The pressure applied is instantly detected by the mobility solution. Advanced software interprets these signals and ensures that the WeAssist system provides the precise support needed for any driving situation – whether up or down inclines, straight ahead, manoeuvring or braking to a stop.



The system provides the necessary forward drive, absorbing the heavy weight of the bed or removing speed when needed.

Improved ergonomics

WeAssist improves ergonomics. The assistance provided helps protect muscles and joints. The mobility solution prevents incorrect postures and makes patient transport back-friendly and effortless. Instead of focusing on manoeuvring and pushing the bed, you can stay present with the patient.

**We love
to assist you!**

Scan the QR code and
contact us today!



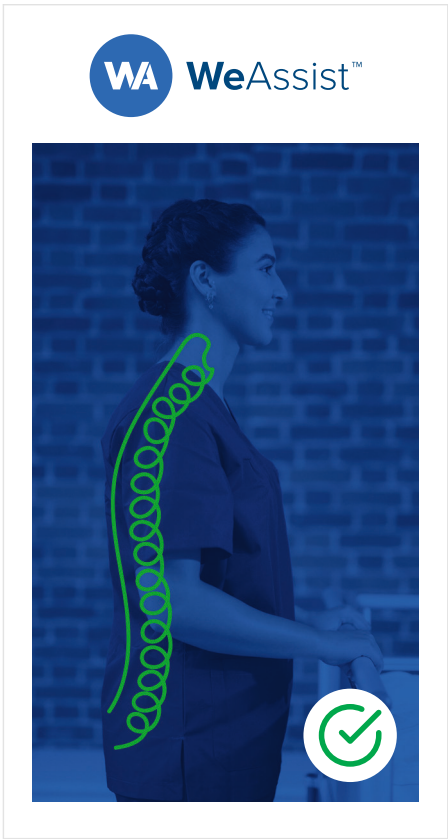
Simply more benefits...

... for nurses and porters

WeAssist™ is an innovative mobility solution for hospital beds. You might think of it as riding an electric bike: You still have to manoeuvre and push the bed, but WeAssist will help you and provide the necessary support. The driving manoeuvres become much easier and more comfortable. The result is a wealth of benefits that significantly improve both patient transport and your working conditions.

Try WeAssist™

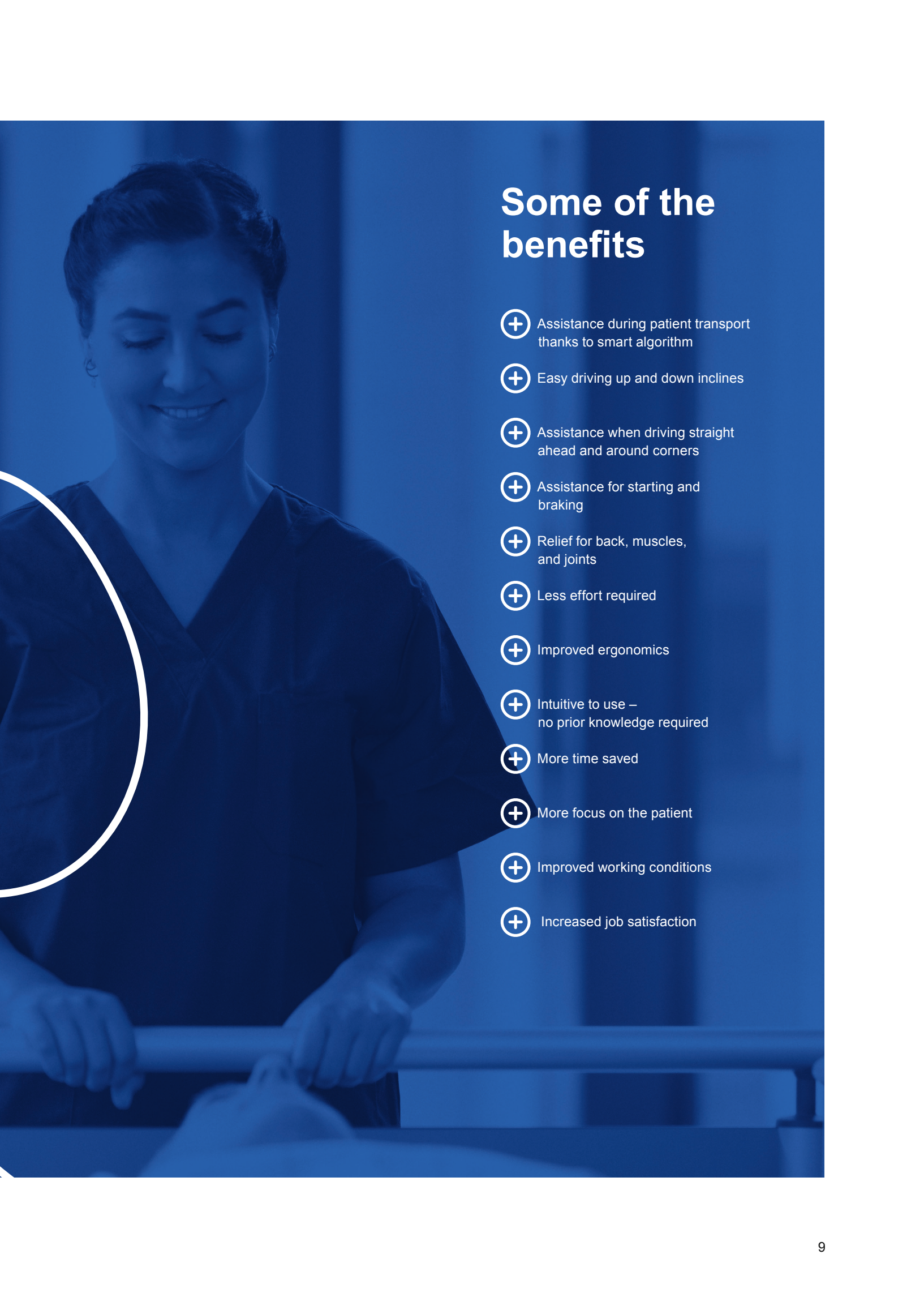
Contact us for a meeting! Our experts will demonstrate the mobility solution in detail.



**We love
to assist you!**

Scan the QR code and
contact us today!





Some of the benefits

- + Assistance during patient transport thanks to smart algorithm
- + Easy driving up and down inclines
- + Assistance when driving straight ahead and around corners
- + Assistance for starting and braking
- + Relief for back, muscles, and joints
- + Less effort required
- + Improved ergonomics
- + Intuitive to use – no prior knowledge required
- + More time saved
- + More focus on the patient
- + Improved working conditions
- + Increased job satisfaction

Scientifically tested by FH Münster

FH Münster university conducted an independent study¹ to scientifically examine WeAssist™. Nursing staff moved a standardized hospital bed – with and without WeAssist – through a realistic course that included ramps, curves, and elevators. During this process, hand forces, trunk inclination, spinal compression forces, and muscle activity as well as subjective evaluations were recorded.

A safe retrofit solution

Hospital beds are generally used for an average of about 15 years². To comprehensively relieve nursing staff, the development of cost-effective retrofit solutions that enable the motorisation of existing hospital beds is of crucial importance. WeAssist can be mounted on existing hospital beds via a plug-and-play approach without special tools.

Excellent user-friendliness

The investigation revealed significant differences in user acceptance between manual pushing and pushing with motorised assistance. Manual pushing received an average rating of 54 ± 22 . This indicates sufficient but improvable user-friendliness. In contrast, the assistance with WeAssist was rated at 86 ± 11 , which corresponds to excellent user-friendliness.

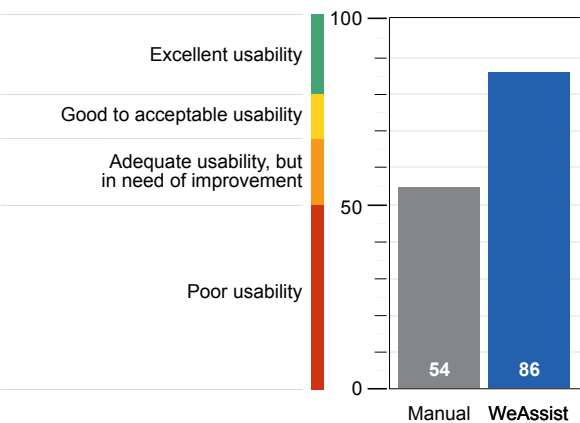
The personal feedback from the nursing staff was also predominantly positive, particularly appreciating the feature of WeAssist to function without additional control elements without altering the usual operation of a bed.

WeAssist significantly reduced the perceived physical effort. With the user-friendliness rated as “excellent,” WeAssist can help reduce physical strain in daily clinical care.

Unique. Retrofit.

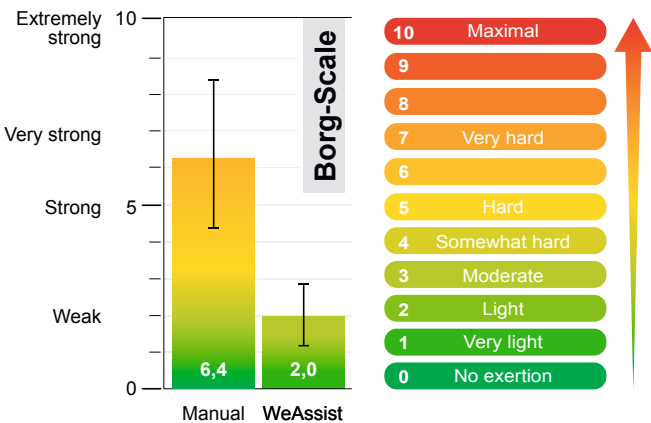
According to the study, WeAssist is currently the only known solution where retrofitting simply involves replacing one of the existing castors on hospital beds from various manufacturers worldwide. The proven high user-friendliness also shows that the system is ready for immediate use without additional training.

WeAssist is rated as excellent in terms of its user-friendliness



The SUS scale (System Usability Scale) was used to evaluate user acceptance, which was determined based on ten questions after the test run.

WeAssist reduces physical effort by 69%



The BORG scale is used to assess the subjective perception of physical exertion.



Figure 1: Spinal compression forces at the level of L5/S1

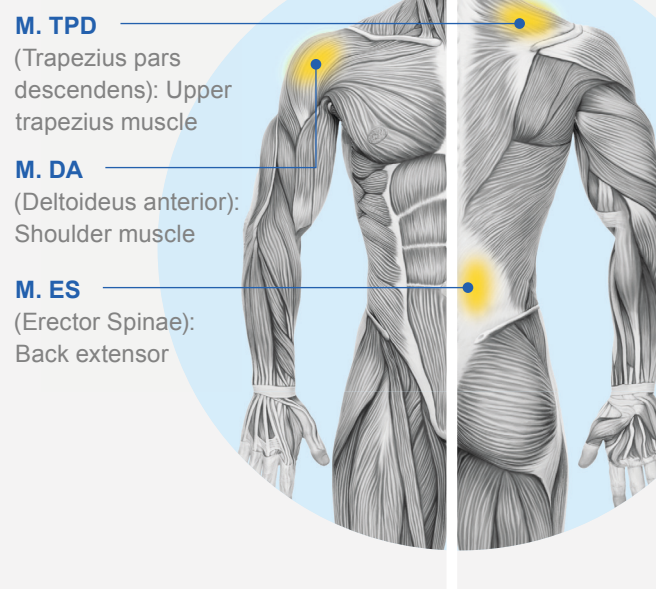


Figure 2: Examined muscle groups

Trunk inclination and influence on the muscles

The trunk inclination in connection with the exerted force has a direct influence on the spinal compression forces. This means: These forces are particularly high during rides on ramps and during acceleration phases.

Trunk inclination reduced by up to 36%

Overall, the study results show that the use of WeAssist has a particularly pronounced effect on trunk posture during rides on ramps and during acceleration phases – that is, when increased exertion is required. One of the greatest reduction in average trunk inclination occurred when pushing the hospital beds up a ramp with a 7% incline. In this case, the angle decreased by 35% from 31° to 20°.

Lumbar spine and spinal compression forces at the L5/S1 level (see Fig. 1)

The study illustrates that the manual movement of hospital beds represents a significant load for the lumbar spine – particularly on ramps.

A contribution to reducing spinal load

Based on the study results, motorised wheels are recommended as standard equipment for the transport of hospital beds. The goal: the reduction of spinal load on nursing staff. For nursing staff over 60 years old, beds should be moved by two people or with the help of bed transport equipment that provides stronger support.

Relief on the muscles

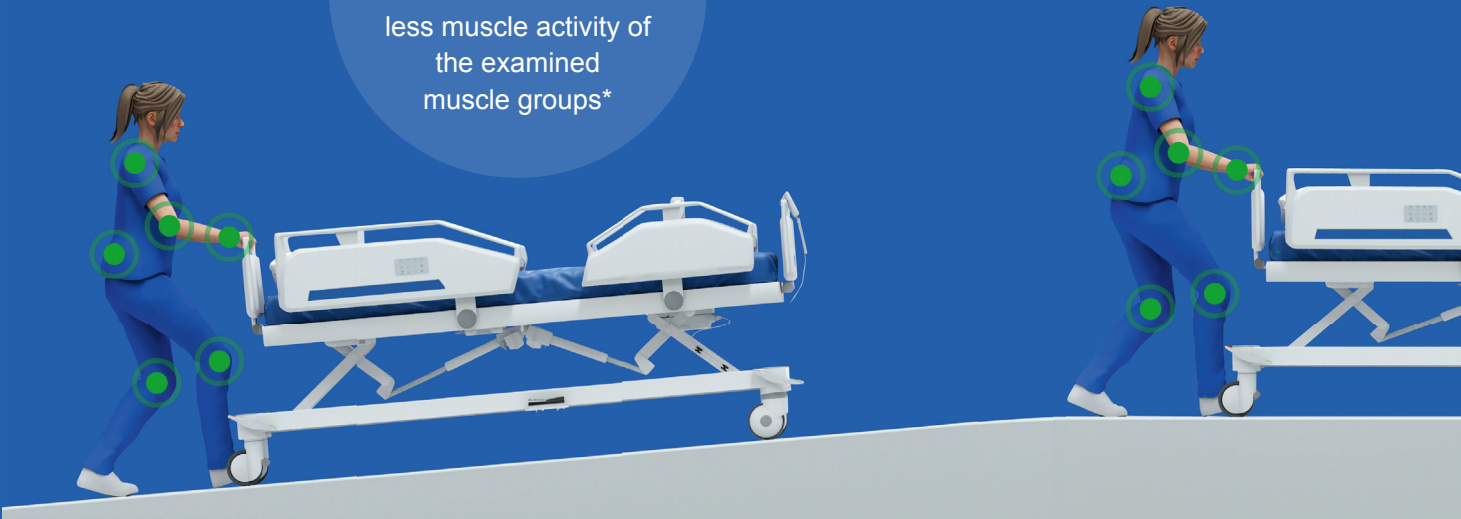
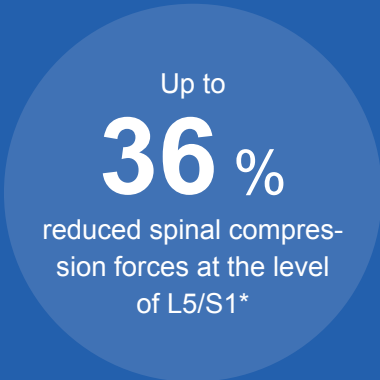
The motorised assistance by WeAssist when pushing the hospital bed led to a general reduction in muscle activity of the examined muscle groups (see Fig. 2).

¹ N. Hinricher, A. Bola, C. Schröder, H. Ludewig, C. Backhaus, Effects of an electric drive wheel on hand forces, muscle activity, spinal load, perceived exertion and usability during hospital bed transport by nursing staff, Applied Ergonomics, Volume 133, 2026,104712, ISSN 0003-6870, <https://www.sciencedirect.com/science/article/pii/S0003687025002480>

² Professional Association for Health Services and Welfare Care, 2023

Simply more ergonomics

Nursing means responsibility, dedication – and above all physical effort. WeAssist™ therefore supports the nursing staff at every step and ensures noticeable relief by reducing muscle exertion, protecting the back, and noticeably easing the pushing of hospital beds. Completely intuitive and simple.



Relief when pushing upwards

Category	3.5% incline	7% incline
Hand force when pushing	45%	40%
Upper body bending	27%	35%
Max. compression forces L5/S1	35%	32%

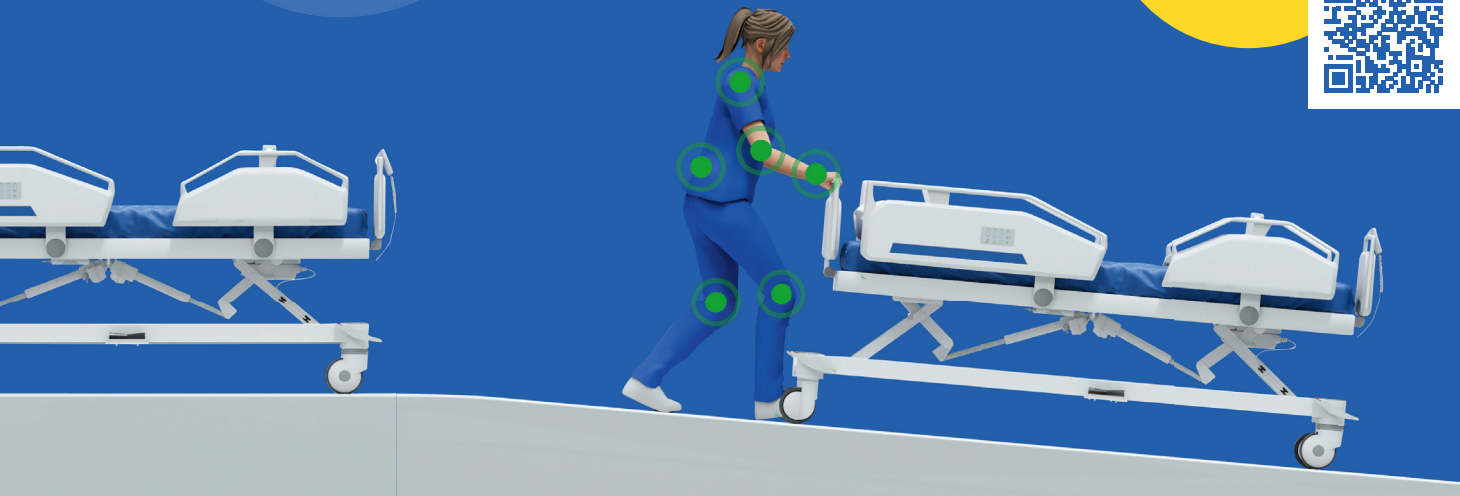
Relief on level paths

Category	
Hand force when pushing	
Forward bending of the upper body	
Max. compression forces L5/S1	

Up to
45%
reduced
hand action forces*

Up to
36%
less trunk inclination
when pushing*

**Get free
advice!**
Scan the QR code and
get your free consultation
today!



Relief
when descending

Scenario	Relief
Initiating push	23%
Unplanned stop	16%
Initiating push	18%
Unplanned stop	36%
Pushing	17%
Right turn	24%

Category	3.5% incline	7% incline
Hand force when pushing	34%	27%
Forward bending of the upper body	No change	13%
Max. compression forces L5/S1	36%	10%

*Hinricher et al., 2025

Simply put, less complex



LINAK® control box

The LINAK control box includes the smart software. It is available in various power levels, providing a wide range of features.



TENTE® Integral

In addition to one TENTE Integral assist, the solution requires three TENTE Integral castors. These castors feature central locking and are recognised for their durability and TÜV Süd certification.

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“It takes no training to drive
a bed with WeAssist. You just push.”



LINAK® battery

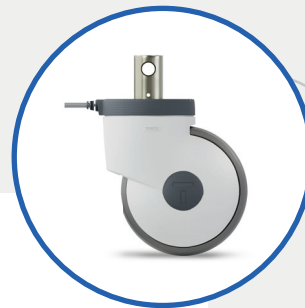
The LINAK Li-Ion battery has a built-in charger. The battery snaps on and off for easy installation and removal. And it is stackable for higher capacity.



reddot winner 2025
medical devices and technology design

The jury says

WeAssist impresses with intelligent functionality that noticeably reduces the physical effort required to move patient beds.



TENTE® Integral assist

One of the four castors is a TENTE® Integral assist with intuitive drive assistance. The diameter is 150 mm, and it features central total and directional lock.

Manoeuvring: Simple

Pushing a bed with WeAssist is completely intuitive. No training. No instructions. No buttons. You simply stand by the bed and push to start. You save not only time and effort, but also frustrations.

Interaction: Perfect

The intuitive operation is made possible by the interaction between the LINAK control box and the TENTE Integral assist castor.

The two key components of the system are perfectly coordinated and run silently in the background. Or rather, under the hospital bed. The WeAssist system does not stand out but blends in perfectly with the look of any bed.

How it works: Clever

The smart software in the LINAK control box detects and interprets what you want to do and forwards the corresponding signals to the Integral assist castor.

The mobility solution receives the signals and immediately provides the necessary assistance for the intended driving manoeuvre.

Support: Happy!

Do you have any questions about the design or how the WeAssist system works? We would love to assist you. Simply contact us to get support from our experts:

[WeAssist.com/en/contact](https://www.weassist.com/en/contact)

Simply taken from real life

We could go on telling about all the great benefits of WeAssist™, but instead we will pass the floor to those who have experienced this groundbreaking system in their daily work: Nurses and porters.

Does WeAssist make a difference in patient transport? How is the driving experience? What does assisted drive feel like? Does the system have any effect on ergonomics? Our everyday heroes provide the answers. Straight to the point – simply taken from real life.

”



“The system gives you the feeling that you’re not driving alone. It effectively replaces the second person.”

Sylke Förster
Surgical Nurse

“It takes only a short time to get used to it, because you are used to something else, but then you realise that you only have to give an extra push and then you get the support.”

Chris Förster
Nurse





**“It was so much easier
and so much more comfortable,
and the wheel immediately
understood what I wanted.
I am so thrilled!”**

Jana Lück
Nurse



**“The braking, I actually liked
the fact that it automatically
recognised within seconds
that I was descending.”**

Deniz Altunordu
Outpatient Nurse

**“You no longer need to
use as much force as
usual, you no longer lean
against it with your entire
weight. You can really
feel the difference.”**

Anushka Hünecke
Nurse



**We love
to assist you!**

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contact us today!



Simply achieving more together

The development of WeAssist™ is not only a milestone, but a strong collaboration between our two companies: LINAK® and TENTE®. Together, we have joined forces to bring WeAssist from concept to implementation.

Good things come in pairs

As part of our collaborative development, both our companies have used valuable synergies and lots of expertise: LINAK® is one of the leading companies in the field of electric linear actuators for medical applications. TENTE® is one of the global market leaders in castors for hospital and care beds.

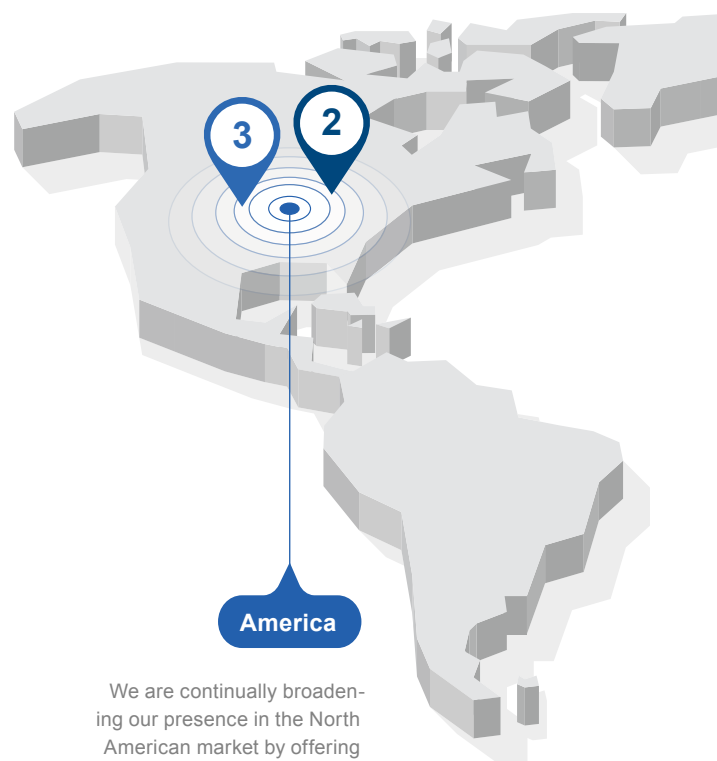
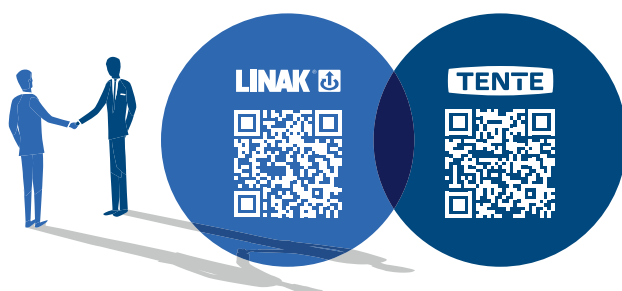
The combined expertise of both companies, along with our many years of experience in the healthcare sector, is seamlessly reflected in the innovative features and functions of the WeAssist™ system.

Maximum reliability

LINAK and TENTE have consistently represented the highest standards of quality, reliability, and unique product excellence. These attributes influence every aspect of our joint development, ensuring a final product that meets the most stringent requirements: yours.

Discover more

Scan the QR code to find out more about the two partners:



We are continually broadening our presence in the North American market by offering smart solutions, expertly tailored to meet country-specific requirements and growth opportunities.

Europe

Our roots are firmly established here. We have consistently experienced growth in this region and are actively expanding our diverse portfolio to meet the varied requirements of our customers without compromise.

Asia-Pacific

In this region, we are well-established and leverage our strengths to effectively serve the dynamic and rapidly evolving market. We focus on pioneering developments and customised solutions, always prioritising collaboration with our customers.

Turnover

560m
Euro
LINAK

270m
Euro
TENTE

Our strong sales successes highlight our leading market position and high level of innovation at LINAK® and TENTE®.

Employees

2,400
LINAK

1,500
TENTE

Each of our developments is only made possible by the tireless commitment of our employees. They represent the combined expertise, passion and innovation of both companies.

Subsidiaries

27
LINAK

28
TENTE

As global companies, LINAK and TENTE have a worldwide presence. They understand country-specific requirements and offer tailored solutions to meet those requirements.

Founded

1907
LINAK

1923
TENTE

LINAK was founded in 1907 and TENTE in 1923. Together, we bring over 100 years of experience and know-how.

