

# Continuous protection

A support surface for easy patient handling and positioning



# Continuous protection

Tortoise® is a specialised turning and positioning systems in that it promotes easy patient handling while also acting as a support surface. The system facilitates pressure redistribution by increasing the contact surface area.

- In the ICU, Tortoise may reduce the cost of support surfaces. In a quality improvement project, one facility used Tortoise to replace speciality beds and reported a 66% reduction in bed rental cost within one year<sup>1</sup>.
- The system could also be used to protect patients swiftly on less forgiving surfaces such as in the emergency department and imaging departments. Tortoise is designed to stay with the patients throughout the continuum of care, providing continuous protection.



Mölnlycke® Tortoise® Turning and Positioning System – throughout the continuum of care:



ER



ICU



Medical units



Imaging



In-patient dialysis



Long-term care



Nursing homes



## 'Significant reduction in tissue compressive deformations'

'Our recent internationally published MRI-based scientific study revealed a significant reduction in tissue compressive deformations when adding Tortoise® to a foam mattress, as the Tortoise further enhances the contact surface of the body through increased envelopment. The combination of preventative interventions such as a quality mattress, plus Mepilex® Border dressing and Tortoise provides the greatest reduction of tissue compressive deformations and should therefore lead to improved pressure ulcer/injury prevention outcomes.'

**Amit Gefen**, PhD, MSc, BSc  
Professor in Biomedical Engineering at Tel Aviv University, Israel.

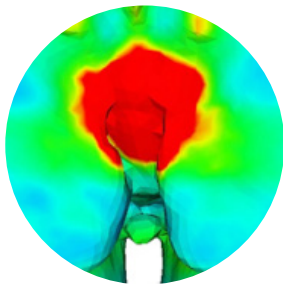
### Reduce tissue deformation

Deep pressure injuries (PIs) and deep tissue injury are thought to be mainly deformation of deeper tissues resulting from pressure and shear. Utilising Finite Element modeling, we can examine how the addition of Tortoise to different surfaces, can reduce the risk of tissue damage<sup>3</sup>.

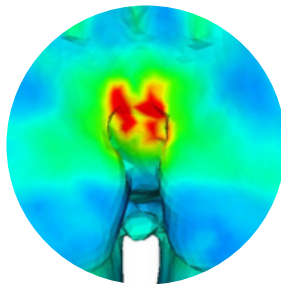
A scan of the muscle layer shows how placing Tortoise over different surfaces reduces stresses in the soft tissue under the sacrum. You can compare this with the small reduction in stresses achieved by instead adding a turning and positioning system that does not offer envelopment<sup>3</sup>.

#### Hard surface

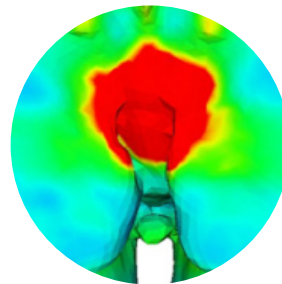
Hard surfaces include stretchers in the ED and the tables of MRI machines.



Hard surface only  
(Control)



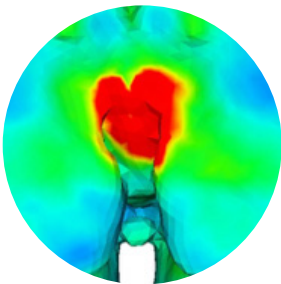
Hard surface and Tortoise®  
(90 - 100% reduction)



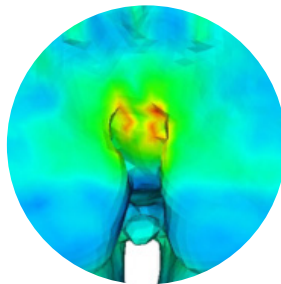
Hard surface and AirTAP®\*  
(0% - 10% reduction)

#### Soft surface

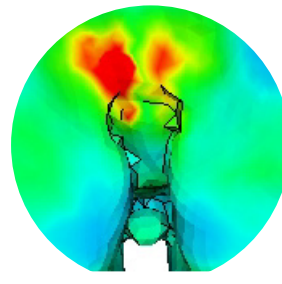
A mattress in the ICU or other departments could be an example of a soft surface.



Soft surface only  
(Control)



Soft surface and Tortoise®  
(90 - 100% reduction)



Soft surface and AirTAP®\*  
(0% - 10% reduction)

\*In one study with healthy volunteers. \*\*Prevalon™ AirTAP® is a trademark and brand of Sage Products, LLC.



# Setting a new standard in ease of use

**Weight limit, max 400 kg**

**Approved for imaging**

The Tortoise® mat is approved for MRI, CT and X-ray<sup>2</sup>. The positioner can be left in place for MRI and CT.

**Compatible with Low Air Loss mattresses<sup>4,5</sup>**

**Mölnlycke® Z-Flo® Fluidized Positioner** Helps maintain the desired turn while providing continuous support.



**Colour-coded handles**

Make it easy for caregivers to communicate patient handling cues during repositioning

**White handles**

Handles placed closer to the body facilitate boosting of the patient.





**Additional feature**

**Sacral image**

Helps you best position the patient to ensure envelopment. It also helps you align the patient and the mat with where the bed folds.

**Additional feature**

**Easy infographic instructions** printed directly on the mat.

**Grey and black handles**  
For turning patients or making lateral transfers.

**Additional feature**  
**QR-code tutorials**  
Scan the QR code and go directly to the product page with instructional videos.

**Tuck the tail**

Helps create envelopment through positive air displacement. Also serves as a brake to maintain the patient's position. Marked in red as a reminder that it should be tucked in, i.e. not visible.



Mölnlycke® Z-Flo® Fluidized Positioner can be moulded to conform to the patients' body and will keep them in the desired position over time. It can also be used for mini turns for (hemodynamic) unstable patients.

## 'The Tortoise® is the trifecta product'

**Chenel Travellini, MSN, RN, CWON** Wound Ostomy Continence Nurse, Mount Sinai, New York, USA

'This simple yet innovative product helped us to reduce dependency on expensive support surface rentals by providing effective pressure redistribution, while supporting and protecting our nursing staff during the intervention of turning and positioning, which decreased our overall hospital acquired pressure injury rates. We enjoyed improvements in patient safety, staff safety, contributing greatly to the hospital's financial bottom line.'



Scan the QR code to go directly to our Tortoise resources. Here you will find further information and instructional videos showing just how easy Tortoise is to use.

# Easy patient handling and positioning



**Patient turning.** Tortoise® features long handles that reduce the need for reaching and allow you to keep your back straight and elbows close to the body.



**Boosting.** The low-friction mat with reinforced handles aids in reducing the force needed to move the patient up in bed.



**Lateral transfer.** Use the mat to move patients from one surface to another and lessen the need for patient lifting.



**Patient Positioning.** Reduces frequency of patient repositioning since patient will remain in place.

## Did you know?

Overexertion and straining from frequent turning and repositioning is a leading cause of back injury among caregivers. As many as 12% of nurses leave the profession every year due to back pain and 52% experience chronic back pain<sup>6</sup>.



# Top 3 reasons

## Why Mölnlycke® Tortoise® Turning and Positioning System

### #1

#### Pressure Injury Prevention\*

Tortoise is a support surface that facilitates pressure redistribution through envelopment. It also aids in turning patients and the Tortoise mat together with the Z-Flo® Fluidized Positioner will protect the patient by keeping them in the desired position over time<sup>7</sup>.

Tortoise is designed to stay with the patients throughout the continuum of care, providing sustained protection while also relieving the physical burden on caregivers.

### #2

#### Easy patient handling

Mölnlycke Tortoise Turning and Positioning System promotes easier patient handling and may reduce risk of caregiver injuries. The system could also reduce workload as patients remain in the desired position over time.

The possibility to use it for lateral transfers may reduce the need for lifting during patient transfers.

### #3

#### Reduced cost for speciality surfaces – and more

By enhancing the performance of existing support surfaces you could decrease expenditure for overlays and specialty beds. In a quality improvement project, one facility reported 66% reduction in bed rental cost within one year<sup>1</sup>.

Tortoise may also reduce costs of pressure injuries treatment\* and for claims related to patient handling. In quality improvement project, one facility reported 55% reduction in caregiver injuries within one year<sup>1</sup>.

\*When used for patient turning and repositioning as part of overall pressure injury prevention program.

# Proving it every day

At Mölnlycke®, we deliver innovative solutions for managing wounds, improving surgical safety and efficiency and preventing pressure ulcers. Solutions that help achieve better outcomes and are backed by clinical and health-economic evidence.

In everything we do, we are guided by a single purpose: to help healthcare professionals perform at their best. And we're committed to proving it every day.

## Ordering Information

- 1400800 Tortoise® Turning & Positioning System  
1 positioning PAD (96.5 x 147cm), 1 medium Z Flo® Fluidized Positioner (40x76cm)
- 1400801 Tortoise® Turning & Positioning System Bariatric  
1 positioning PAD (124.5" x 147cm), 1 large Z Flo® Fluidized Positioner (64x91cm)

**References:** 1. C. Trevellini, Connecting the dots: Pressure Ulcer Prevention and Safe Patient Handling. Poster presentation at National Pressure Ulcer Advisory Panel Biennial Conference, Orland, Florida, United States of America, 2015. 2. Mölnlycke Health Care. Instruction for Use Tortoise Turning and Positioning System standard. Data on file. 3. Mölnlycke Health Care. FE modelling. Report 20180809-002. 2018. Data on file. 4. Mölnlycke Health Care. Tortoise interface temperatures. 2018. Data on file. 5. Mölnlycke Health Care. Tortoise humidity. 2018. Data on file. 6. ANA supports safe patient handling measures in Congress, American Nurse Today, Vol. 4, No. 7, 2009. 7. M. R. Brennan, D. Laconti, R. Gilchrist, Using Conformational Positioning to Reduce Hospital-Acquired Pressure Ulcers, J Nurs Care Qual, 2013.

Find out more at [www.molnlycke.com.au](http://www.molnlycke.com.au)

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