Hospidex

Pressure Ulcer Care Pack

Prevention and treatment of pressure ulcers

repose toto dermisplus Hospidex Appli

Pressure Ulcer Care Pack

The **prevention and treatment of pressure ulcers** are complex operations and require an integrated approach that always places the patient at its core.

A **holistic approach** requires continuous interaction between the various actors surrounding the patient. They are the people in charge of daily care, the decision-makers and the manufacturers and suppliers of the care materials. All parties in this holistic '**circle of care**' have responsibilities towards the patient, towards each other, but also towards themselves. Hospidex always strives to offer complete solutions with a care package of proven products in line with the national and international guidelines for pressure ulcer prevention. However, products only offer **solutions** if they are deployed with the necessary expertise and with a correct view of the patient's pressure ulcer problem. As part of this 'circle of care', Hospidex wishes to participate fully in the consultations between the various stakeholders and to play an active role in the transfer of its knowledge and experience to all parties for the patient's benefit.

The Hospidex care package as part of the 'circle of care', a holistic approach to pressure ulcers

Hospidex

Hospidex offers solutions and knowledge to treat and prevent pressure ulcers with proven products and a dedicated team of specialists. We have more than 30 years of experience in the prevention and treatment of pressure ulcers. We pass on our knowledge in training courses. We actively address and analyse issues and we offer solutions to problems our customers are facing every day.

Healthcare providers

The healthcare provider plays an essential role in the prevention and treatment of pressure ulcers. Daily monitoring, evaluation and adjustment are vital in order to offer each patient individual care. Healthcare providers' implementation of the applicable guidelines for the prevention and treatment of pressure ulcers makes them the first people that can recognise pressure ulcers and prevent them from getting worse.

Decision-makers

The management wants to avoid pressure ulcers as much as possible and is looking for solutions to make quality care cost-efficient. With targeted and correct investments, they strive towards an optimal return for both the patient and the healthcare institution.

New insights into the formation of pressure ulcers

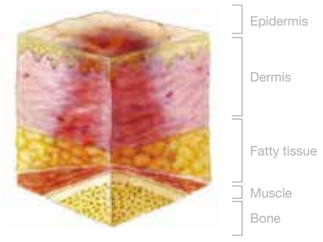
1. Looking at pressure and shear, but also at tissue deformation

Pressure and shear undeniably remain the main causes of pressure ulcers. These stresses cause tissue deformation, particularly in vulnerable areas of the body, such as the sacrum, sit bones, trochanters and heels. The collapse of blood vessels and the lymphatic system impair the supply of oxygenated blood and the excretion of waste products.

In the past decade, scientific research has clearly demonstrated that pressure ulcers are caused not only by external pressure and shear, which affect the interior of the tissues, but also by local, irreversible cell damage in the deeper tissue layers.

These deep-tissue injuries (DTI) usually appear in the areas of the body where tissue becomes compressed and deformed between bony prominences of the skeleton and the surface on which the person is sitting or lying.

Typically, DTIs only become apparent at a late stage and may lead to full thickness tissue loss, which is a grade 4 pressure ulcer. It is difficult to assess the risk of a DTI, as this requires health professionals to have plenty of experience in estimating physical changes to the patient's body.

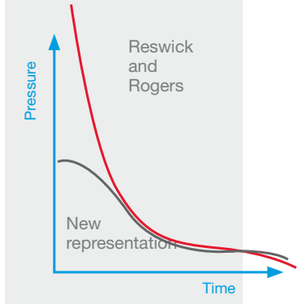


2. Pressure based on time: the aim is continuously low pressure in combination with alternation

Time is a crucial factor in the formation of pressure ulcers. Tissue damage may occur as a result of both high pressure over a short period of time and low pressure over a prolonged period of time. New findings have shown that even lower pressure over a short period of time may cause tissue damage.

This challenges the classic Reswick and Rogers pressure-time curve, which needs to be brought in line with the new findings concerning deep tissue damage[1,2].

Continuously ensuring the lowest possible pressure and changing the patient's posture is of the utmost importance. However, as there is no real consensus yet on the frequency of alternating postures, the approach must be tailored to the patient.



3. Ensuring an optimal microclimate

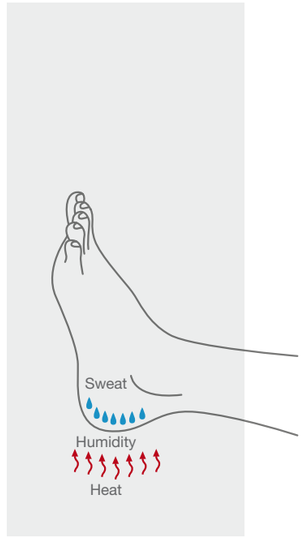
The microclimate is an important factor in the formation of pressure ulcers. However, the moisture vapour permeability of the material used and skin warming are usually underestimated.

Recent research[3] has shown that metabolic demand increases by 6% to 13% when the skin temperature rises by 1°C. It may reasonably be assumed that this will increase the risk of injury, particularly when pressure on tissue compromises the supply of nutrients and removal of waste products.

Recent research by Dr. A. Gefen[4] shows that the moisture vapour permeability of the surface may in fact be of even greater significance to skin integrity than skin temperature.

4. Free radicals adversely affect the surrounding tissue

The fact that the formation of pressure ulcers may also be determined by the interaction between ischaemia and tissue reperfusion (I/R injuries) has repeatedly been demonstrated in scientific studies. By suddenly restoring blood flow to tissue which has been under pressure, free radicals may adversely affect the surrounding tissue, which may result in pressure ulcers.



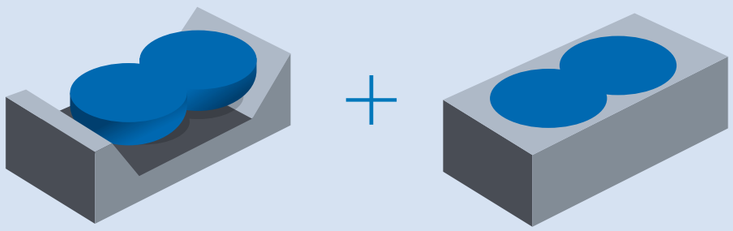
Indeed, the aetiology of pressure ulcers on the one hand, and on the other, the interaction between pressure and shear, and the impact of the duration on pressure placed on tissue, of free radicals at cellular level and of the micro-climate on skin, remain to be fully investigated and understood. Further research will be needed in order to map pressure ulcer aetiology and further refine prevention guidelines.

It is early risk assessment, as well as speedy and appropriate preventive action, that remain paramount for both patient and caregiver.

1. Gefen A. Reswick and Rogers pressure-time curve for pressure ulcer risk. Part 1; Nurs Stand, 2009 Jul 15-21; 23(45): 64, 66, 68
2. Gefen A. Reswick and Rogers pressure-time curve for pressure ulcer risk. Part 2; Nurs Stand, 2009 Jul 22-28; 23(46):40-4
3. Lachenbruch C. Skin cooling surfaces: estimating the importance of limiting skin temperature. Ostomy Wound Manage. 2005 Feb;(2):70-9
4. Gefen A. How do microclimate factors affect the risk for superficial pressure ulcers: A mathematical modeling study. Journal of Tissue Viability 2011: 20: 81-88
5. D. Beeckman et al., Een nationale richtlijn voor decubituspreventie, KCE report 193A, 2012; id., Een nationale richtlijn voor de behandeling van decubitus, KCE report 203As, 2013 (available at www.kce.fgov.be).

Air cells & stretchable PU film
stretchable to 6 times its original size
= preventing pressure ulcers

Repose, the optimal prevention and treatment of pressure ulcers



Immersion
Immersion refers to how deep part of the body is immersed in the pressure redistributing devices.

Envelopment
Envelopment refers to the ability of the pressure redistributing equipment to fit around part of the body.

Simplicity

Repose is easy to use and has a long service life.

Repose consists of interconnected polyurethane film membranes that are filled with air. The polyurethane film has a thickness of 50 µm and is extremely elastic: it can be **stretched up to six times** without ripping or losing elasticity. The combination of air cells and a polyurethane film ensures optimum pressure redistribution through **immersion** and **envelopment**.

Repose is the perfect product for increasing the contact area between the body and its supporting surface as much as possible. The material is **breathable** and **temperature-neutral**. This creates an optimal microclimate.
The unique Repose pump ensures the correct amount of pressure is used to inflate each device. The patented 'Smart Valve' technology guarantees an internal pressure of 12mmHg inside the Repose. This is the optimum value for pressure redistribution and clinical efficacy through immersion and envelopment. The pump also doubles up as a container for Repose.

Repose can be deployed very quickly when a patient is at risk of developing a pressure ulcer or when their condition so requires.

Repose pump
Smart Valve technology

The combination of **air** and an extremely elastic polyurethane (PU) film ensures maximum pressure redistribution across a maximum surface area and minimises shear.
Air has no shape memory nor does it place reaction forces on the body when placed under pressure or when the patient moves.
The **air** in the interconnected cells of Repose immediately reacts to any changes in the person's position, thus immediately adjusting itself to the new position.
The combination of **air** cells and Repose PU film ensures a high degree of moisture vapour permeability without raising skin temperature.
Air does not inhibit the patient's spontaneous movement.

The Repose range offers a simple and unique solution for efficiently redistributing or eliminating pressure (floating heels) and contributes to the prevention and treatment of pressure ulcers.

Repose foot protector

Repose Flex

Floating heels

Adequate prevention is essential in fighting pressure ulcer injuries.

Optimising preventive measures ensures a sharp drop in pressure ulcer incidence and prevalence, while being a less expensive option than pressure ulcer treatment. Pressure ulcers are considered an important indicator of the quality of care. That also holds true for heel pressure ulcers. In most cases, heel pressure ulcers may be prevented by letting the heels float.

Essentially, pressure ulcer prevention is based on two principles. The **starting point** is to minimise pressure intensity and shear. This means aiming to create as large a body contact area as possible, across which pressure can be distributed and redistributed. **Secondly**, it's important to reduce the duration of pressure. To prevent heel pressure ulcers, these principles are best achieved with the floating heels technique, for the simple reason that the heels easily lend themselves to being placed in a floating position. Not only does this technique completely eliminate pressure and shear, it also removes the duration of pressure from the equation. Despite research having shown that the floating heels technique is an effective method in preventing and curing heel pressure ulcers in at-risk patients[1],

the figures for heel pressure ulcer prevalence in Belgium tell a different story: one in three pressure ulcer injuries affects the heels! This is why the current pressure ulcer guidelines are so clear. Both the prevention guideline and the treatment guideline contain a separate recommendation for heels:

"The use of devices that allow heels to float completely in combination with an off-loading surface is recommended for individuals at risk of developing pressure ulcers."

"For bed-bound patients or patients sitting in a chair with their feet up, devices that completely expose the heels must be chosen. This can be done by distributing the leg's weight across the calf without causing any additional pressure on the Achilles tendon. The knee must be supported and slightly bent at a 5 to 10-degree angle."

The lesson learned from experience and good practice is the same: **heels should be allowed to float**. This remains the best prevention and treatment option for heel pressure ulcers!

Repose offers three devices that have specifically been designed to promote the off-loading of pressure from the heels: the Repose Wedge, Flex and foot protectors.

1. Recognizing the feet as being at risk from pressure damage. Bale S et al. British Journal of Nursing, 2001, Vol 10, N° 20

The international guidelines for pressure ulcer prevention

In 2014, the new international guideline on pressure ulcers was issued by the European Pressure Ulcer Advisory Panel (EPUAP), the National Pressure Ulcer Advisory Panel (NPUAP) and the Pan Pacific Pressure Injury Alliance (PPPIA). This international cooperation aims to develop evidence-based recommendations for the prevention and treatment of pressure ulcers.[1]
The level of evidence is determined based on the quality of the studies and guidelines based on randomised controlled trials or RCTs that show clear results and a low risk of error are ranked the highest and are most highly recommended. The list of guidelines is very broad and contains recommendations on several topics regarding the prevention and treatment of pressure ulcers. It is up to the users themselves to determine which recommendations apply to them or their specific care situation and to apply them in practice.

Some important recommendations that apply directly to the products in this brochure are provided below:

- Every patient deserves a holistic and individualised therapy programme.
- The clinical observation of the patient and their skin and a structured risk assessment are key in estimating the risk of pressure ulcers.
  - When patients at risk of pressure ulcers are newly admitted, the risk assessment must be made within 8 hours of admission.
- Any patient with existing pressure ulcers or at risk of pressure ulcers should be given a change of position if possible.
  - In a lateral position in a 30-degree angle.
  - The frequency is determined individually based on the mattress used and the patient's condition.
  - Unstable patients should be turned **slowly** or **in several steps** to allow sufficient time for their vital functions to stabilise.
  - In the prone position, the pressure points on the body should be relieved with pressure redistributing devices.
- The heels of each patient with existing pressure ulcers or at risk of pressure ulcers should be 'floated' if possible.
  - The leg's weight must be distributed across the calf without putting pressure on the Achilles tendon.
  - The knee should be slightly bent at a 5 to 10-degree angle.
  - The heels should also be 'floated' during surgery.
- Any patient with existing pressure ulcers or at risk of pressure ulcers should be given a pressure redistribution mattress.
  - This also applies to patients during or after surgery.
  - The pressure redistribution mattress must be suitable for the weight of paediatric, neonatal and premature patients.
  - In palliative patients, comfort is of the utmost importance.
- A pressure redistribution seat cushion must be used during sitting.
- Inspect the skin at least twice a day in places where patients come into contact with medical devices (for example the ears in case of a nasal oxygen cannula and the corners of the mouth in case of an endotracheal tube) and consider using a prophylactic protective dressing.
- Consider using a prophylactic dressing on bony, protruding parts of the body.

1. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Emily Haesler (Ed.). Cambridge Media: Osborne Park, Western Australia; 2014.

Repose Mattress Overlay

Repose twice as efficient as alternating pressure mattresses

It has been clinically proven that Repose is effective and cost-effective.

The Repose system to prevent bedsores has been used for more than 25 years and has successfully helped more than 3 million patients. In recent years, many scientific studies have been carried out in several European countries that have confirmed Repose's effectiveness in the prevention of pressure ulcers.

- In 2013, the scientific journal WOUNDS[1] published a study by Van Leen et al. that compares the Repose Mattress Overlay on a viscoelastic foam mattress with the same mattress without Repose in a Dutch residential care home. This cross-over RCT showed an incidence of 22.2% on the viscoelastic foam mattress and only **5.2%** on the Repose Mattress Overlay.

- In 2016, the Journal of Wound[2], Ostomy and Continence Nursing published a multi-centre cohort study by Serraes and Beeckman in 6 Belgian retirement homes. This study looked at pressure ulcer (grades II-IV) incidence using Repose in a large group of 176 residents over a period of 30 days. At **5.1%**, the incidence was remarkably low given the patients' high-risk profile.

An overview of the key studies that have shown the clinical efficacy of Repose was published in a compendium. Ron Legerstee, RN, Msc, has also written his recommendations based on the existing literature about Repose in a 'Repose White Paper'. **Download the compendium and white paper at www.hospidex.eu/repose**

A prospective, randomised, controlled, multi-centre clinical study to compare the effectiveness and cost price of static air-filled mattresses and alternating pressure mattresses to prevent bedsores in high-risk patients at care institutions.

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Ann Van Hecke PhD, MSc, RN
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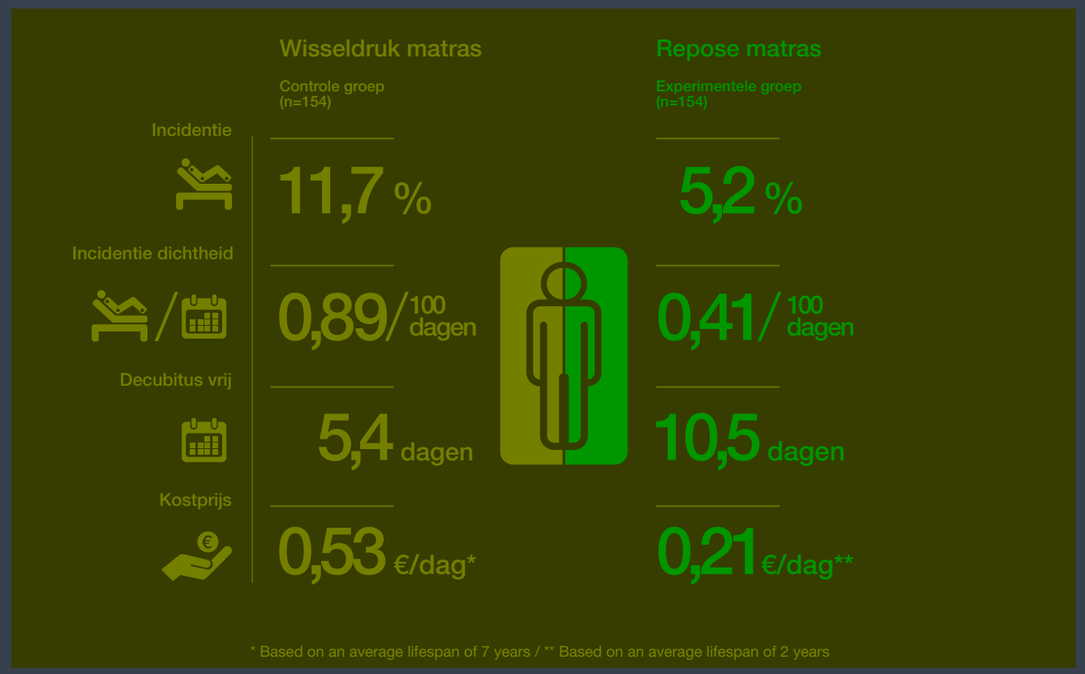
It is therefore remarkable that several studies found an incidence rate of around 5% in high-risk patients in a residential care environment. There is little evidence in scientific literature about the comparison between reactive air-filled systems such as Repose and high-tech motorised systems such as alternating pressure mattresses. The lack of a comparative study and the conviction that Repose is at least equal to alternating pressure systems to prevent pressure ulcers prompted us to collaborate with the manufacturer Frontier Medical Group and the research team of the Skin Integrity Research Group at Ghent University led by Professor D. Beeckman to have a study carried out that will be published in the renowned International Journal of Nursing Studies in 2019.

1. Martin van Leen et al. Pressure Relief with Visco-Elastic Foam or With Combined Static Air Overlay? A Prospective, Crossover Randomized Clinical Trial in a Dutch Nursing Home, Wounds 2013
2. Serraes B., Beeckman D. (2016). Static Air Support Surfaces to Prevent Pressure Ulcers: a Multicenter Cohort Study in Belgian Nursing Homes. Journal of Wound, Ostomy and Continence Nursing.

START
STatic Air support surface Trial

Method

- 308 patients in 26 Belgian care homes
- High risk of developing pressure ulcers
  (Braden ≤ 12 and/or Braden mobility subcategory ≤2)
- Over 65
- Bed and chair-bound



Half the incidence rate

The incidence rate of the Repose group is half the incidence rate of the control group and proves the qualities of the pressure-redistributing Repose mattresses in the prevention of pressure ulcers. The 5.2% incidence also confirms the results of previous RCTs.[1,2,3]

Free of pressure ulcers for twice as long

Patients on a Repose mattress remain free of pressure ulcers for twice as long than patients on an alternating pressure mattress. The principle of continuously low pressure through pressure redistribution is a better way to prevent pressure ulcers than cyclic pressure relief.

At half the cost

Repose mattresses can be used at less than half the price and are financially attractive to any healthcare institution. They create financial scope for setting up a comprehensive pressure ulcer prevention policy.

Repose
Mattress Overlay

Proven efficiency for comprehensive commitment to the prevention and treatment of pressure ulcers.

The Repose **Mattress Overlay** consists of 16 interconnected air chambers. This reactive device offers every at-risk patient optimal pressure redistribution. Experience has also shown that patients find the Repose system extremely comfortable. This has certainly been the case in lightweight, pain-sensitive patients...
The **double** Repose **Mattress Overlay** allows a couple to use a single large Repose mattress designed for use on a double bed. The exceptional comfort offers the patient's partner a good night's sleep and pressure redistribution is ensured for the patient.
The Repose **Mattress Overlay for radiology** is very suitable for radiology, surgery or other examination tables thanks to its reduced width. The polyurethane's radiolucent properties allow the patient to continue to lie down on the mattress for medical imaging. The reduced width of the mattress also makes it very suitable for transporting patients on a stretcher.

Dimensions (L x W x H):

190 x 77 x 5 cm – 1 person

178 x 135 x 5 cm – 2 persons

178 x 55 x 5 cm – radiology

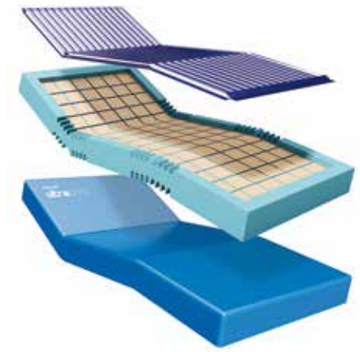
Load capacity up to 139 kg or 222 kg*

*On High Specification foam

Repose
Ultracore

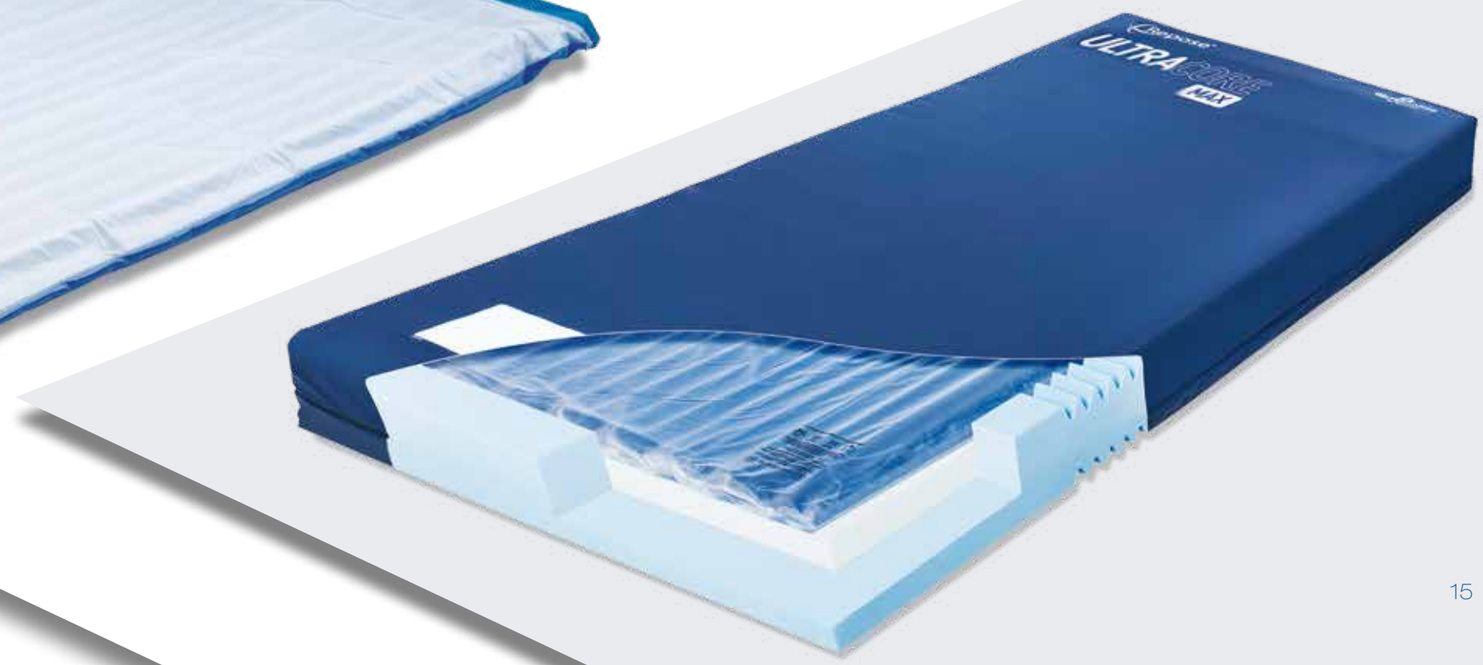
The 2-in-1 hybrid mattress for longer admissions

The Repose **Ultracore mattress** combines the best of both worlds, offering a product tailored to healthcare situations requiring an integrated solution. The combination of a foam mattress and an integrated Repose Mattress Overlay contained in a stretchable cover ensures excellent pressure distribution and maximum comfort. The integrated Repose air-filled mattress is fitted with an 'umbilical valve' for inflation and periodical internal pressure measurement without having to fully open the outer cover. The watertight but vapour-permeable stretchable Xtreme cover has a lapped zip on three sides.
The Repose Ultracore is the perfect hybrid mattress in any situation that requires the prevention and treatment of pressure ulcers. The Ultracore is ideally suited for low, medium and high-care units, but is also a permanent fixture in a multitude of care situations thanks to its versatility.



Dimensions (L x W x H):

198 x 88 x 15 cm



Repose Cushion

The best pressure redistribution and shear neutralisation when sitting up

Since pressure ulcer prevention is an uninterrupted effort, the Repose **Cushion** is an indispensable device when an at-risk patient lying on pressure-redistributing material is sitting up. The two outer air cells are wide and protect the trochanters. They also contribute to the stability and sitting comfort. The cover's stretchable and skin-friendly PU film greatly neutralises horizontal shear, which may affect the skin and underlying tissue when a patient sitting up slides down. The combination of air cells and a PU film that can stretch up to six times its original size provides ideal off-loading by allowing the entire buttocks area to sink into and be enveloped by the device. This produces minimum pressure and maximum comfort when sitting up. Alternatively, the stretchable inner cover made from breathable polyester-coated polyurethane and fitted with a zip can be used as extra protection for the Repose Cushion. This provides added safety to incontinent or confused patients.

Dimensions (L x W x H):

45 x 45 x 7 cm

40 x 40 x 7 cm

Repose Care-Sit

For sitting safely and comfortably in a wheelchair or chair

Repose **Care-Sit** is specifically designed as a seating system for static chairs and wheelchairs. The pressure-distributing seat and back sections work together to protect not only the buttocks of at-risk patients, but also their backs against pressure ulcers. They also provide increased comfort for patients spending prolonged periods in a static chair or wheelchair.

The two thick outer air cells of the buttocks section also protect the trochanters and provide additional stability. The back section is flat and extremely comfortable. Repose Care-Sit consists of two separate sections, each fitted with its own valve.

The blue multi-stretch cover made from breathable PU is waterproof and can easily be secured to a static chair or wheelchair using a number of adjustable fastener straps. Repose Care-Sit is available in two widths – 40 cm and 45 cm – and can therefore fit into most static chairs and wheelchairs.

Dimensions (L x W x H):

95 x 45 x 7 cm

95 x 40 x 7 cm

Repose
Contur Acute

For sitting safely and comfortably in a recliner

In at-risk patients who spend prolonged periods in a static chair or wheelchair, not all vulnerable parts of the body are equally well protected against pressure ulcers. Not only the buttocks, but also the back of the head, shoulders, back and calves deserve effective pressure redistribution. This realisation has led to the development of the Repose **Contur Acute**. This three-part Repose mattress in a breathable, waterproof PU cover conforms to the contours of a recliner in any position. The Repose Contur brings together all the unique features of Repose: air packed into a stretchable PU film with optimal pressure thanks to the Repose pump's 'Smart Valve' technology. The Repose Contur Acute reduces the pressure on a recliner's back, seat and leg surfaces by more than a third. Users also appreciate the comfort of the Repose Contur Acute. The system is secured to the recliner with straps.

Dimensions (L x W x H):

171.5 x 49 x 5 cm

Repose
Companion

Pressure redistribution and transfer everywhere in the hospital

The Repose **Companion** is a transfer system in which a Repose Mattress Overlay is placed. This device guarantees a high level of protection against pressure ulcers, increases comfort and makes it possible for the patient to be moved laterally in an ergonomic and safe way. The integrated slide sheet at the bottom of the Repose Companion protects the patient against shear and friction which result from lateral repositioning.

The Repose Companion is mainly used on stretchers and, depending on the type of stretcher, come in two widths. It moves with the patient during any repositioning: en route to hospital, when being moved between two examinations, when being transferred from a stretcher to an examination table and so on. You can watch a video demonstration on the Repose Companion at www.hospidex.eu

Dimensions (L x W x H):

192 x 56 x 5 cm

197 x 88 x 5 cm

Repose
Flex

Floating heels with support of the knees bent at a 5 to 10-degree angle.

The Repose **Flex** has been designed to allow the heels to float, but also offers support to the knee, which are bent slightly at a 5 to 10-degree angle. This means that the cushion complies with the EPUAP/NPUAP/PPPIA. Bending the knee slightly reduces the risk of compression of the popliteal vein in the knee pit and does not impede the backflow of blood from the lower leg. The different cell heights of the Repose Flex follow the calf's anatomical shape. This better distributes the pressure on the calf muscle and the blood vessels and reduces the risk of developing deep vein thrombosis (DVT).
The Repose Flex can be used for the prevention and treatment of existing heel pressure ulcers. Keeping the heels entirely free removes all pressure from the heels and guarantees optimal blood flow in the wound for faster healing. The Repose Flex is positioned at the foot end of the bed and can be attached to the mattress with the polyurethane fastener strap. The product comes in three lengths that allow caregivers to choose the appropriate device for each patient.

Determine the right size:

Leg length		
knee (A) – heel (B)	**Sizes**	**Flex dimensions** (L x W x H)
41 – 46 cm	Extra small	42 x 70 x 9 cm
45 – 50 cm	Small	46 x 70 x 9 cm
49 – 55 cm	Standard	50 x 70 x 9 cm

Repose
Foot Protector

The all-round solution for floating heels

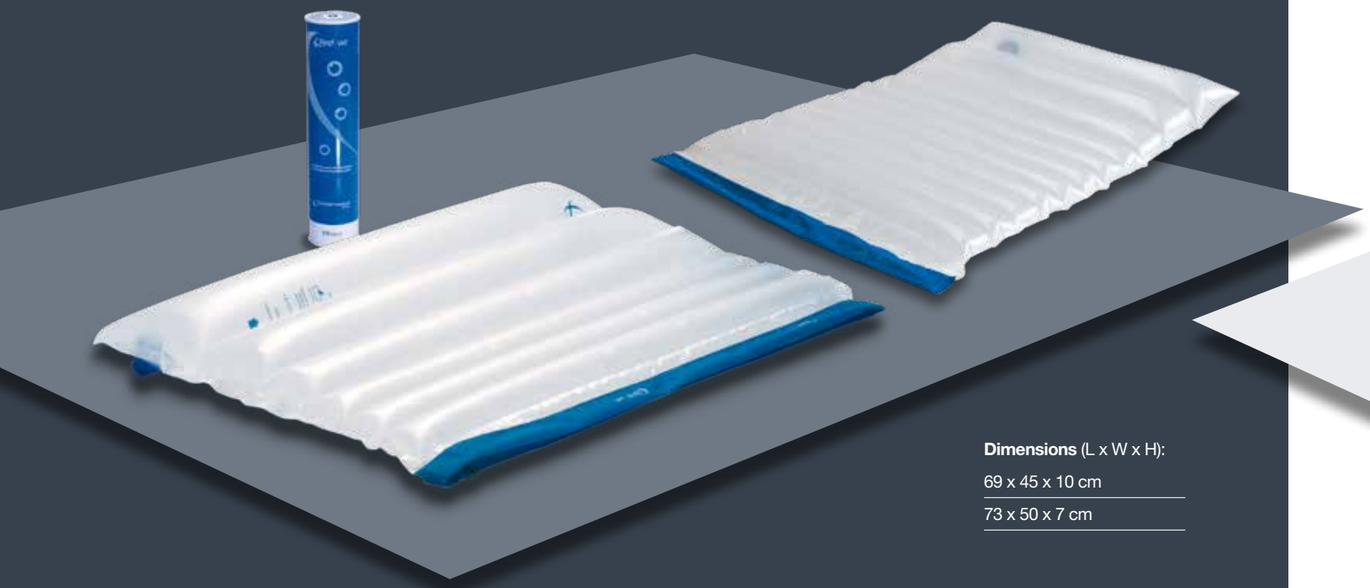
The Repose **Foot Protector** is designed to partially envelop the patient's foot and calf, allowing proper ventilation and inspection of the skin and blood flow. The opening under the heel section ensures floating, while the calf is gently supported by two thick air cells. This also helps to minimise pressure on the Achilles tendon. These foot protectors are an ideal aid for patients who are immobile, under sedation or in a coma, or where there isn't enough space at the foot of the bed.
If necessary, the Repose Foot Protector can be secured to the leg with a light mesh dressing or with the Magnaffix magnetic fixing system depending on the model. The Repose Foot Protector can be supplied with or without an opening under the heel giving the foot extra ventilation and allowing it to be visually inspected.

Determine the right size:

Leg length knee (A) – heel (B)	**Sizes**	**Dimensions** (L x W x H)
41 – 46 cm	Extra small	29 x 20 x 18 cm
45 – 50 cm	Small	33 x 20 x 20.5 cm
49 – 55 cm	Standard	38 x 20 x 23 cm
55 – 69 cm	Large	51 x 20 x 28 cm

Repose Wedge

A multifunctional wedge cushion for floating heels, the prevention of occipital pressure ulcers and installation in the prone position.



Dimensions (L x W x H):

69 x 45 x 10 cm

73 x 50 x 7 cm

A Repose **Wedge** is placed at the foot end of a static, reactive or dynamic mattress, preferably under the bottom sheet. The device provides gentle support for the calves and Achilles tendons of both legs while ensuring that both heels are free to hang over the wedge. This completely offloads any pressure from either heel.

The wedge also gives more active patients the necessary flexibility to regularly change the position of their feet. A Repose Wedge can also be used as a pillow in patients under sedation to provide the necessary occipital or ear support. The narrow version with five extra air cells is perfect for placing patients in the prone position. The narrow wedge is placed under the lower legs with the back of both feet resting on the highest cell. A Repose Babytherm (see the paediatric range) can be used for redistributing the pressure on the face and thorax.

Repose Sole Protector

For the right protection at the foot of the bed

Dimensions (L x W x H):

90 x 40.5 x 5 cm

The Repose **Sole Protector** offers protection to very tall bed-bound patients whose feet are likely to touch the board at the foot end of the bed. This is the case, in particular, when patients are sat upright in bed during a meal or visit. Where a Flex is used to float the heels, the Sole Protector can support the feet and help prevent footdrop. The Sole Protector can be secured to most footboards with the polyurethane fasteners.

Repose
Paediatric range

Pressure redistribution and comfort for the youngest patients

The EPUAP guideline recommends the use of the most appropriate pressure-redistributing devices. Occasionally, pressure-redistributing devices are also required by neonatal, neonatal IC and paediatric units. Repose **Babynest** has been designed for use inside an incubator. It is 58 x 33 cm in size. The raised edge at the bottom end provides a sense of safety and security to the prematurely born infant.
Repose **Babytherm** is a small mattress overlay. It measures 76 by 53 cm and fits into most incubators and cots. Repose Babynest and Babytherm offer 5 cm of headroom and are used for infants with a bodyweight of 3 kg or less. The Repose **paediatric mattress overlay** for paediatric units is larger and measures 129 x 67 cm.

Dimensions (L x W x H):
Babynest 58 x 33 x 10 cm
Babytherm 76 x 53 x 5 cm
Mattress overlay 129 x 67 x 5 cm
Mattress overlay heated mattress pad 75 x 43 x 5 cm

Repose
Total Care Pack

The complete solution for each department

Effective pressure ulcer prevention and treatment means that pressure redistribution devices are introduced quickly. Depending on the patient's state of health, pressure ulcer wounds may appear very quickly. While it usually takes no more than a few hours for non-blanchable redness to develop in an open wound, such redness tends to recede if appropriate action is taken.

The **Repose Total Care Pack** provides caregivers access to the most commonly used Repose devices that can be deployed minutes after the risk of pressure ulcer or an actual pressure ulcer is detected. The Repose Total Care Pack is a convenient and cost-effective total solution consisting of mattress overlays, cushions, foot protectors and wedges, all of which take up little space. Refill packs are available.

The Repose Total Care Pack includes:

- 10 Repose Mattress Overlays
- 5 Repose Cushions
- 4 Repose Foot Protectors Standard (2 pairs)
- 3 Repose Wedges
- 1 Repose Pump – Large
- 1 Repose Pump – Small

Toto
Lateral turning system

Fast **automatic position changes**

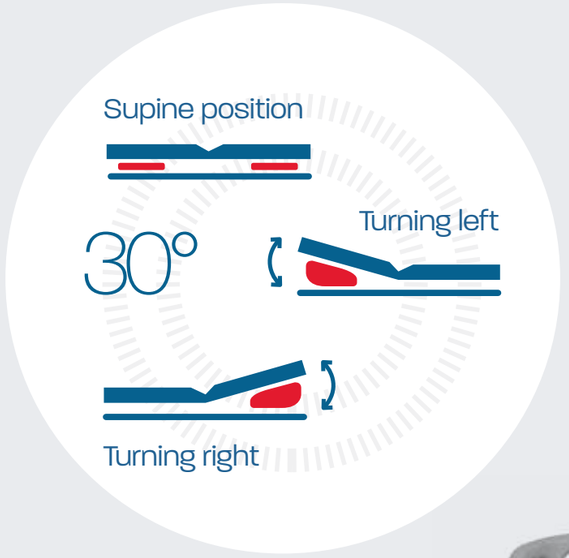
Position changes to prevent pressure ulcers are recommended by the EPUAP/NPUAP/PPPIA and are gradually becoming **standard practice in most healthcare situations**. However, manual patient turning is a time-consuming activity and requires physical effort by the healthcare providers and the patient. Position changes in healthcare should not be interrupted, day or night. However, position changes may be very disruptive for the patient at night as they interrupt sleep.

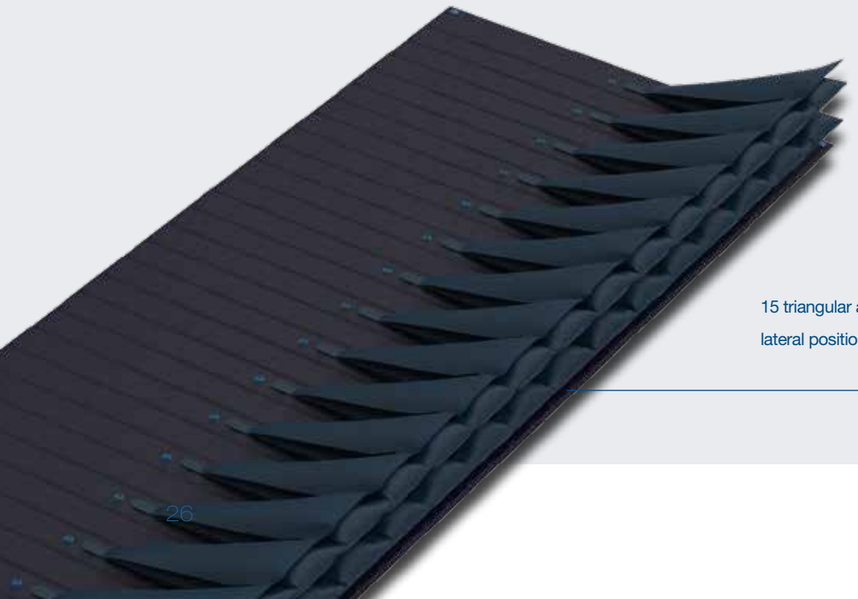
Toto is an **automated position changing system** that complies with the European directives: the system can automatically turn the patient to the left or right side in a 30-degree lateral position or in a supine position.

In fact, Toto offers the possibility to choose the frequency of the changes and whether or not to have the patient resting on a compromised body part.

The Toto system includes a **lifting and turning platform** with a control unit that gently turns patients at regular intervals to prevent pressure ulcers. This decreases the dependency on care providers and nursing personnel.

The Toto system fits any hospital bed and can be used in conjunction with standard or alternating mattresses. The platform is easy to roll up and transport, so it is suitable for institutions as well as home care.





15 triangular air cells for ideal support in the lateral position. (One side is shown.)

Dimensions (L x W x H):

Platform: 185 x 75 cm

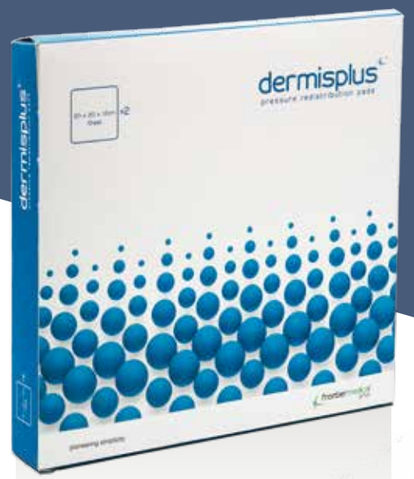
Motor: 24 x 10 x 20 cm

Dermisplus Prevent

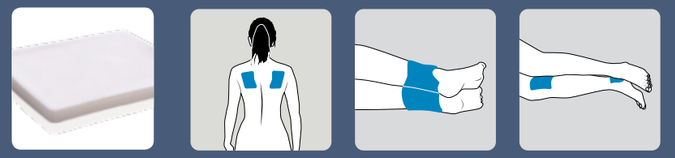
Prevention of pressure ulcers caused by medical devices

The prevention of pressure injuries caused by medical devices such as nasal tubes, endotracheal tubes, nasal oxygen cannula and cervical collars is not an easy task. Compresses or other materials are often used for this purpose, but the results are usually inadequate. Dermisplus Prevent is a **system of pressure-redistributing gel strips** and **gel pads** that are good at adopting the contours of vulnerable areas and can even be cut to size. Dermisplus Prevent is made of a pressure-redistributing TriPolymer gel and is applied to intact skin or areas of the body with Category 1 pressure damage.

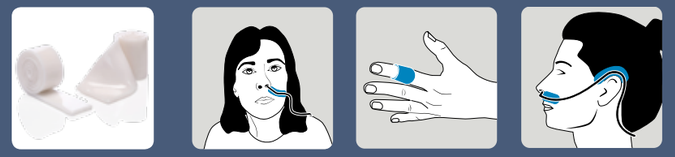
The pad, strips or preformed pads redistribute peak pressures across a wider area. That is how Dermisplus Prevent reduces the risk of tissue damage caused by pressure or shear. Dermisplus is available in several sizes and shapes. The products are washable and can be reused several times for the same patient. Dermisplus Prevent is latex-free, non-irritating and skin-friendly, reducing the risk of allergies and increasing patient comfort.



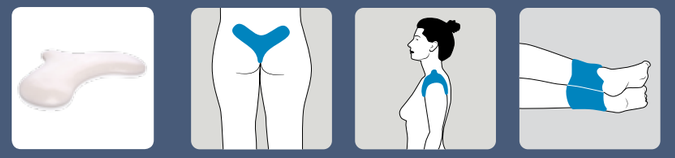
Pad



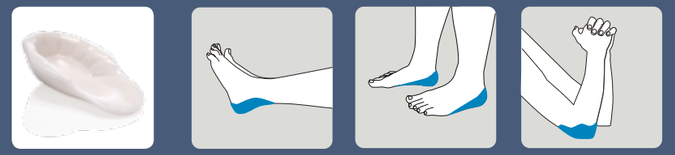
Strips



Sacrum



Heel



Descriptions	**Dimensions** (L x W x H)
Pad	10 x 10 x 0.3 cm
Pad	10 x 10 x 1.2 cm
Pad	20 x 20 x 0.3 cm
Pad	20 x 20 x 1.2 cm
Strip	30 x 5 x 0.3 cm
Strip	50 x 2.5 x 0.3 cm
Sacrum	25 x 18.5 x 1 cm
Heel	14.5 x 9.5 x 4 cm
Large Heel	16.5 x 12 x 6.8 cm

Dermisplus Contact

Silicone wound contact layer

Dermisplus **Contact** is a silicone wound contact layer. The perforated structure allows the wound exudate to be drained to an absorbent dressing. This also makes it suitable for negative pressure therapy. The unique protective film is easy to remove and allows 'no-touch' application. The silicone does not stick in the wound and does not damage the new granulation tissue when the dressing is removed. This allows virtually painless dressing changes. The transparent silicone enables good observation of the wound bed. Dermisplus Contact is recommended for the treatment of skin tears, radiodermatitis wounds and painful, acute or chronic wounds for which a maximum non-adherent effect is required. It can also be used as a carrier of ointments or other topical medication.

Descriptions	**Dimensions** (L x W x H)
Dermisplus Contact	5 x 5 cm
Dermisplus Contact	10 x 10 cm
Dermisplus Contact	10 x 20 cm
Dermisplus Contact	20 x 20 cm

Hospidex Appli

The **Hospidex Appli** software application is a tool that was developed by Hospidex for our customers.

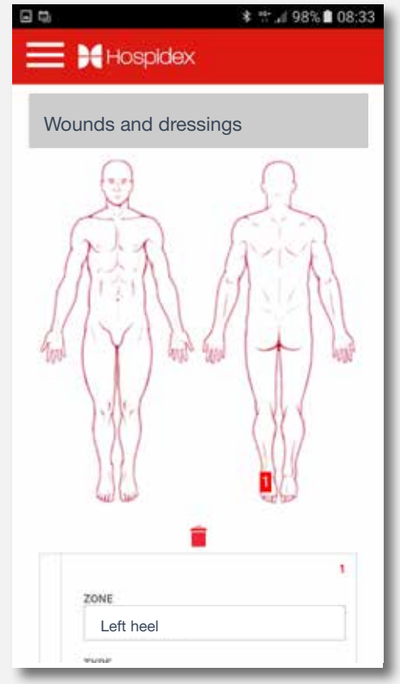
Hospidex Appli was developed by Hospidex to help our customers order and manage medical equipment – specialising in mattresses and accessories for the prevention of pressure sores – and offers wound and pressure sore specialists the option of clinical wound monitoring, evaluation and registration.

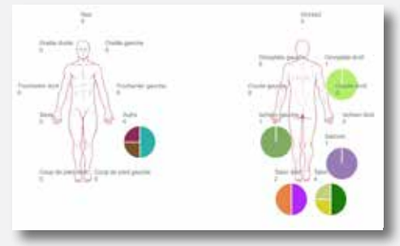
The software runs completely online (Software as a Service or SaaS) and makes it possible to carry out bedside evaluations with a smartphone. All information is sent via HL7 messages and photos of wounds can be sent in DICOM format.

Hospidex Appli also offers many other possibilities:

- Monitoring of patients who are at risk of pressure ulcers
- Real-time dynamic dashboard
- Annual maintenance follow-up
- Mobile notifications in case of technical problems
- Analyses of annual consumption per patient, per unit, per equipment
- Exchange between services
- Connection to the patient's electronic medical record
- ...

The clinical data is stored with ISO 27001-certified hosting and is processed in accordance with GDPR legislation.





Order references

Repose **Cushion**

REP-6201100	Repose® Cushion 45 x 45 cm & pump
REP-6201102	Repose® Cushion 40 x 40 cm & pump
KAR-NHOS27TM47X47X7	Inside cover in blue PU for cushion 45 x 45 cm
KAR-NHOS27TM41X41X7	Inside cover in blue PU for cushion 40 x 40 cm
REP-6231104	Repose® Refresh Cushion Cover, replacement cover for cushion 45 x 45 cm
REP-6231105	Repose® Refresh Cushion Cover, replacement cover for cushion 40 x 40 cm

Repose **Mattress Overlays**

REP-6011100	Repose® Mattress Overlay & pump
REP-6121101	Repose® Mattress Overlay & Cushion 45 x 45 cm & pump
REP-6131100	Repose® Mattress Overlay for 2 persons & pump
REP-6601100	Repose® Mattress Overlay for radiology & pump
KAR-MHOS27TM87X207	Inside cover in blue PU for mattress overlay
REP-6050102	Repose® Refresh Mattress Cover, replacement cover for mattress overlay

Repose **Foot Protectors, Wedge and Flex**

REP-6531100	1 pair of Repose® Foot Protectors Extra Small & pump
REP-6521100	1 pair of Repose® Foot Protectors Small & pump
REP-6501100	1 pair of Repose® Foot Protectors Standard & pump
REP-6021100	1 pair of Repose® Foot Protectors Large & pump
REP-6551100	1 pair of Repose® Foot Protectors Plus Extra Small & pump
REP-6541100	1 pair of Repose® Foot Protectors Plus Small & pump
REP-6511100	1 pair of Repose® Foot Protectors Plus Standard & pump
REP-6542000	1 pair of Repose® Foot Protectors Standard with Magnaffix (4 layers) & pump
REP-6542001	1 pair of Repose® Foot Protectors Large with Magnaffix (4 layers) & pump
REP-6711100	Repose® Wedge & pump
REP-6711111	Repose® Wedge with PU fastening strap & pump
REP-6921101	Repose® Wedge & 5 additional 'special' air sections & pump
REP-6750000	Repose® Flex Extra Small & pump
REP-6750001	Repose® Flex Small & pump
REP-6750002	Repose® Flex Standard & pump
ORT-REP/HEEL/SPALK	Splint for 1 Repose Foot Protector

Repose **Sole Protector**

REP-6930001	Repose® Sole Protector & pump

Repose **Care-Sit**

REP-6351001	Repose® Care-Sit 45 cm: cover & inner mattress & pump
REP-6350001	Repose® Care-Sit 40 cm: cover & inner mattress & pump
REP-6351011	Repose® Care-Sit 45: inner mattress & pump
REP-6350011	Repose® Care-Sit 40: inner mattress & pump
KAR-SHOS27TM55X96	CS inside cover in blue PU for Care-Sit 45 cm
KAR-SHOS27TM52X94	CS inside cover in blue PU for Care-Sit 40 cm

Repose **Contur Acute**

REP-6310001	Repose® Contur Acute: Cover in blue PU & inner mattress & pump
REP-6310002	Repose® Contur Acute: 2 covers in blue PU & 1 inner mattress & pump
REP-6300003	Repose® Contur inner mattress & pump
REP-6310000	Repose® Contur Acute cover in blue PU

Repose **Companion**

REP-6990012	Repose® Companion 55 (without inner mattress)
REP-6990050	Repose® Companion 55 & inner mattress (REP-6601100) & pump
REP-6990051	Repose® Companion 55 & 2 inner mattresses (REP-6601100) & 2 pumps
REP-6991013	Repose® Companion 55 with loop handles (without inner mattress)
REP-6992012	Repose® Companion 55 with loop handles & inner mattress (REP-6601100) & pump
REP-6990002	Repose® Companion 80 (without inner mattress)
REP-6990003	Repose® Companion 80 & inner mattress (REP-6011100) & pump
REP-6990004	Repose® Companion 80 & 2 inner mattresses (REP-6011100) & 2 pumps

Repose **Ultracore**

REP-9100013	Repose® Ultracore & pump
REP-079207	Repose® Ultracore inner mattress with umbilical valve & pump

Repose **Paediatric Range**

REP-6401100	Repose® Babytherm & pump
REP-6801100	Repose® Mattress Overlay for paediatrics & pump
REP-6801101	Repose® Babynest & pump
REP-6801111	Repose® Babynest without raised edges & pump
REP-6181105	Repose® Mattress Overlay for paediatric heated pad & pump

Repose **Total Care Pack**

REP-6882994	Repose® Total Care Pack: 10 Repose® Mattress Overlays & 3 Repose® Wedges & 5 Repose® Cushions & 4 Repose® Foot Protectors & 1 Repose® Pump (Small) & 1 Repose® Pump (Large)

Repose **Combo Packs** (bulk)

REP-6200101	10 Repose® Cushions 45 x 45 cm & 1 pump
REP-6111100	10 Repose® Mattress Overlays & 1 pump
REP-6500200	10 pairs of Repose® Foot Protectors Standard & 1 pump
REP-6500201	10 pairs of Repose® Foot Protectors Large & 1 pump
REP-6511110	10 pairs of Repose® Foot Protectors Plus Standard & 1 pump
REP-6700102	10 Repose® Wedges Standard & 1 pump
REP-6930010	10 Repose® Sole Protectors & 1 pump
REP-6500300	10 pairs of Repose® Foot Protectors Standard with Magnaffix (4 layers) & 1 pump
REP-6500301	10 pairs of Repose® Foot Protectors Large with Magnaffix (4 layers) & 1 pump

Toto

TOT-4000000	Toto® Toto Touch Digital Control Unit
TOT-4100001	Toto® Platform
TOT-4200000	Toto® Platform Cover

Dermisplus PREVENT

DPL-8500007	Dermisplus® PREVENT – Pad – 10 x 10 x 0.3 cm – (5/box)
DPL-8500003	Dermisplus® PREVENT – Pad – 10 x 10 x 1.2 cm – (5/box)
DPL-8500005	Dermisplus® PREVENT – Pad – 20 x 20 x 0.3 cm – (2/box)
DPL-8500009	Dermisplus® PREVENT – Pad – 20 x 20 x 1.2 cm – (2/box)
DPL-8500006	Dermisplus® PREVENT – Strip – 30 x 5 x 0.3 cm – (5/box)
DPL-8500001	Dermisplus® PREVENT – Strip – 50 x 2.5 x 0.3 cm – (5/box)
DPL-8500002	Dermisplus® PREVENT – Heel – 14.5 x 9.5 x 4 cm – (2/box)
DPL-8500004	Dermisplus® PREVENT – Heel Large – 16.5 x 12 x 6.8 cm – (2/box)
DPL-8500008	Dermisplus® PREVENT – Sacrum – 25 x 18.5 x 1 cm – (1/box)

Dermisplus CONTACT

DPL-8510001	Dermisplus® CONTACT – 5 x 5 cm – (10/box)
DPL-8510002	Dermisplus® CONTACT – 10 x 10 cm – (10/box)
DPL-8510003	Dermisplus® CONTACT – 10 x 20 cm – (5/box)
DPL-8510004	Dermisplus® CONTACT – 20 x 20 cm – (5/box)

Notes

Some milestone studies in Repose history:

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- Defloor T. et al. Het belang van zithouding endrukreduceren de kussens in het ontstaan van drukletsels. WCS. 1999;15:44-51.
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- Serraes B., Beeckman D. (2016). Static Air Support Surfaces to Prevent Pressure Ulcers: a Multicenter Cohort Study in Belgian Nursing Homes. Journal of Wound, Ostomy and Continence Nursing
- Serraes B., van Leen M., Schols J., Van Hecke A., Verhaeghe S., Beeckman D. Prevention of pressure ulcers with a static air support surface: A systematic review, Wiley IWJ, 2017
- START study: An RCT to compare the effectiveness of a static air mattress versus an alternating air pressure mattress to prevent pressure ulcers. Serraes B., Verhaeghe S., Anrys C., Van Tiggelen H., Van Hecke A., Beeckman D. Publication expected soon.

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MK2019-020-EN