Pressure Injury Management Solutions

Aged Care and Community Care

Safetac® TECHNOLOGY

Mölnlycke®

What is pressure injury?

A pressure injury is defined as localised damage to the skin and/or underlying tissue, as a result of pressure or pressure with shear. Pressure injuries usually occur over a bony prominence or related to a medical device or other object.

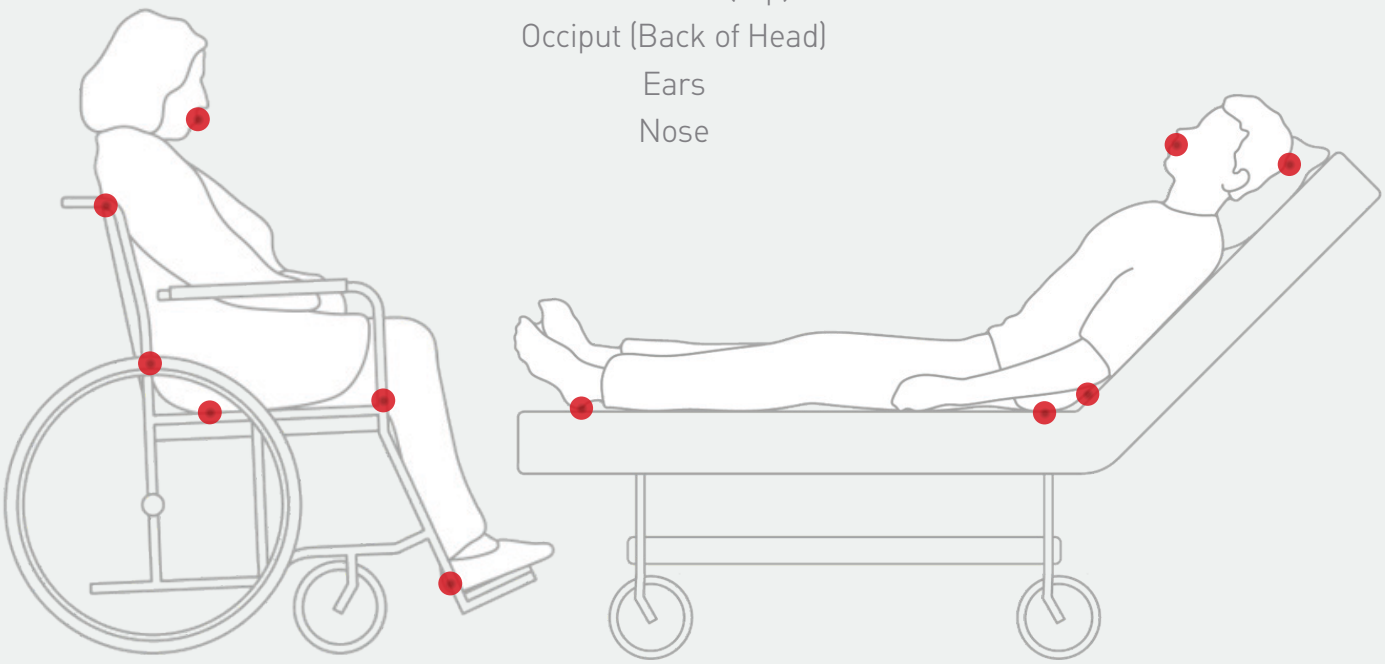
The injury can present as intact skin or an open injury and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear.[1]

Most common areas for Pressure Injuries

Pressure injuries often occur over bony prominences
on bed or seat-bound consumers

Most common areas are:[2]

Sacrum/Coccyx
Buttocks
Heels
Trochanters (Hip)
Occiput (Back of Head)
Ears
Nose



Factors associated with increased risk of pressure injuries

Extrinsic risk factors – Factors from the environment[2,3]

Pressure injuries are often caused by a combination of intrinsic and extrinsic factors.

PRESSURE
A force applied at right angles to the surface of the skin

SHEAR FORCE
A combination of friction and pressure

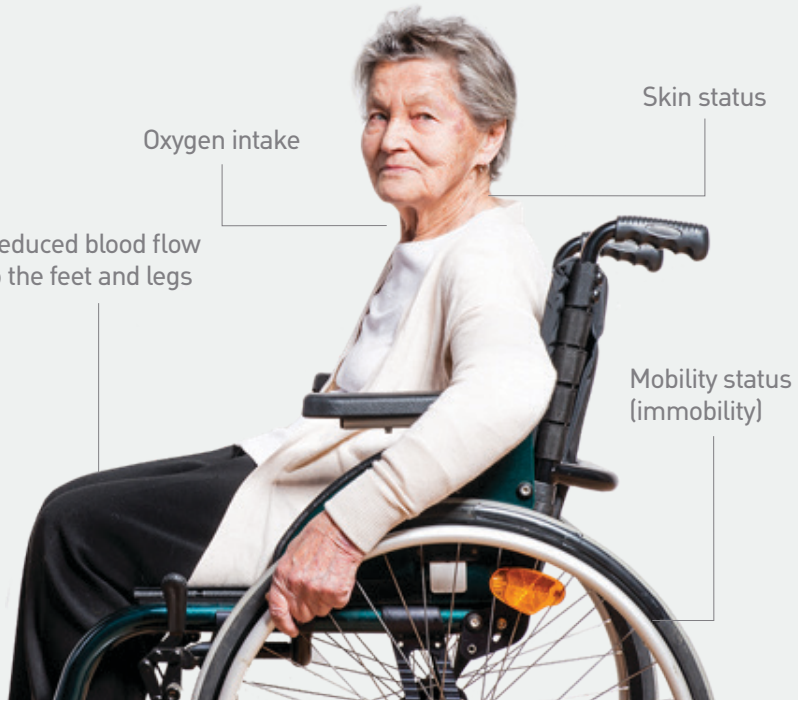
FRICTION
A force that occurs when skin slides against another surface

SKIN MICRO-CLIMATE
The temperature and moisture levels where skin and support surface meet

Factors associated with increased risk of pressure injuries

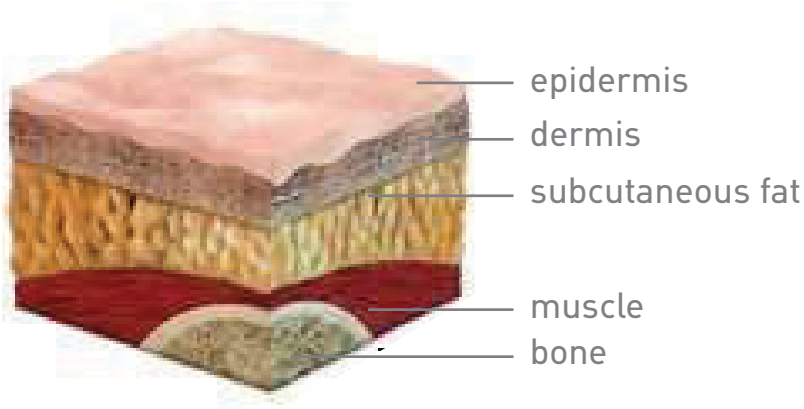
Intrinsic risk factors – factors that are parts of the patient/consumer[2,4]

- ✓ Age
- ✓ Mobility status (immobility)
- ✓ Nutritional status
- ✓ Other illnesses
- ✓ History of pressure injuries



Pan Pacific Pressure Injury Classification

Normal adult skin



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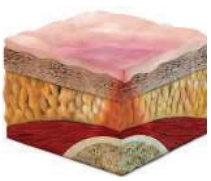
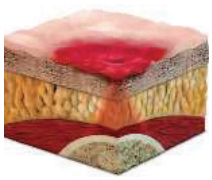
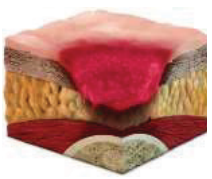
Text adapted from: International NPUAP/EPUAP Pressure Ulcer Classification System (2009, Advisory Panel (EPUAP), Pan Pacific Pressure Injury Alliance (PPPIA), Prevention and Media: Osborne Park, WA. 3D graphics: Owned by PPPIA, supported by Silver Chain. Photos: Classification System: Multicultural, PPPIA Classification System for Adults with Light Skin Skin Tones, PPPIA Classification System for Neonates and Children. More information and

Stage 1	Stage 2	Stage 3
Intact skin with non-blanchable redness of a localised area usually over bony prominences. Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area. The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue. Stage I pressure injuries may be difficult to detect in older adults with darkly pigmented skin tone. May indicate 'at risk' older adults (a heralding sign of risk).	Partial thickness loss of dermis presenting as a shallow open ulcer with a red/pink wound bed, without slough. May also present as an intact or open/ ruptured serum-filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising (bruising indicates suspected deep tissue injury). Stage 2 pressure injuries should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation.	Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon or muscle are not exposed. Slough may be present but does not obscure depth of tissue loss. May include undermining and tunnelling. The depth of Stage 3 pressure injuries varies by anatomical location. The bridge of nose, ear, occiput and malleolus do not have subcutaneous tissue and Stage 3 ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep Stage 3 pressure injuries. Bone/tendon is not visible or directly palpable.








System for older consumers[5]

PAN PACIFIC
Pressure Injury Alliance

Normal older skin

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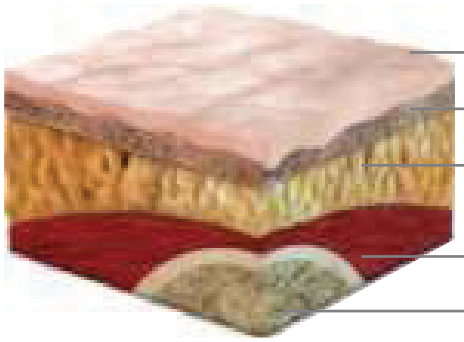


Compared to the skin of younger adults, older skin has a thinner, more wrinkled epidermis and may appear paler or with pigmented (age) spots. Epidermis, dermis and subcutaneous fat layers are thinner. Skin moisture concentration is reduced and skin pH is raised in older adults.

2014) published in: National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Treatment of Pressure Ulcers: Clinical Practice Guideline. 2014: Emily Haesler (Ed.) Cambridge Photos courtesy of K. Carville, used with permission. Also available in this series: PPPIA Tones, PPPIA Classification System for Dark Skin Tones, PPPIA Classification System for Asian permission: www.pppia.org © PPPIA 2020

Stage 4

Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunnelling. The depth of a Stage 4 pressure injury varies by anatomical location. The bridge of nose, ear, occiput and malleolus do not have subcutaneous tissue and these ulcers can be shallow. Stage 4 pressure injuries can extend into muscle and/or supporting structures (e.g. fascia, tendon or joint capsule) making osteomyelitis possible. Exposed bone/ tendon is visible or directly palpable.

Unstageable

Full thickness tissue loss in which the ulcer base is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, (and therefore Stage) cannot be determined. Stable (dry, adherent, intact, no erythema or fluctuance) eschar on the heels serves as 'the body's natural (biological) cover' and should not be removed.

Suspected Deep Tissue Injury

Purple or maroon localised area of discoloured intact skin or bloodfilled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. Deep tissue injury may be difficult to detect in older adults with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and be covered by thin eschar. Evolution may be rapid, exposing additional layers of tissue even with optimal treatment.

Older consumers and aging skin

Thinner dermis and epidermis and flattened interface between them[6,7]	➤	**Skin becomes more susceptible to pressure, shear and friction[6,7]**
Reduced blood supply[8]	➤	**Decrease in sensation, temperature and moisture control[8]**
Decreased sweat[9]	➤	**Dryer skin[9]**
Loss of elasticity, strength and fat[7]	➤	**More fragile and susceptible to age-related trauma[7]**

Best practice - recommended interventions

Standard of care is usually not enough...

...additional interventions are needed[2]

Creating a contemporary prevention solution

- Develop a personalised, consumer-centred plan of care for all 'at risk' individuals
- Pressure injury risk assessment on admission and continuously throughout stay is crucial
- Evidence-based recommendations should be followed

How efficient are prophylactic dressings?

Prophylactic dressings are recommended in international guidelines and consensus document published 2016[3]

All dressings are not the same.

Therefore it is important to use dressings supported by strong evidence

Mepilex® Border Sacrum has demonstrated **up to 88% reduction** in pressure injury incidence compared to control groups in multiple randomised controlled trials[10-12]

Prophylactic Dressings

Mepilex® Border has been proven to reduce the chance of getting a pressure injury on the sacrum or heels[10-12]

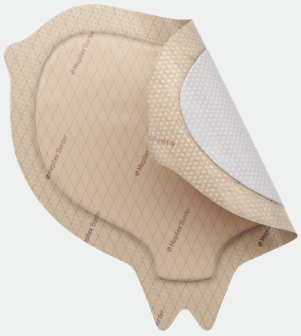
When applied correctly, protection against pressure injuries lasts several days.

Prophylactic dressings – a great first line of defense

Sacrum and heels are the main risk areas because they are difficult to offload for bed bound consumers. Elevating the head of the bed increases risk on sacrum and heels[2]

Mepilex® Border Sacrum and Mepilex® Border Heel dressings are proven to reduce the incidence of pressure injuries[11,12]

They can provide **continuous protection** over several days[11,12]

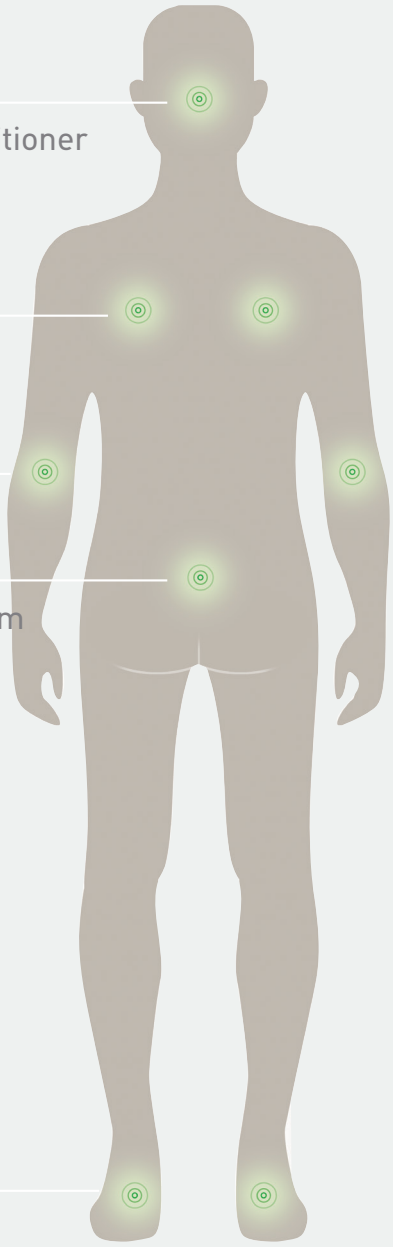


Turning and Positioning System

- Turn and position bed-bound and at-risk consumers every 2-4 hours
- Usually alternating between supine and slight lateral position
- Make sure there is no pressure on the sacrum when side-lying
- Avoid turning a consumer onto an existing pressure injury
- Keep heels raised off the bed

Mölnlycke® Pressure Injury Prevention Portfolio

Supine positioning



OCCIPUT
Z-Flo® Fluidized Positioner
or
Mepilex® Border Flex

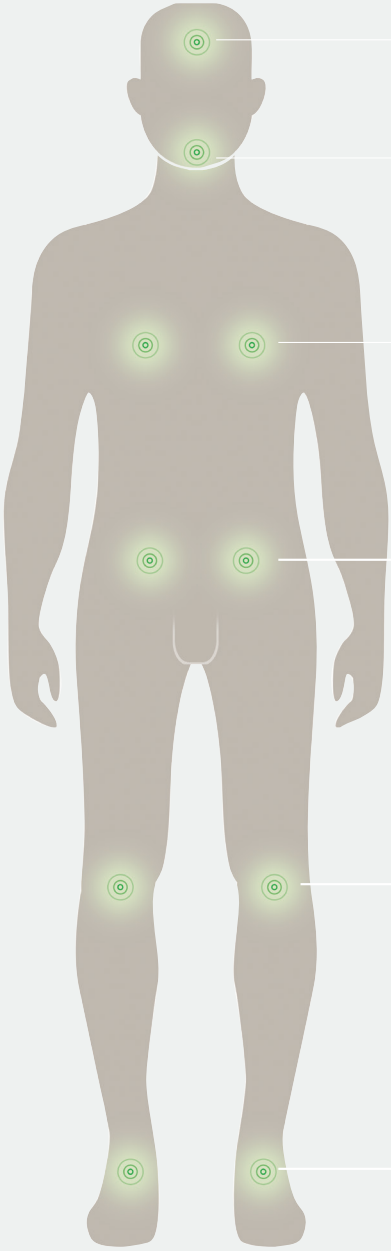
SCAPULA
Mepilex Border Flex

ELBOW
Mepilex Border Flex

SACRUM
Mepilex Border Sacrum

HEEL
Mepilex Border Heel
or
Offload:
Z-Flo Fluidized Positioner
Z-Flex® Heel Boot

Prone positioning



FOREHEAD and CHIN
Mepilex Border Flex Oval

CHEST
Mepilex Border Flex

ILIAC CREST
Mepilex Border Flex

KNEE
Mepilex Border Flex

DORSUM of FOOT
Mepilex Border Flex

For sacrum and heel use

With proprietary Deep Defense® technology

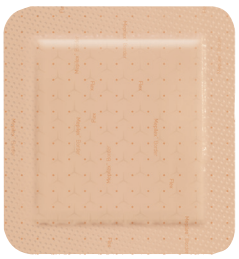
Mepilex Border Sacrum
Safetac TECHNOLOGY

Mepilex Border Heel
Safetac TECHNOLOGY

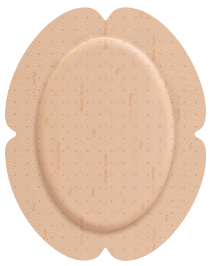
For other anatomic areas use

With proprietary Flex Technology

Mepilex Border Flex
Safetac TECHNOLOGY



Mepilex Border Flex Oval
Safetac TECHNOLOGY



Did you know?

We also have
Tortoise® Turning & Positioning System
for continuous offloading of the sacrum in supine positioning

Z-Flex Heel Boot and Z-Flo Fluidized Positioners
For offloading of the heel and other body parts

Education resources - Pressure Injury Staging

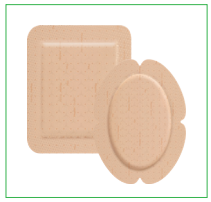
Category/Stage I. Persistent, non-blanchable erythema

Wound appearance

Description

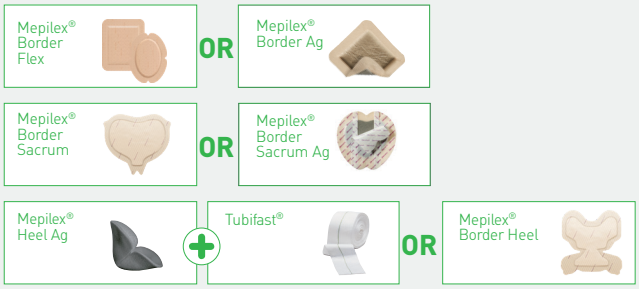
Intact skin with non-blanchable redness of a localised area, usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area. A Stage I may indicate a patient at risk.

Solutions*

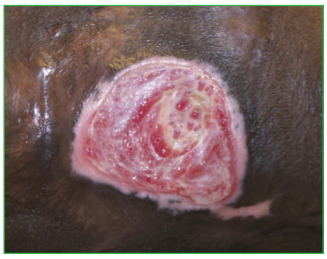
Mepilex® Border Sacrum	Mepilex® Border Heel	Mepilex® Border Flex
		
Sacrum	Heel	Other areas outside of sacrum and heel

Category/Stage II. Partial thickness skin loss

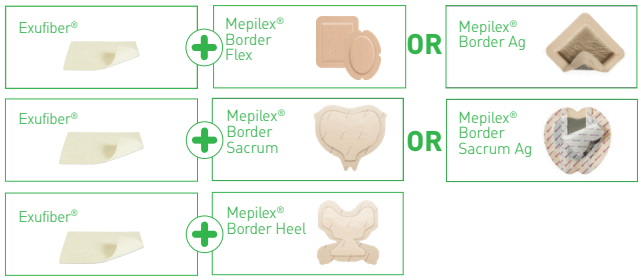
Partial thickness loss of dermis, presenting as a shallow open ulcer with a red-pink wound bed, without slough. May also present as an intact or open/ruptured, serum-filled blister. This should not be used when describing skin tears, for example – be aware that if bruising is present, it may indicate deep tissue injury.



Category/Stage III. Full thickness skin loss

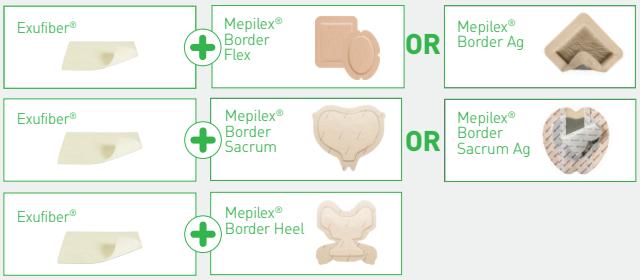


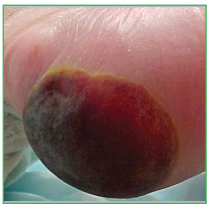
Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunnelling. Be aware that the depth here varies by location – for example, on an ear where subcutaneous tissue is not present.



Category/Stage IV. Subcutaneous tissue loss

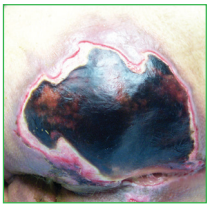
Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunnelling. Be aware that the depth here varies by location – for example, on an ear where subcutaneous tissue is not present; Stage IV wounds can extend into muscle and supporting structures.





Suspected deep tissue injury

Purple or maroon localised area of discoloured intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler when compared to adjacent tissue.



Unstageable

Full thickness tissue loss in which the base of the injury is covered by slough (yellow, tan, grey, green or brown) and/or eschar (tan, brown or black) in the wound bed.

Note – it is regarded as incorrect to reverse stage/categorise a wound as it heals.
For example, a Stage/Category IV should always be documented as such – the use of specific tools to monitor healing should be utilised.

*** When used in combination with a comprehensive pressure injury program, the suggested products may aid in the prevention and treatment of pressure injuries by protecting the skin from moisture and shear.**

Education resources

Pressure injury management decision flow chart

We provide products versatile enough to be used for both prevention and treatment of a variety of wounds. Together we can design and implement a streamlined pressure injury management protocol based on fewer products, which is both easy to follow and may offer cost savings through reduction in product variations.

DOES YOUR PATIENT HAVE A PRESSURE INJURY?

Is the wound shallow or deep?

SHALLOW

DEEP

NOT INFECTED

Exufiber® gelling fiber

INFECTED

Consider **antimicrobial dressings** such as
Mepilex Border Ag
Mepilex Sacrum Ag
Mepilex Heel Ag

Is the patient at risk?

Continue regular reassessment

Dressings for prevention and treatment

Mepilex® Border Sacrum

Mepilex® Border Heel

Mepilex® Border Flex for other bony prominences

Offloading options

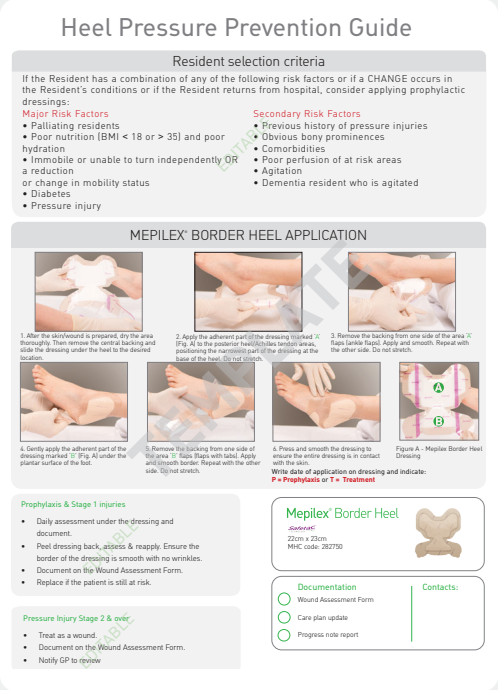
Mölnlycke® Z-Flo® Fluidized positioner

Mölnlycke® Tortoise® Turning & Positioning System

Mölnlycke® Z-Flex® Heel Boot

Education resources

Pressure Injury Prevention Guides



Heel Pressure Prevention Guide

Resident selection criteria

If the Resident has a combination of any of the following risk factors or if a CHANGE occurs in the Resident's conditions or if the Resident returns from hospital, consider applying prophylactic dressings:

Major Risk Factors
- Palliating residents
- Poor nutrition (BMI < 18 or > 35) and poor hydration
- Immobile or unable to turn independently OR a reduction or change in mobility status
- Diabetes
- Pressure injury

Secondary Risk Factors
- Previous history of pressure injuries
- Obvious bony prominences
- Comorbidities
- Poor perfusion of at risk areas
- Agitation
- Dementia resident who is agitated

MEPILEX® BORDER HEEL APPLICATION

1. After the skin/wound is prepared, dry the area thoroughly. Then remove the central backing and slide the dressing under the heel to the desired location.
2. Apply the adherent part of the dressing marked 'A' (Fig. A) to the posterior heel/Achilles tendon areas, positioning the narrowest part of the dressing at the base of the heel. Do not stretch.
3. Remove the backing from one side of the area 'A' flaps (ankle flaps). Apply and smooth. Repeat with the other side. Do not stretch.
4. Gently apply the adherent part of the dressing marked 'B' (Fig. A) under the plantar surface of the foot.
5. Remove the backing from one side of the area 'B' flaps (flaps with tabs). Apply and smooth border. Repeat with the other side. Do not stretch.
6. Press and smooth the dressing to ensure the entire dressing is in contact with the skin.

Figure A - Mepilex Border Heel Dressing

Write date of application on dressing and indicate:
P = Prophylaxis or T = Treatment

Prophylaxis & Stage 1 injuries
- Daily assessment under the dressing and document.
- Peel dressing back, assess & reapply. Ensure the border of the dressing is smooth with no wrinkles.
- Document on the Wound Assessment Form.
- Replace if the patient is still at risk.

Pressure Injury Stage 2 & over
- Treat as a wound.
- Document on the Wound Assessment Form.
- Notify GP to review

Mepilex® Border Heel
Safetac®
22cm x 22cm
MHC code: 282750

Documentation
- Wound Assessment Form
- Care plan update
- Progress note report

Contacts:

Sacral Pressure Prevention Guide

Resident Selection Criteria

If the Resident has a combination of any of the following risk factors or if a CHANGE occurs in the Resident's conditions or if the Resident returns from hospital, consider applying prophylactic dressings:

Major Risk Factors
- Palliating residents
- Poor nutrition (BMI < 18 or > 35) and poor hydration
- Immobile or unable to turn independently OR a reduction or change in mobility status
- Diabetes
- Incontinence OR Incontinence with a pressure injury
- Incontinence associated dermatitis

Secondary Risk Factors
- Previous history of pressure injuries
- Obvious bony prominences
- Comorbidities
- Poor perfusion of at risk areas
- Agitation
- Dementia resident who is agitated

MEPILEX® BORDER SACRUM APPLICATION

1. Area to protect. Assess the patient's anatomy and determine appropriate dressing positioning.
2. After skin is prepared, remove the centre release film by gently pulling on the pink-lined edge.
3. Hold buttocks apart. Apply dressing to sacral area and into upper aspect of gluteal cleft, with dressing 'base' positioned to cover coccyx area.
4. Remove side release films and gently smooth each side into place.
5. Product placement.
Write date of application on dressing and indicate:
P = Prophylaxis
T = Treatment
Apply liquid skin barrier to the outside (NOT underneath) of the dressing border and onto intact skin
6. Press and smooth the dressing to ensure the entire dressing is in contact with the skin.

Prophylaxis & Stage 1 injuries
- Daily assessment under the dressing and document.
- Peel dressing back, assess & reapply.
- Document on the Wound Assessment Form.
- Remove and replace dressing after 3 days.
- Replace if the Resident is still at risk.

Pressure Injury Stage 2 & over
- Treat as a wound.
- Document on the Wound Assessment Form.
- Notify GP to review.
- Remove after 7 days or when 75% strikethrough.

Mepilex® Border Sacrum
Safetac®
16cm x 20cm
Product code: 282050
22cm x25cm
Product code: 282450

Documentation
- Wound Care Assessment Form
- Care Plan Update
- Progress note reports

Contacts

Online Education Offering

- ✓ Online education modules
- ✓ Webinars from industry experts
- ✓ Wound care product how-to videos

Education Modules

www.molnlycke.com.au/our-knowledge/
www.molnlycke.co.nz/our-knowledge/

Webinars

https://www.molnlycke.com.au/news-events/webinars/
https://www.molnlycke.co.nz/news-events/webinars/

How-to Videos

https://www.molnlycke.com.au/our-knowledge/wound-care-dressings-how-to/
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Pressure Injury Management Solutions

5-Layer Foam Dressings

Scan any QR codes below to find out more about our products

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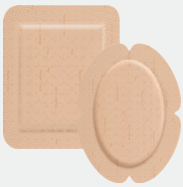

Mepilex® Border Flex

Absorbent self-adherent foam dressing with 360° stretch Flex Technology

SafetaC TECHNOLOGY

Areas of use

- Moderate to heavily exuding wounds
- Diabetic foot ulcers
- Leg and foot ulcers
- Traumatic wounds, such as skin tears
- Pressure injury prevention* and treatment

* When a repositioning/offloading protocol is used

Square	
7.5cm x 7.5cm	595211
10cm x 10cm	595311
12.5cm x 12.5cm	595011
15cm x 15cm	595411
15cm x 20cm	595611
Oval	
7.8cm x 10cm	583500
13cm x 16cm	583300
15cm x 19cm	583400

Mepilex® Border Sacrum

Absorbent self-adherent foam dressing for the sacral area

SafetaC TECHNOLOGY

Areas of use

- Moderate to heavily exuding wounds for the sacral area
- Sacral pressure injury prevention and treatment
- Protection from moisture, shear and friction

16cm x 20cm	282050
22cm x 25cm	282450

Mepilex® Border Heel

Absorbent self-adherent foam dressing for the heel area

SafetaC TECHNOLOGY

Areas of use

- Moderate to heavily exuding wounds for the heel area
- Heel pressure injury prevention and treatment
- Protection from moisture, sheer and friction
- Diabetic foot ulcers
- Heel ulcers
- Traumatic wounds

22cm x 23cm	282750

Fibre Dressing for exudate management

Exufiber®

Gelling fibre dressing with Hydrolock® Technology

Areas of use

- Leg ulcers and diabetic foot ulcers
- Pressure injuries
- Partial thickness burns
- Surgical wounds
- Donor sites
- Malignant wounds

5cm x 5cm	709900
10cm x 10cm	709901
15cm x 15cm	709903
20cm x 30cm	709904
4.5cm x 20cm	709906
1cm x 45cm (Cavity)	709908
2cm x 45cm (Cavity)	709909

Pressure Injury Management Solutions

Turning and Positioning Systems

Scan any QR codes below to find out more about our products

Content in our materials is available exclusively for healthcare professionals.
Please log in using either your **AHPRA registration number** or the following code **1FtYrV**.

Mölnlycke® Z-Flex™ Heel Boot

To maintain offloading of heels overtime. The combination of positive air displacement and fluidised positioning helps offload the heel and spread the pressure evenly over the Achilles tendon.

- Fully offloads the heel
- Positions feet in neutral alignment
- Accommodates compression devices
- Quick access for heel inspection
- Thermal regulating material
- One size fits most

One size fits most
2 boots per box
1400122
8 boots per box
1400123

Mölnlycke® Z-Flo™ Fluidized Positioner

To assist with patient positioning and offloading of at risk anatomical sites.

- Redistributes pressure or offloads
- Keeps consumers in position
- Mouldable to protect vulnerable areas

With Tab
41cm x 76cm
1401003
Without Tab
64cm x 91cm
1401005
29cm x 50cm
1401007
(Occipital)

Mölnlycke® Tortoise™ Turning & Positioning System

To assist with turning and repositioning of consumers.

- Provides continuous pressure redistribution
- Supports a wide degree of turns to increase efficiency
- Can be used to create any degree of turn required by the patient's condition
- Reduces the risk of caregiver injury[13]
- Approved for lateral transfer and MRI to minimise lifting

Standard - 1400800
Bariatric - 1400801

NB: Please refer to Instructions for Use prior to usage.

To watch application videos please visit **Mölnlycke ANZ Youtube channel** or **scan the QR code** below.

References: 1. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline 2019. 2. NPUAP, EPUAP and PPPIA. Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. Haesler, E. (Ed.). Cambridge Media: Perth, Australia; 2014. 3. World Union of Wound Healing Societies (WUWHS) Consensus Document. Role of dressings in pressure ulcer prevention. Wounds International, 2016. 4. Coleman, S., Nixon, J., Keen, J., et al. A new pressure ulcer conceptual framework. Journal of Advanced Nursing 2014;70(10):2222-2234. 5. Pan Pacific Pressure Injury Alliance. Pan Pacific Pressure Injury Alliance Resources [Internet]. 2020 [updated June 2020; cited October 2020]. Available from: https://pppia.org/static/pdfs/pppia-classification-system-older-adults.pdf. 6. Voegell D. Basic essentials: why elderly skin requires special treatment. Nurs Res Care, 2010. 7. Cooper P, Russell F, Stringfellow S. Managing the treatment of an older patient who has a skin tear.Wound Essentials, 2006. 8. Carville K. et al. The effectiveness of a twice-daily skin-moisturising regimen for reducing the incidence of skin tears. International Wound Journal, 2014. 9. Langemo DK, Brown G. Skin fails too: acute, chronic, and end-stage skin failure. Adv Skin Wound Care, 2006. 10. Kalowes P, et al. Five-layered soft silicone foam dressing to prevent pressure ulcers in the intensive care unit. Am J Crit Care. 2016;25(6):e108-e119. 11. Santamaria, N., Gerdtz, M., Sage, S., McCann, J., Freeman, A., Vassiliou, T., De Vincentis, S., Ng, A.W., Manias, E., Liu, W., Knott, J.. A randomised controlled trial of the effectiveness of soft silicone multi-layered foam dressings in the prevention of sacral and heel pressure ulcers in trauma and critically ill patients the border trial. International Wound Journal 2015;12(3):302-308. 12. Santamaria N, et al. A randomised controlled trial of the clinical effectiveness of multi-layer silicone foam dressings for the prevention of pressure injuries in high-risk aged care residents: The Border III Trial. International Wound Journal 2018 DOI: 10.1111/iwj.12891. 13. 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.

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