


A pathway for  
treating a person with a:

# *Pressure injury/ulcer*



An evidence-based step-by-step guide  
developed by clinicians for clinicians

## Developed by clinicians for clinicians

This Pathway was developed with feedback and input from over 2200 health care professionals in the field of wound care. It offers a unique evidence-based approach to managing pressure injuries/ulcers and lets you put the latest evidence in wound care to use in real life.

### Authors:

Terry Swanson, Nurse practitioner, Australia; Dr. Caroline Dowsett, United Kingdom; Dr. Jose Ramon March Garcia, Spain; Emily Greenstein, Nurse practitioner, USA; Dr. David Keast, Canada; Dr. Long Zhang, China; Dr. Hester Colboc, France

### Clinical references:

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.
2. Gefen A, Brienza D, Edsberg L, et al. The etiology of pressure injuries. In: Haesler E, ed. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline: European Pressure Ulcer Advisory Panel. Pan Pacific Pressure Injury Alliance: National Pressure Ulcer Advisory Panel; 2019. [Google Scholar]
3. World Union of Wound Healing Societies (WUWHS), Consensus Document. Role of dressings in pressure ulcer prevention. Wounds International, 2016
4. Pressure ulcers: revised definition and measurement, summary and recommendations NHS Improvement, 2018.
5. European Pressure Ulcer Advisory Panel, National Pressure Injury Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers/Injuries: Quick Reference Guide. Emily Haesler (Ed.). EPUAP/NPIAP/PPPIA: 2019.
6. Wounds UK (2021) Best Practice Statement: Addressing skin tone bias in wound care: assessing signs and symptoms in people with dark skin tones. Wounds UK, London. Available to download from: [www.wounds-uk.com](http://www.wounds-uk.com)
7. <https://www.epuap.org/wp-content/uploads/2012/07/SCALE-Final-Version-2009.pdf>
8. Norton L, Parslow N, Johnston D, Ho C, Afalavi A, Mark M, et al. Best practice recommendations for the prevention and management of pressure injuries. In: Foundations of Best Practice for Skin and Wound Management. A supplement of Wound Care Canada; 2017. 64 pp. Retrieved from: [www.woundscanada.ca/docman/public/health-care-professional/bp](http://www.woundscanada.ca/docman/public/health-care-professional/bp)
9. Advances in early detection of pressure injuries." Koerner S, Adams D, Harper SL, Black JM, Langemo DK. Use of Thermal Imaging to Identify Deep-Tissue Pressure Injury on Admission Reduces Clinical and Financial Burdens of Hospital-Acquired Pressure Injuries. Adv Skin Wound Care. 2019 Jul;32(7):312-320. doi: 10.1097/01.ASW.0000559613.83195.f9. PMID: 31192867; PMCID: PMC6716560.

## Take a shorter way to wound healing

By following the steps in this pathway, you can provide an optimal healing environment for pressure injuries/ulcers and reduce the risk of complications that could lead to delayed healing or worse.

Any advice included here needs to work in conjunction with your local protocols and your individual scope of practice.



Whenever a QR icon appears you can scan the correlating QR code at the bottom of the page.



To access helpful tools, scan the blue QR codes.



To dive deeper into subjects, scan the light blue QR codes.



The guidance provided in this book, is best understood in combination with the detailed guidance available to you in [The Wound Care Pathway](#). Whenever the book icon appears you can look up further information there.

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*The Wound Care Pathway*



## What is a pressure injury/ulcer?

A pressure injury – also referred to as a ‘pressure ulcer’ – is a localised damage to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear.<sup>1</sup>

### Most common cause

- Pressure on sacrum, heels or occiput
- Shear from improper transfers, sliding down in bed or medical devices<sup>2</sup>
- Friction caused by movement
- Microclimates leading to moisture associated skin damage

Pressure injuries can also be caused by poor perfusion, reduced sensation and inadequate nutrition.<sup>3</sup>

### Characteristics

You can expect pressure injuries to present themselves as either open ulcers or intact skin and may be painful to the person you are treating.<sup>4</sup>

## What does it look like?







Pressure injury on Trochanter



Pressure ulcer on a heel

## Step 1

How to **assess** a pressure injury/ulcer

- First, you should conduct a holistic patient assessment.  Your focus should be on risk factors such as mobility issues and incontinence.
  - Make your assessment of the pressure injury/ulcer using the NPIAP/EPUAP/PPIA classification system.<sup>5</sup> 
  - Conduct a comprehensive skin assessment. Look for changes in pigmentation, edema and changes in tissue consistency in the surrounding skin (induration). Also check for body- or localized temperature changes.<sup>6</sup>
  - Thoroughly inspect the skin for changes in colour as skin tone variance may affect presentation of early-stage pressure injuries. It may present as redness, darkening, lightening or grey/blue/purple tones. Skin may also feel tight, spongy or appear shiny.<sup>6</sup>
  - Determine why the pressure injury has occurred and identify contributing factors such as:
    - Organ failure – e.g. other organs are failing or poorly functioning, such as renal or heart
    - Pressure/shear – e.g. sitting up greater than 30 degrees, tight sheets, sliding down the bed or the chair
    - End of life – e.g. last days of living
  - Once the cause has been determined, take action to prevent further injury. Identify risk factors and work with all members of the care team to prevent further injury. Use risk assessment tool to identify risks.
  - Check for moisture associated skin damage (MASD), as it contributes to making the skin more vulnerable to shear and friction. It can be caused by urinary/faecal incontinence and/or localised moisture and temperature.
  - If you are dealing with a heel ulcer, then screen for peripheral arterial disease by conducting a pulse palpation or ABPI. (Ankle-Brachial Pressure Index).
  - Look at and address other contributing factors such as medication, nutrition, anemia, hydration and incontinence.
-  **Be aware** of skin changes at end of life (SCALE) as part of the holistic patient palliative care plan. One example are Kennedy ulcers : A dark sore that develops rapidly during the final stages of a person's life. Kennedy ulcers grow as skin breaks down as part of the dying process. Not everyone experiences these ulcers in their final days and hours, but they're not uncommon.<sup>7</sup>




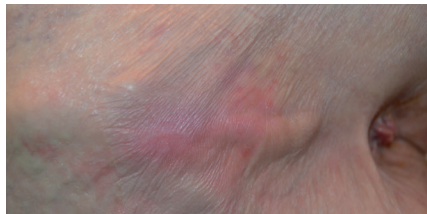
Scan to access  
the NPIAP/EPUAP/PPIA  
quick reference guide



Scan to learn more about  
skin changes at the end of life

## How to **diagnose** a pressure injury/ulcer

- First determine if you are dealing with a pressure injury or something else.
- Make your assessment of the skin or wound using the NPIAP/EPUAP/PPIA classification system.  See pictures below:



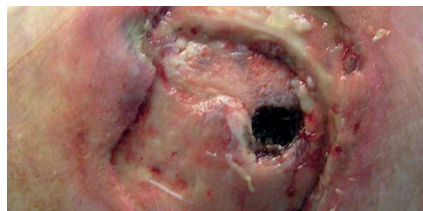
Stage 1



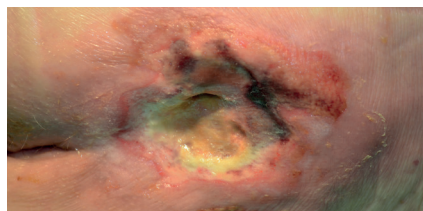
Stage 2



Stage 3



Stage 4






Unstageable Pressure Injury/Ulcer



Scan to access  
International NPUAP/EPUAP  
Pressure Ulcer Classification system

## Step 2

## How to develop a **treatment & care plan**

- Identify goals based on healability of the wound. Goals may include: decrease in wound size, alleviation of smell, decreased discharge and pain, etc.
- Goals should focus on prevention and the patient's quality of life, regardless of healability. Be aware that healability depends on both extrinsic factors (such as: medications, moisture, pressure/friction/shear, etc.) and on intrinsic factors (such as: posture, malnutrition, sensory impairment, unmanageable co-morbidities, etc.).<sup>8</sup>
- Consider ASSKING  (Assess, Skin Assessment, Surface, Keep Moving, Incontinence, Nutrition, Giving Information).
- Ensure continuity of patient care, considering both the environment and patient journey.
- Ensure good communication across the whole care team, including families and care givers, as clear and continuous communication between patient, care team and family is very important.
- Manage risk factors (i.e. mobility limitations, medical devices, perfusion and oxygenation, poor nutrition, increased skin moisture, temperature, incontinence) and maintain good skin health.
-  **Keep in mind:** goals for palliative care patients should focus on pain management and quality of life. 



Scan to learn more about  
ASSKING (page 6)




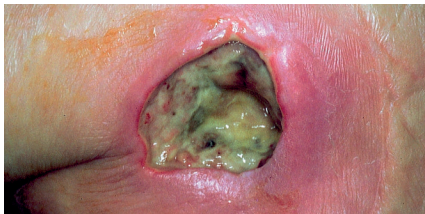
Scan to learn  
more about  
Pressure injuries  
in palliative care



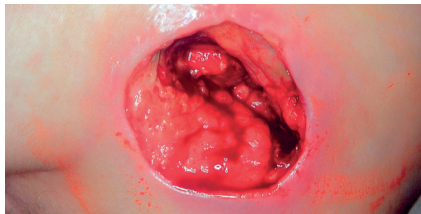
## Step 3

How to **manage** a pressure injury/ulcer



- First, you should clean the wound and surrounding skin with low-toxicity solutions such as potable/sterile water or sterile saline.
  - If infection is suspected, the use of antiseptic solutions for cleaning the wound and periwound is recommended.
-  **Remember:** Irrigation of the wound should be avoided, if you can not see where the irrigation solution is going. Compresses can be used if irrigation is not possible.
- Debride the wound to remove non-viable tissue unless there is stable eschar on a heel or an area of poor perfusion.



Before debridement



After debridement

- If you assess that you are dealing with an infection, proceed according to the IWII Infection Continuum & Management Guide. 
- Pay close attention to the wound's moisture/exudate balance. 
- Manage the skin micro-climate (moisture and heat).

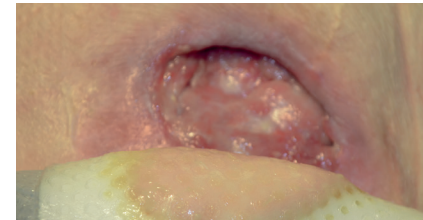


Scan to access  
The IWII Infection Continuum  
& Management Guide (page 56)

## Step 4

How to **choose dressing** & additional therapy


- To manage exudate, always choose a dressing that fills in the gap between the wound bed and dressing. 



Wound bed conforming dressing



Gelling fiber dressing for exudate management

- Make sure the dressing protects the periwound skin, and will be atraumatic upon removal.
  - The dressing should also be able to manage the moisture of intact skin – dry skin, MASD as well as faecal and urinary incontinence are significant risk factors often associated with pressure injury occurrence and re-occurrence.
-  **Be aware** that MASD as well as faecal and urinary incontinence are significant risk factors often associated with pressure injury occurrence and re-occurrence.



Scan to learn more about  
The role of dressings in pressure  
ulcer prevention (page 11)

## Step 5

How to **monitor** progression

- You should periodically re-assess risk factors or if there has been a change in medical status or situation.
- ⚠ **Be aware** that the risk of reoccurrence can increase with:
  - Immobility, planned immobility and restricted mobility
  - Loss of sensation
  - Medical device use and scarring
- Consider including equipment specialists on the care team, as it will help ensure that seating-, mobility- and bedding equipment are appropriate under each individual patient's circumstances.<sup>9</sup>
- Remember to monitor both wound and patient progression. Enforced bed rest can lead to many complications – in addition to pressure injuries – such as:
  - Depression
  - Cognitive deterioration
  - Loss of appetite, malnutrition, etc.

When monitoring patients, you should team up with the other members of the multi-disciplinary care team to watch for signs of injury and remove the pressure.

When to **refer or contact** a specialist

- ⚠ You should refer all Deep Tissue Injuries (DTI) and unstageable ulcers.
- ⚠ Refer if you are dealing with a pressure injury with a complex etiology.
- ⚠ Refer if a vascular assessment is required.
- ⚠ Always refer a heel ulcer for a vascular assessment and other specialists such as podiatry- or foot specialists.

# Glossary of pressure injury/ulcer terms

**Poor Perfusion** – occurs when blood flow to a specific part of your body is reduced.

**Moisture Associated Skin Damage (MASD)** – is caused by prolonged exposure to various sources of moisture, including perspiration, wound exudate, mucus, saliva, urine or stool and is characterized by inflammation of the skin, occurring with or without erosion or secondary cutaneous infection.

**Eschar** – is dead tissue that sheds or falls off from the skin and is typically tan, brown, or black, and may be crusty.

**Friction** – is the force of rubbing two surfaces against one another. Shear is a gravity force pushing down on the patient's body with resistance between the patient and the chair or bed.



For a glossary of general  
wound care terms consult  
[The Wound Care Pathway](#)



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Coloplast A/S, Høltedam 1  
3050 Humlebaek, Denmark