WOUND CARE TODAY

IN PARTNERSHIP WITH MICROWORLD Mölnlycke®

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PRESSURE INJURIES AND MICROWORLD:

THE ANIMATED WAY TO LEARN

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MICROWORLD

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LIVE Q&A

SEND IN YOUR QUESTIONS BY COMMENTING ON THE VIDEO

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LEARNING OBJECTIVES

At the end of this session, you will be able to:

- Understand how Microworld can offer an animated way to learn and enhanced learning experience
- Understand what a pressure injury is and the categories of damage that can occur
- Understand what factors make someone more likely to develop a pressure injury and why risk assessment is important
- Understand the essential components of pressure injury prevention and management
- Explore Microworld, download the app and register.

WHAT IS MICROWORLD?

Microworld can connect and educate professionals from around the world.

Completing the module:

- Counts towards revalidation
- Opens other learning areas of the site.

Complex content delivered through fun, engaging interactive animations, videos, games and illustrations.

IN THE CLASSROOM SO FAR...

Wound healing

Wound exudate

Wound Infection

M.O.I.S.T.

Incision Care

MEET SOME OF THE MICROWORLD CHARACTERS

CLASS 6: PRESSURE INJURIES

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CLASS 6: PRESSURE INJURIES

This class will take you through:

1. What a pressure injury is and categories of damage that can occur
2. What factors may make someone more likely to develop a pressure injury and why risk assessment is important
3. The essential components of pressure injury prevention and management.

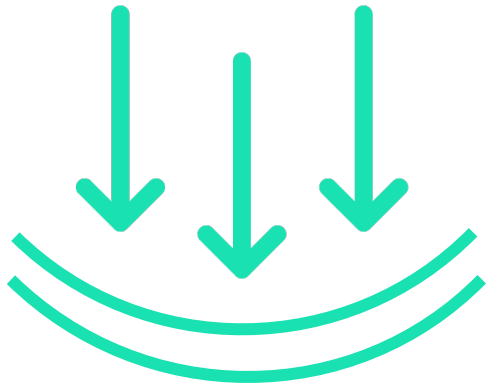
CLASS 6: PRESSURE INJURIES

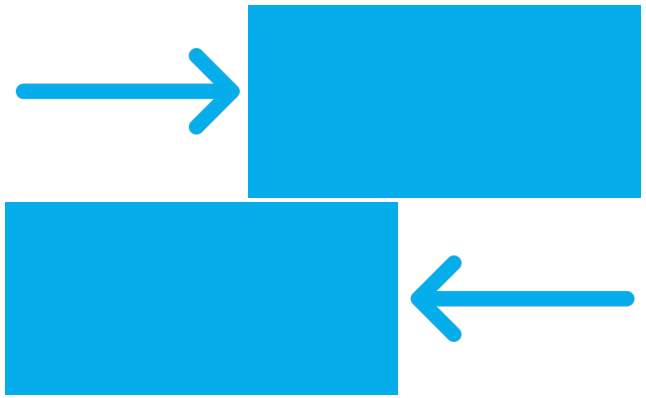
- Sometimes called pressure ulcers, decubitus ulcers, pressure sores or bed sores
- Caused when an area of skin and tissues below are damaged by being placed under pressure (including pressure associated with shear forces) sufficient to impair its blood supply (Young, 2017a)
- Pressure injuries are **painful**, **costly**, have a detrimental affect a patient's **quality of life**, increase the **risk of infection**, **prolong hospital stays** and can result in death (Young, 2021).

CAUSES OF PRESSURE INJURIES

Pressure injuries can occur as a results of two forces in action:

1. Direct force of sustained pressure which can cause tissue ischaemia in as little as two hours
2. Distortion of tissue as sustained pressure creates a shear force which stretches and tears the tiny arterioles and capillaries within the skin and underlying structures (Young, 2021).





PRESSURE INJURY CATEGORIES

Category 1	Intact skin will have localised areas of non-blanching erythema
Category 2	Partial-thickness skin loss with exposed dermis. It can be an open wound without depth, or a fluid filled blister where the epidermis has separated from the dermis
Category 3	Full-thickness skin loss, sometimes with visible adipose tissue present. There may also be some undermining or tunnelling, but tendons, muscle or bone are not exposed (EPUAP/NPIAP/PPPIA, 2019)
Category 4	Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage of bone in the ulcer
Unstageable	Significant depth, but the full extent of the tissue damage cannot be seen

PRESSURE INJURY CATEGORIES

Suspected deep tissue injury	Deep tissue injury can present as intact/non-intact skin with a localised area of persistent non-blanchable deep red/maroon/purple discoloration or epidermal separation revealing a dark wound bed or blood-filled blister (EPUAP/NPIAP/PPIA, 2019)
Device-related pressure injury	Defined as an ulcer that involves interaction with a device or object that is in direct or indirect contact with skin (EPUAP/NPIAP/PPPIA, 2019) A device-related pressure injury, which is caused by a device or object, is distinct from a pressure injury, which is caused primarily by body weight forces (Gefen et al, 2020)

POINTS FOR PRACTICE

Practical ways that can be used to test for blanching and non-blanching erythema:

- Apply light finger pressure to reddened area for a count of three
- If the area becomes white on removal and then returns to red, this is blanching erythema signifying healthy skin
- No blanching signifies non-blanching erythema, and this finding should be recorded as a category 1 pressure injury
- Clear plastic discs or key fobs are sometimes used to allow the skin to be observed more clearly
- If the skin is white beneath the plastic, it is healthy
- When examining areas that are difficult to see, such as heels, a mirror can be used to help.

PRESSURE INJURY PREVENTION AND MANAGEMENT

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PRESSURE INJURY PREVENTION AND MANAGEMENT

Key principles of prevention:

- Identify risk
- Prevent exposure to pressure and shear forces.

Aim of pressure injury management:

- Promote wound healing and alleviate pressure to prevent deterioration of the wound.

For prevention and management, the general health of the patient should be optimised where possible.

Pressure injury prevention and management can be split into several areas.

ASSKING

The acronym, '**ASSKING**', can be used to plan and implement care in clinical practice (Young, 2021):

Assess risk

Skin assessment and skin care

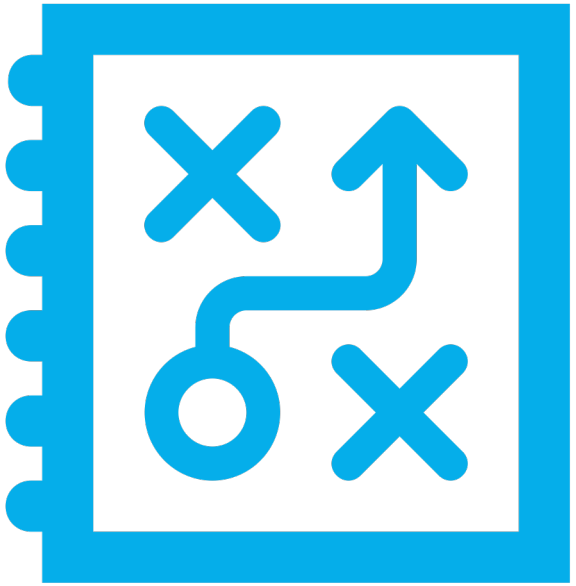
Surface

Keep moving

Incontinence and moisture

Nutrition and hydration

Giving information or getting help.



Assess risk

- Risk assessment to determine risk of pressure injury
- Clinical judgement and validated tool
- Plan, implement and evaluate care
- Appropriate resources and equipment.

(National Institute for Health and Care Excellence [NICE], 2014; 2015; EPUAP/NPIAP/PPPIA, 2019; Young and Fletcher 2019)

ASSESS RISK: RISK FACTORS

Intrinsic factors:

- Reduced mobility
- Incontinent
- Neuropathy or sensory impairment
- Inadequate nutrition/hydration
- Medication (e.g. corticosteroids)
- Infection
- Age (over 65 years)
- Neurological disorders (e.g. stroke)
- Circulatory disorders

(Coleman et al, 2013; Young, 2021)

ASSESS RISK: RISK FACTORS

Extrinsic factors:

- Pressure (e.g. due to restricted mobility and medical devices, casts or appliances)
- Shear (e.g. due to incorrect moving and handling techniques, friction and moisture)
- Temporary restricted movement, e.g. surgery or trauma, epidural/local anaesthetic.

(Coleman et al, 2013; Young, 2021)

SKIN ASSESSMENT AND SKIN CARE

- Undertake **frequent skin inspection** and identifying skin abnormalities (Fletcher, 2019)
- Incorporate skin inspection during **repositioning**, **changing clothes** or during **personal hygiene** (Young, 2021)
- Use both **visual** inspection and **touch** for texture and temperature, especially over bony prominences (Young, 2021)
- Observe carefully for **non-blanchable** (or persistent) erythema – or discoloration of the skin that does not turn white when pressed (Fletcher, 2019).

SKIN ASSESSMENT AND SKIN CARE

Skin tone:

- Skin tone can affect presentation of early-stage pressure injuries
- In dark skin tones, changes in skin colour should be noted by comparing it to the surrounding or corresponding area
- In this patient group therefore, other useful indications are:
  - Increased pain
  - Warmer/cooler skin over a bony prominence
  - Boggy feeling or hardened area.

(Dhoonmoon et al, 2021; Dhoonmoon et al, 2023)

SKIN ASSESSMENT AND SKIN CARE

Location:

- Pressure injuries most often occur on or near a bony prominence but not always (Gefen et al, 2022)
- **BEST SHOT**

Buttocks
Elbows/ears
Sacrum
Trochanters
Spine/shoulders
Heels
Occipital area/other
Toes.

(Fletcher, 2019)

Surface

- Support surfaces can include mattresses, chairs, cushions, foot/heel protection and offloading devices (removing pressure from the affected area) (Fletcher, 2020a)
- Divided into types:
  - **Active** (or dynamic)
  - **Reactive** (or static)
  - **Provide immersion** (Fletcher, 2020a; Lustig and Gefen, 2021; Young, 2021).

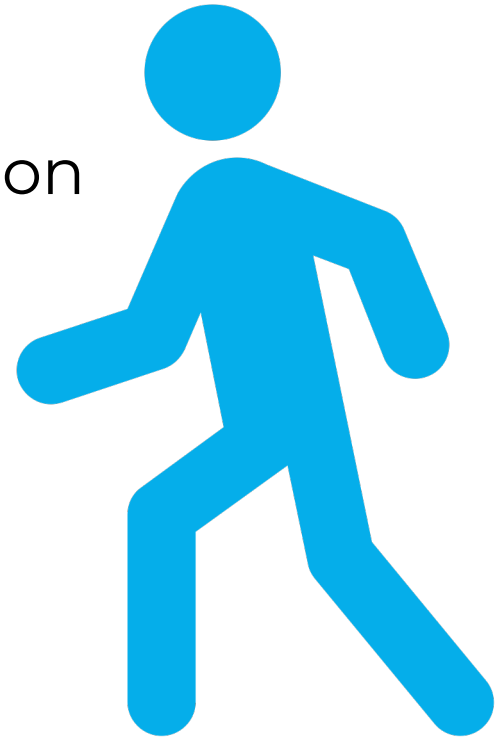
POINTS FOR PRACTICE

Support surface selection will depend on the patient's:

- Level of activity and mobility
- Specific requirements
- Weight and size
- Presence of existing pressure injury
- Level of risk
- Impact on manual handling
- Patient comfort
- Safety (e.g. increasing risk of falls) (Fletcher, 2020a).

KEEP MOVING

- It is important to **keep patients moving** and/or **repositioning** for pressure injury prevention
- Use manual handling aids to reduce shear and friction
- Encourage **self-repositioning**
- Utilise **30-degree tilt** and prone positions
- Determine **frequency** of repositioning and **record** on a repositioning chart
- Deliver information and education to patients and their family or carers.



(Fletcher, 2020b; Young, 2021)

Incontinence and moisture

- Manage incontinence and high volumes of moisture because:
  - Incontinence increases the risk of moisture-associated skin damage (Beeckman et al, 2015)
  - Although moisture is not a direct cause of pressure injuries, it can weaken the skin (Fletcher, 2020c; Young, 2017b)
- Assess skin damage accurately, because incontinence-associated dermatitis (IAD) is often mistaken for superficial category 2 or 3 pressure damage and vice versa (Young, 2021).

INCONTINENCE AND MOISTURE

Pressure injury versus incontinence-associated dermatitis

Pressure injuries	Incontinence-associated dermatitis
Occur over bony prominences or under medical devices	Occurs in urinary and/or faecal incontinence
Occur in areas exposed to pressure and/or shear	Has a distinctive pain
Are painful	Occurs in different locations
Have distinct wound edges and margins	Is diffuse with poorly defined edges
Can vary in presentation – from intact skin with non-blanchable erythema to full-thickness skin loss with secondary soft tissue infection	Can vary in appearance – from intact skin with erythema, sometimes with or without superficial/partial-thickness skin loss
May contain non-viable tissue	

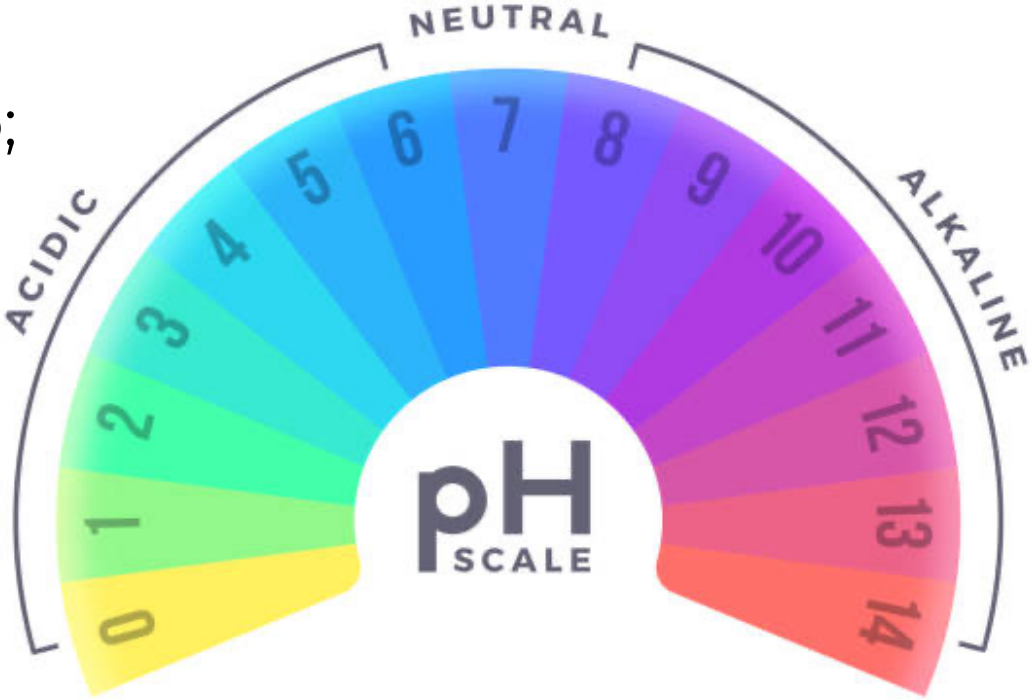
(Ousey et al, 2017)

Incontinence and moisture

Management

Structured skin care routine (Beeckman et al, 2015; Young, 2017b; EPUAP/NPIAP/PPPIA, 2019):

- Cleanse
- Protect
- Restore
- High absorbency products
- Moisture/wound exudate.



Nutrition and hydration

- Nutrition and hydration have a major role in skin health (Young, 2021)
- Assessment of nutrition forms part of the overall pressure injury risk assessment (Fletcher, 2020d)
- Use a validated screening tool (EPUAP/MPIAP/PPPIA, 2019) e.g. MUST in UK (Malnutrition Universal Screening Tool) (BAPEN, 2003)
- Chronic wound (e.g. wound, fistulae or sinus with high volumes of exudate/output) – matter of urgency.

POINTS FOR PRACTICE

- Food fortification and additional snacks should be the first-line choice
- Supplements can improve outcomes for patients with chronic wounds
- Clinical practice guidelines recommend the use of oral nutritional supplements containing macro and micronutrients for patients with existing pressure injury who are malnourished to improve wound healing
- Nurses play a key role.

(Medlin, 2012; EPUAP/NPIAP/PPPIA, 2019; Munoz et al, 2020; Bold, 2020)

GIVING INFORMATION OR GETTING HELP

- Information can help a patient understand their condition and therefore their treatment
- Be clear and focused on key messages
- Use everyday language
- Consider people's ability to learn
- Repeat information at different points in time
- Reinforce verbal information in writing.

(Fletcher, 2020e; Young, 2021)

WOUND MANAGEMENT

- Wound assessment and local wound management are like that of many other chronic wounds:
  - Identifying and treating background disease (comorbidities)
  - Identifying wound-related factors that may delay wound healing (e.g. presence of devitalised tissue) (Mahoney, 2020a)
- It is dependent on classification and depth of injury
- Always involve the patient, family and carer
- Plan, implement and evaluate wound healing
- Wound dressings promote a moist wound healing environment (Mahoney, 2020b).

WOUND MANAGEMENT

Local wound care

Local wound management includes:

- Management of wound bed tissue type
- Management of infection and/or biofilm
- Exudate management
- Pain management
- Managing large, more severe wounds
- Periwound skin management (Mahoney, 2020b).

CONCLUSIONS

- Pressure injuries are painful, costly and can seriously affect a patient's quality of life
- A pressure injury can be seen as intact skin or an open wound, the severity of which is described as categories
- Identifying those at most risk and implementing a plan for prevention and management into clinical practice is essential.

CONCLUSIONS

- If a pressure injury is present, a holistic wound assessment should be undertaken and a management plan developed in conjunction with the patient, family members and carers
- Wound dressings should create a moist wound healing environment to support the wound healing process.

AT THE END OF THE MODULE

- Repeat and recap on information
- Undertake a test to assess learning
- Monitor progress on the dashboard.

LEARNING CAN BE ALL FUN AND GAMES...

CALL FOR ACTION

- Explore Microworld for free
- Download the app or sign up online to start exploring
- Register at Microworld www.mymicroworld.online/ to undertake the modules.

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