



Pressure Ulcers

Information for patients
and caregivers



Pressure ulcers (also known as ‘pressure sores’ or ‘bed sores’) can have a serious impact on patients and their families. The good news is that with the correct care and equipment, most pressure ulcers can be prevented. This guide gives you some important information about pressure ulcers including:

- What are pressure ulcers?
- How dangerous are pressure ulcers?
- What causes pressure ulcers?
- Who is at risk?
- Where do pressure ulcers occur on the body?
- Skin changes to look out for
- Preventing pressure ulcers: How can you help?
- What to do if you develop a pressure ulcer
- Managing your pressure ulcer
- Who can you ask for more information about pressure ulcer prevention?

What are pressure ulcers?

A pressure ulcer is an area of damage that occurs to the skin and underlying tissue. Damage usually happens when sitting or lying in the same position for too long. This may appear minor (discoloured skin) but may develop into something more serious and can affect deeper tissue, including muscles and even bone.

Pressure ulcers are graded, or classified, against a standard scale in terms of their severity, with Category 1 pressure ulcers being an area of persistent redness on the skin which fails to disappear when lightly pressed and Category 4 being a severe

wound which can penetrate down as deeply as muscle, tendon and bone. *Please see pages 8–9 for details.*

Pressure ulcers used to be called ‘bed sores’ because they were associated with patients who lie in bed for long periods of time without changing their position.

Nowadays we understand that these wounds can occur in patients who sit in chairs or wheelchairs for long periods of time without repositioning. We now refer to them as pressure ulcers because they occur as a result of persistent, unrelieved pressure on the patient’s skin.

How dangerous are pressure ulcers?

Pressure ulcers will cause additional pain and suffering for most patients. They can slow down a patient's recovery and reduce their quality of life.

In the very worst cases patients can die as a consequence of developing a serious pressure ulcer because the damage to the skin can allow bacteria into the body which can lead to serious, life-threatening infections.

What causes pressure ulcers?

Two main things cause pressure ulcers:

- **Pressure**

The weight of the body pressing down on the skin. For example, sitting in a chair or lying in bed for a long period of time without changing position and relieving the pressure. Prolonged, unrelieved pressure effectively stops blood getting to the skin and muscles and without a regular blood supply the skin and muscles can begin to die resulting in a pressure ulcer.

- **Shear**

When layers of skin and muscle are forced to slide over one another, for example, when you slide down a bed or in a chair, or when you are pulled up and 'repositioned'.



Who is at risk?

Anybody can develop a pressure ulcer and the risk of developing one increases when you:

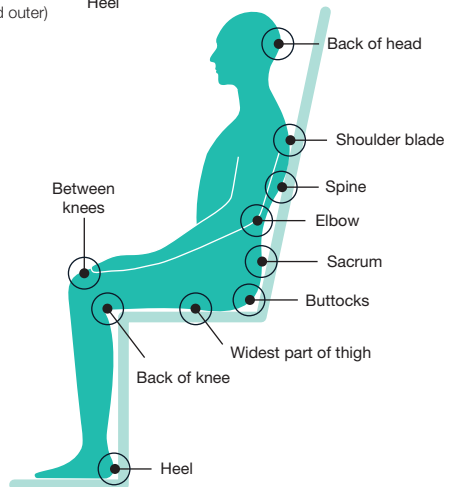
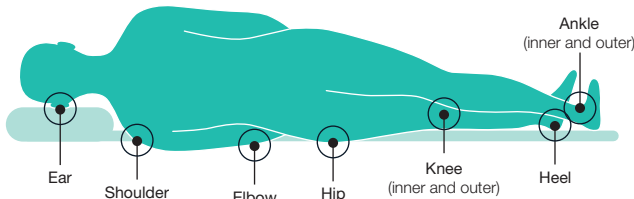
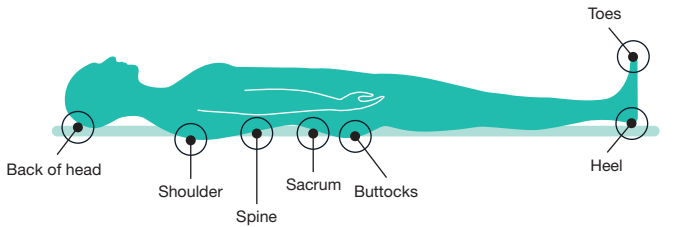
- Have problems moving and cannot change position in bed or in a chair without help
- Have poor circulation
- Have damp skin due to incontinence, sweating or a weeping wound
- Have had a pressure ulcer before
- Are not eating a balanced diet or having enough to drink
- Have poor sensation or loss of feeling in parts of your body (e.g. after a stroke or spinal injury)
- Are seriously ill or undergoing surgery
- Are elderly or very young
- Are obese or malnourished/underweight
- Have memory problems
- Do not have a suitable pressure relieving mattress or cushion when you are lying down or sitting

Where do pressure ulcers occur on the body?

Pressure ulcers normally occur over 'bony prominences' i.e. where the bones are closest to the skin surface such as the bottom, hips, heels, spine, etc.

The red areas marked on the figures below show where pressure ulcers are most likely to develop when lying and sitting.

Pressure ulcers can also occur under essential medical equipment that you might have to use, for example, an oxygen mask on your face, tubing across your face/round your ears or anti-embolic (compression) stockings on your legs.



Keep moving/changing position

Reducing or relieving pressure to the skin is one of the best ways to prevent pressure ulcers developing. Moving and changing position lets your blood flow to all areas of the skin, and reduces the chance of a pressure ulcer developing. If you are unable change position on your own, you will need help with this from caregivers/nursing staff.

Skin changes to look out for

Look out for discoloured skin, soreness and pain, particularly in areas where your bones are close to the skin, such as your bottom, hips and heels. Look specifically for:

- Persistent red patches on lighter skin that do not turn white when pressed with the thumb
- Purplish/bluish patches on all skin tones
- Localised swelling
- Blisters
- Shiny patches
- Warm or cool and/or firmer patches compared to surrounding skin
- Pain and discomfort
- Breaks to the skin, wounds, or skin loss

A good diet

If you are underweight, overweight or have a poor diet, you have a greater chance of developing a pressure ulcer. Therefore, a healthy balanced diet and drinking plenty of water is important for pressure ulcer prevention.

A healthy diet that includes plenty of vitamin C and Zinc is important to maintain healthy skin and may help prevent pressure ulcers developing. Ensuring that you drink enough fluids to prevent dehydration is also important.

Preventing pressure ulcers: How can you help?

The good news is that with the right care and equipment in place most pressure ulcers can be prevented. It is important that you do not rely solely on nursing staff and/or equipment to prevent you from getting a pressure ulcer and therefore it is always a good idea to do as much as you can to help reduce the risk of developing one of these wounds. This includes the following:

- Move and change position regularly (generally every 2–4 hours where possible) whilst seated or in bed
- Reduce or relieve pressure from the bony areas of the body by using specialist equipment (i.e. pressure redistributing mattresses and cushions) and/or changing your position

- Eat a healthy, well balanced diet and drink plenty of fluids
- Check your skin regularly for any changes – see ‘skin assessment’ below
- Keep your skin clean and dry

If you have a healthcare professional involved with your care they can advise you on:

- Correct sitting and lying positions to minimise pressure on your skin
- How to adjust sitting and lying positions
- How often you need to move or be repositioned
- Keeping good posture
- Which pressure relieving equipment should be used and how to use it

Pressure Relieving Equipment

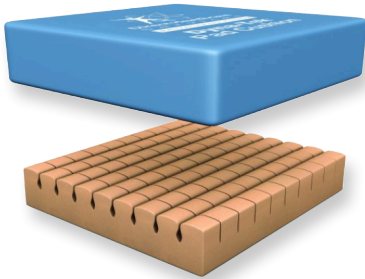
Specialist pressure relieving equipment, such as mattresses and cushions may be a necessary part of your care. It is important that you are given the right type of equipment to suit your needs.

Pressure relieving equipment will not eliminate the risk of developing a pressure ulcer, so it is essential that you continue to move and change position regularly even with the correct equipment in place.

Specialist equipment can include:

- **Foam mattresses:** These are specially designed to mould or contour around the body, reducing pressure and cushioning bony areas of the body

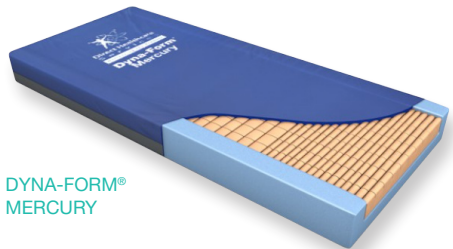
- **Alternating pressure air mattresses:** (also known as dynamic or electric mattresses)
The mattress is made up of air cells (tubes), which inflate and deflate at regular intervals to provide pressure relief over the length of the body every few minutes
- **Seat cushions** (made from foam, gel or air) These are designed to reduce and redistribute the pressure on the skin and tissues while sitting in a chair or wheelchair
- **Heel protectors** Designed to reduce and relieve pressure from the heel, they include inflatable boots, foam leg troughs or wedges, or pressure reducing silicone pads



DYNA-TEK® PAD CUSHION



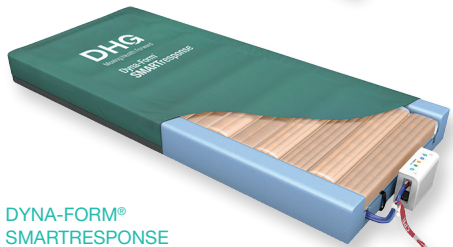
QUATTRO® ACUTE



DYNA-FORM®
MERCURY



DYNA-FORM®
MERCURY ADVANCE



DYNA-FORM®
SMARTRESPONSE

Skin assessment

A pressure ulcer can develop quickly, sometimes it only takes a few hours of remaining in one position, without moving, for pressure damage to occur on the skin and to the tissue underneath it.

To help you spot early signs of pressure damage and pressure ulcer development, where possible, you and/or your caregiver should undertake regular skin inspection on the bony areas of the body (bottom, hips, heels, spine, etc.). Using a handheld or compact mirror may help you see areas that are difficult to check, such as heels.

Skin care

Keep your skin clean and dry. Avoid alkaline soaps and cleansers, dry your skin gently and thoroughly pat dry. Moisturise dry skin.

Being incontinent increases the chances of developing a pressure ulcer. If not properly cleaned, the skin can become damaged and start to breakdown. Barrier creams and products that help to protect the skin when wet may be used, however these will not prevent pressure ulcers. Contact your local healthcare professional for advice on how to manage or treat incontinence.

What to do if you develop a pressure ulcer

If you develop, or you think you are developing a pressure ulcer, report your concerns to the person in charge of your care or your local health care professional.

They should perform a pressure ulcer risk assessment for you, undertake a full skin check and review the use of any specialist pressure relieving equipment (mattresses, cushions etc.) that you have or may need.

If you have a pressure ulcer they may also explain how severe your pressure ulcer is (i.e. which category it falls in to) and advise you on the type of treatment you will need in order to help heal the wound.

If your pressure ulcer is difficult to heal you may have to see a specialist wound care

nurse – often known as a Tissue Viability Nurse (TVN). TVNs specialise in all types of wounds and they will have lots of experience of dealing with pressure ulcers.

Managing your pressure ulcer

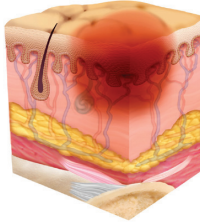
The treatment and management of your pressure ulcer will often be dictated by its severity, with 'superficial' Category 1 and 2 pressure ulcers often being relatively simple and comparatively quick to resolve.

More severe, Category 3 and 4 pressure ulcers will often be more complex and time consuming to heal.

You can help manage your pressure ulcer by positioning yourself off the affected area whenever possible, using the equipment you have been provided with, eating a balanced diet and performing regular skin checks to ensure no more pressure ulcers develop.

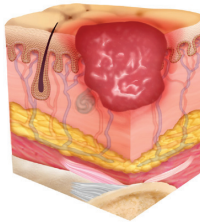
Pressure Ulcer Classification Guide*

Category/Stage 1: Non-blanchable Erythema



Intact skin with non-blanchable redness of a localized area usually over a bony prominence. 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. Category/Stage 1 may be difficult to detect in individuals with dark skin tones. May indicate 'at risk' individuals (a heralding sign of risk).

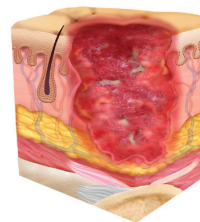
Category/Stage 2: Partial Thickness Skin Loss



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. Presents as a shiny or dry shallow ulcer without slough or bruising.* This Category/Stage should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation.

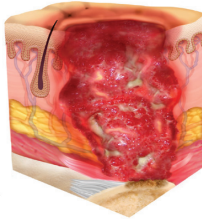
*Bruising indicates suspected deep tissue injury.

Category/Stage 3: Full Thickness Skin Loss



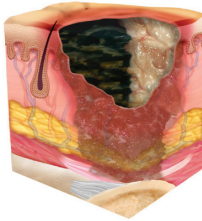
Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling. The depth of a Category/Stage 3 pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and Category/Stage 3 ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep Category/Stage 3 pressure ulcers. Bone/tendon is not visible or directly palpable.

Category/Stage 4: Full Thickness Tissue Loss



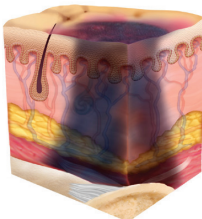
Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunneling. The depth of a Category/Stage 4 pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and these ulcers can be shallow. Category/Stage 4 ulcers 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: Depth Unknown



Full thickness tissue loss in which the base of the ulcer 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 Category/Stage, cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as 'the body's natural (biological) cover' and should not be removed.

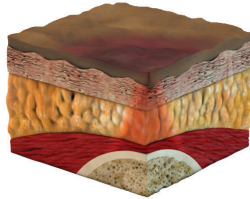
Suspected Deep Tissue Injury: Depth Unknown



Purple or maroon localized area of discolored 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 as compared to adjacent tissue. Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment.

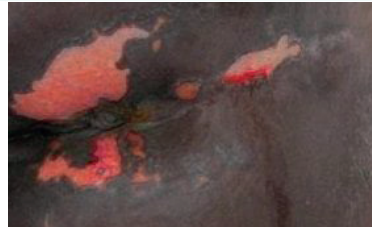
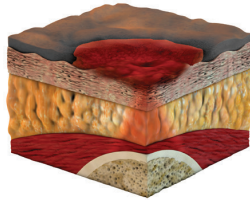
Pressure Ulcers in People with Dark Skin Tones**

Category/ Stage 1:



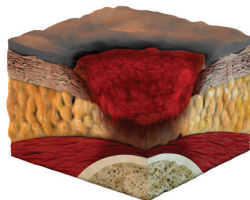
Intact skin with non-blanchable redness of a localised area usually over bony prominences. Darkly pigmented skin may not have visible blanching; its colour may differ from the surrounding area. The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue. Stage 1 pressure injuries may be difficult to detect in individuals with darkly pigmented skin tone. May indicate 'at risk' individuals (a heralding sign of risk).

Category/ Stage 2:



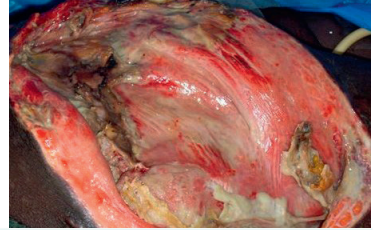
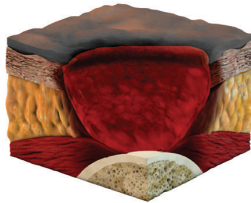
Partial thickness loss of dermis presenting as a shallow open ulcer with a red/pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising (bruising indicates suspected deep tissue injury). Stage 2 pressure injuries should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation.

Category/ Stage 3:



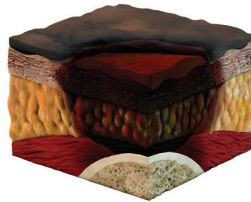
Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon or muscle are not exposed. Slough may be present but does not obscure depth of tissue loss. May include undermining and tunnelling. The depth of Stage 3 pressure injuries varies by anatomical location. The bridge of nose, ear, 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.

Category/ Stage 4:



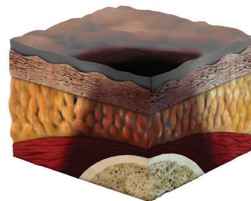
Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunnelling. The depth of a Stage 4 pressure injury varies by anatomical location. The bridge of nose, ear, occiput and malleolus do not have subcutaneous 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 without 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 individuals 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.

Who can you ask for more information about pressure ulcer prevention and management?

If you have any concerns or specific questions about your personal circumstances, please seek advice from your local healthcare professional and/or the team in charge of your care.

Remember...

Prevention is better than cure!

#poweringPUprevention

#StopPressureUlcers

#lovegreatskin

#StopThePressure

#aSSKINg

WWW.DHG-HEALTHCARE.COM

Useful links:

React to Red

www.reactoredskin.co.uk/carers

Stop the Pressure

nhs.stopthepressure.co.uk/patients.html

www.nationalwoundcarestrategy.net

Your Turn

www.your-turn.org.uk/

Love Great Skin

<https://lovegreatskin.co.uk>

Wound Care Today

www.woundcare-today.com/learning-zone/pressure-area-care/details

*INTERNATIONAL NPUAP/EPUAP PRESSURE ULCER CLASSIFICATION SYSTEM. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance, Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. 2014. Emily Haesler (Ed). Cambridge Media: Osbourne Park, WA. © NPUAP/EPUAP/PPPIA

**Text adapted from: International NPUAP/EPUAP Pressure Ulcer Classification System (2009, 2014) published in National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP), Pan Pacific Pressure Injury Alliance (PPPIA), Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. 2014: Emily Haesler (Ed.) Cambridge Media: Osborne Park, WA. 3D graphics: Owned by PPPIA. Photos: All photos courtesy Dr Keryln Carville, used with permission.

DHG

Moving Health Forward



DHG Withey Court, Western Industrial Estate, Caerphilly, United Kingdom, CF83 1BF
T: +44 (0) 800 043 0881 F: +44 (0) 845 459 9832 E: info@directhealthcaregroup.com