Pressure Injuries and Pressure Care

Script

Contents
Segment 1: What is a pressure injury? .................................................................2
Segment 2: Anatomy of the Skin .........................................................................4
Segment 3: How Do Pressure Injuries Occur? .........................................................6
Segment 4: Risk and Assessment Tools ...............................................................8
Segment 5: Assessment .......................................................................................10
Segment 6: Prevention ......................................................................................12
Segment 7: Your Role .......................................................................................15
Segment 8: Stages of Pressure Injuries ...............................................................17
Segment 9: What To Look For ...........................................................................19

Please Note: Script may vary slightly from the recording.
Segment 1: What is a pressure injury?
In this segment, I will discuss what is a pressure injury and how you will know what to look for, how to prevent them and your role in prevention.

Slide 3 What is a pressure injury?
The New Zealand Wound Care Society describes a pressure injury as a ‘localised injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, shear, or a combination of these factors.’

Slide 4 What causes a Pressure injury
Well it is when an area of the skin that becomes damaged from unrelieved pressure, poor blood flow or chafing and rubbing of the skin.

Slide 5 What will the skin look like.
Well it may appear as a red area; however, it could also look blue or purple in darker skin. Another think you may notice is the skin in the pressure injury area doesn’t blanch. This means if you press it with your finger it does not go white.

Slide 6 What will it look like?
There may also be a break in the skin such as a blister, which may contain blood, or bruise, crack, graze or scrape. So, you can see there are many signs to look for. Your job is to prevent this happening at all.

Slide 7 What happens under the skin?
A pressure injury can be very deceiving as it may not look anything more than a red area but there may be more serious damage under the skin. What it means is a big cavity may be forming. If this happens it is very serious and may take a long time to heal.

Slide 8 Can they be prevented
Many pressure injuries are definitely preventable. Good nursing care prevents them.

Slide 9 What are pressure injuries the result of?
They occur because a person has been left sitting or lying in one position or pressed against something firm that it happens. It can be a sign of neglect or even abuse.

Slide 10 Can it be called something else?
Pressure injuries are also sometimes known as bed sores, pressure sores, pressure areas or pressure ulcers. However today they are more commonly called pressure injuries and they are an injury to the skin and the tissues below it.

Slide 11 How long do they take to develop?
These can develop in a matter of hours. They can develop really quickly which is why you need to make sure people are turned or moved at least every 2 hours.

Slide 12 How will you know a pressure injury is developing?
The first indication you will see will be a change in the skin colour. There will also be pain or discomfort present. It is rare for them to take days to develop so it is up to you to make sure you prevent them from happening in the first place.

Slide 13 Your role in prevention
The reason they occur as I said before, is because they have been sitting or lying in one position for an extended period. So, to prevent them from occurring in the first place you need to ensure you relieve the pressure regularly,
skin can be damaged. You do this by following the care plan or Turn Chart, usually not less than two hourly, or stand them up from their chair or move the chair pad they are sitting on. It is not hard to prevent.

**Slide 14 What degree of damage can occur?**

Well the degree of damage will vary but can range in severity from a blister to a deep open wound.

**Slide 15 Grades of Pressure Injuries**

You will know the degree of damage by the grade of the pressure injury which are Stage I through to Stage IV, but it will talk about these in a later segment.
Segment 2: Anatomy of the Skin

Slide 1 Index

In this segment, I will discuss the skin, what it consists of and its role. For more in-depth knowledge of the skin go to Aging Process – Skin in the topics.

Slide 2 The skin

The skin is actually the largest organ of your body.

Slide 3 Role of the skin

It is the outer covering that protects your inside parts from the elements and from viruses and bacteria. The skin is also necessary for heat regulation, sensation so you can feel and also for making vitamin D which is really important for the body as it absorbs calcium and helps in bone growth.

Slide 4 Layers of the skin

While the dermis and epidermis are the two main layers and make up the cutaneous layer, we cannot forget about the subcutaneous layer, which is under the dermis and epidermis, plays. So, the skin has three main layers, called the epidermis and the dermis and the subcutaneous layer.

Slide 5 Epidermis

This tough layer of cells is the outermost layer of skin. It gets its toughness from a protein called keratin. The epidermis has five layers. Under the 5 layers the cells are at various stages of development from new cells till they finally reach the surface where they shed the dead flat skin cells. This takes approximately 2 weeks.

Slide 6 The epidermis

If you look at your own body you will see the outer layer of your skin, varies in thickness depending on the type of skin and where on the body it is found.

Slide 7 Examples of Skin thickness

For example, the epidermis on our eyelids is very thin, in fact the thinnest on the body being only 0.05mm thick. This is because it has very little dermis, the second layer or sub-cutaneous fat. Now the epidermis on our palms and the soles of our feet is much thicker being 1.5mm thick. This is because the skin has two different roles in protecting the body.

Slide 8 Dermis:

Underneath the epidermis is a lower layer of the skin known as the dermis. This section contains collagen and elastic fibres that give strength to the skin. It also is where the blood vessels and nerves live.

Slide 9 Dermis

Now the dermis is more than 10 times thicker than the epidermis and also varies in thickness from one part of the body to another. It is the area responsible for giving us the sensations of pain, itch and temperature. Together the epidermis and dermis form the cutaneous layer.

Slide 10 Subcutaneous Layer

Now under the cutaneous layer, which you now know is the epidermis and dermis, is another layer that is important which is the subcutaneous layer. This holds most of the body’s fat. This also varies in thickness from one person to another as you know. It also holds larger blood vessels as well.

Slide 11 Skin over joints
However, the subcutaneous layer is much think over joint as obviously if there was a lot of fat around the joints, it would be more difficult to bend them. Creases form over joints because the skin always folds the same way as the joints bend. The skin is thinner in those areas and is firmly attached to the underlying structures (muscles and bones) by connective tissue.
Segment 3: How Do Pressure Injuries Occur?

Slide 1 Index

In this segment, I will talk about causes of pressure injuries and how they occur and the common places they can occur on the body.

Slide 2 Pressure injury causes.

The causes of pressure injuries can be grouped into three main themes. They are prolonged unrelieved pressure, shearing and friction.

Slide 3 Prolonged unrelieved pressure

This speaks for itself. It means a pressure injury can occur where the weight of the body can squash the skin and tissues causing damage. The pressure prevents blood from flowing through the vessels in the dermis and subcutaneous areas. If the blood cannot flow to the area, cell death will occur and a sore will result.

Slide 4 Examples of Prolonged pressure

This can happen very easily when someone is sitting or lying in one position for a long period which is why you need to turn a person while in bed if they cannot do it themselves, or help them to stand from a chair if they cannot get out of chair on their own.

Slide 5 Shearing

Shearing is different to prolonged pressure though and can occur when the skin moves one way and the bone underneath it moves another way. This may also damage/distort the blood vessels in this layer. It is different to friction alone as you are adding gravity. This is very common in older people who do not because there is a loss of subcutaneous tissue to connect the skin to the muscle and bone.

Slide 6 Example of Shearing

For you, an example would be when you sit, then slide down the chair and slouch. The skin on your back may remain still against the back of the chair, while your spine moves downwards.

For a person in your care, if they slide down the bed on the sheets or if you try to drag them up the bed without using a sliding sheet, you can shear the skin on their bottom or other bony prominence and remove the skin.

Slide 7 Friction

Now friction occurs when two surfaces rub together causing a partial thickness skin injury – like a graze.

Slide 8 Example of Friction

This can happen when the skin rubs chair. It can occur when a person is lying in bed and they keep moving up and down on the sheets so the skin ‘grazes’ off the bone.

Slide 9 Contributing Factors

Although moisture on the skin does not directly cause pressure ulcers, it softens or macerates the skin, making it more susceptible to damage from friction or shearing so keeping the skin free of moisture is important. Macerate means to become soft and separated or to waste away.

Equally, when skin loses its moisture it becomes dry, flaky and less flexible. This can also make pressure injuries more likely.

So, looking after a person’s skin is really important. Not allowing a person skin to become over moist is important as is, applying moisturising cream to prevent skin from becoming over dry.
Slide 10 Common areas for pressure injuries

Common places for pressure injuries include buttocks, heels, inner side of knees, and elbows. However, it is important to remember that any area where the skin is close to the bone, these types of injuries can occur. A pressure injury can develop on any soft tissue under prolonged pressure in as little as one to two hours.

Slide 11 Sites for Pressure injuries

You will usually find a pressure injury will occur over bony areas as I mentioned in the previous slide, especially heels, buttocks and toes. They can also occur under plaster casts and splints or braces as well as around medical equipment such as IV lines, tubes, monitoring equipment, catheters, masks, and drains, etc.

So being aware what pressure injuries are and how they occur is really important when providing care for people.
Segment 4: Risk and Assessment Tools

Slide 1 Index

In this segment I will look at who is at risk and the assessment tools that are available and may be used in your organisation.

Slide 2 Who is at risk

So who is at risk of developing a pressure injury? Well a pressure injury tend to occur most frequently in the elderly, the frail and those with limited mobility. For example a person with a spinal cord injury or injuries that require a significant amount of lying down or sitting are more at risk of have a part or parts of the body resting against an object or firm surface.

To ascertain the risk, a registered nurse (RN) will use an assessment tool to find the actual risk a person has so the care can be designed accordingly to prevent a pressure injury occurring.

Slide 3 Assessment Tools

While there are a variety of tools available, the most common are the Braden Scale, Norton Scale or Waterlow Score. For children the Glamorgan Scale is used.

Slide 4 Braden scale

The Braden Scale is scoring system many Registered Nurses use to assess or evaluate the risk a person has of developing a pressure injury. In the Braden Scale has 6 Categories that are assessed and include sensory perception, moisture, activity,

Slide 5 Braden Scale

It also looks at mobility, nutrition, and friction/shear.

Slide 6 Braden Scale Score

Once each category has been assessed a total score will be given. This can range from 6 to 23. The lower the score, the higher risk a person is of getting a pressure injury. Each level of risk will indicate the intervention strategies that should be used to for you to implement to ensure a person does not get a pressure injury.

Slide 7 Norton Scale categories

The Norton Scale is similar to the Braden Scale and has 5 levels of risk. These are Physical condition, Mental state and activity level.

Slide 8 Norton Scale categories

It also looks at mobility and continence.

Slide 9 Norton scale score

Once each areas is assessed they will be scored from 1-4 in each level. Then the person is given a total score which will indicate the level of risk a person has in developing a pressure injury.

Slide 10 Waterlow Score

The Waterlow Score is a very simple tool used for pressure injury assessment along with the treatment for each level. It comes as an app for mobile phones or as a card. The assessed areas includes body weight for height, skin type visual areas, sex and age.

Slide 11 Waterlow score
It also includes a nutritional screening tool, continence and mobility.

**Slide 12 Waterlow score**

It also highlights people with special risks including tissue malnutrition, neurological deficit and major surgery or trauma a person may have undergone. The other side of the card gives options for treatment.

While this information helps, a registered nurse do an assessment, if you work in home care you will be required to pass on the correct information to the registered nurse so having an understanding or knowing such a tool is available will certainly help them with the information you give to do an accurate assessment.

**Slide 13 Glamorgan scale for children**

For children, the Glamorgan scale is often used. This simple assessment basically looks at mobility and equipment that will put a child at risk.
Segment 5: Assessment

Slide 1 Index Assessment

While there are a number of risk assessment tools as I have mentioned in previous segment, you cannot get away from doing a sound assessment. These assessments are vital to for the care of a person and to the prevention of pressure injuries occurring in the first place or if they have occurred. As you are the eyes for the Registered Nurse you need to know the things that can lead to a pressure injury occurring so in this segment I will outline the things the nurse will look for when assessing a person regardless to the tool used.

Slide 2 Assessment indicators

When doing an assessment, it has to be thorough so the first place you start is the clinical history. This will include the history of their current illness or condition and also it may include past health related issues as these could impact on their present state.

The next thing to look at is their skin and do a full skin assessment. This will include the integrity of the skin which means is it intact and undamaged. If it is not intact, then what blemishes, wounds or skin tears do they have. You would also need to look at the colour of the skin. Is it normal, pale or patchy in colour? Is it hot or cold, dry or moist in any particular areas?

What is the person’s mobility like? Are they active and mobile or do they need assistance to move? Do they roll over on their own or just stay in one place? This is a key indicator for an at-risk person.

Slide 3 Assessment Indicators

A nutritional assessment is important to. You need to notice how much they eat and what they eat or leave on their plate. You may have a nutritional assessment in your organisation that will give you prompts or you could watch the nutrition topic on Care Training Online.

Whether they are continent or not is a key predictor as well so need to be accurately assessed. If they are incontinent it could be that their skin becomes moist and soggy which is going to increase the risk of a pressure injury.

Assessing their cognitive assessment which is essentially looking at their memory which can contribute to their risk.

Slide 4 Assessment Indicators

You also need to look at external factors that could contribute to a pressure injury or at least make a person more likely to develop a pressure injury. Does the person have to stay, or spend long periods of time, in bed? If this is the case are they able to move in the bed or are reliant on you to assist them to turn.

Do they spend a lot of time being in a wheelchair? It could be because of their frailty or it could be that they are paralysed by injury. Sitting for long periods in one position will increase their risk so the type of chair they sit in is important too.

Do they have difficulty moving around so spend long periods of time in an armchair? Don’t think that because it is padded they will be ok. They won’t. Try sitting still in any chair for 5 minutes without moving and see how it feels.

Slide 5 Assessment Indicators

Have they had or do they have a serious illness that reduces mobility. It could be something like COPD which is a progressive condition or it could be a stroke where there is the possibility of them being able to become mobile again with rehabilitation.

Their age will make them more susceptible especially being elderly or frail.

Is there a condition that is affecting their skin sensation? It could be a result of a stroke, spinal injury or diabetes?
Slide 6 Assessment Indicators

Do they have poor blood flow which could be the result of heart disease or diabetes? This certainly increases their risk.

Have they had a pressure injury in the past? This will make the same area of skin more at risk of further injury.

If the person has moist or damp skin be it from continence or poor care when a person is not dried properly after washing or excessive sweating. This will make the skin easier to become damaged.

Slide 7 Assessment Indicators

A person’s weight will also have an influence on pressure injuries occurring. Being under or over weight will make a person more at risk.

Diet also affects a person’s risk. Not eating a balanced diet impacts on health dramatically. If a person lives at home and has difficulty preparing meals and don’t eat properly, then they are likely to become undernourished or malnourished. To understand more on nutrition, go to the Nutrition topic.

Likewise, dehydration can severely impact on a person as well. It is not only the skin that becomes dry and easily damaged, the whole body is affected so not having enough to drink can be very dangerous for a person. To understand more on hydration, go to the hydration topic.

Slide 8 Assessment Medical Equipment

Having medical equipment attached can contribute to a pressure injury occurring as well. While they may be necessary for a person’s survival, you need to be aware that proper care is required. Things like leaving a person sitting in a hoist sling, or sitting on a rubber ring. Having a nasogastric tube in place can also cause a pressure injury.

Slide 9 Assessment Medical Equipment

Having continuous oxygen equipment or a tracheostomy can also result in a pressure injury occurring. Likewise, plaster casts can cause a pressure injury.

Slide 10 Assessment – medical Equipment

Anti-embolic stockings that are too tight or a Foley catheter in situ could contribute to a pressure injury. Even wearing a wrist band have been known to cause a pressure injury. The examples are not all the medical equipment that could cause a pressure injury so you need to know that even medical devices can cause harm to a person over time and it is important to take particular care when nursing people who use medical devices as well.
How can pressure injuries be prevented? As you all know, prevention is better than a cure. Preventing a pressure injury in the first place is certainly what you need to aim for. Many years ago, when I did my nursing training, we were told pressure injuries are the result of poor nursing. I have never forgotten that and to this day, I believe that is correct. For the most part pressures injuries can be prevented so now I will talk about how you can prevent a pressure injury from occurring planning care, devices that can help prevent pressure injuries and how they work and finally some important notes to understand in the prevention of pressure injuries.

Slide 2 Planning care

When planning care and support for a person the risk they have of developing a pressure injury will be assessed by the registered nurse who will develop a plan. This has to be the first thing that is done.

Slide 3 What will a plan include?

Well the care plan may include things like equipment you can use for prevention. There also may be specific aids or nursing interventions for you to follow.

Slide 4 Cares

The plan will include such things as timeframes for moving a person and a schedule for completing skin checks. You need to follow the plan as it is there for a reason and should be clearly documented in a way you can understand.

So, when you move or turn a person you record the time you did this. Commonly it is 2 hourly so if this is in the plan then you must do it. At the same time, you also need to do skin check. This means you observe and report immediately any areas of the skin that are red or have changed in appearance or any breaks in the skin. Also on the chart you may be required to record their food and fluid intake and output. A good way to give the persons skin a break from sitting is to take them to the toilet. All these little things help prevent a pressure injury from developing.

Slide 5 Pressure Relieving Aids

The plan may also have pressure relieving aids like a special mattress for them to lie on. It could be a memory foam or it could be an air mattress that alternates pressure. It could be that a wedge or a particular cushion is used to help keep a person in position. It is important that whatever equipment or aid is to be used, you must know how to use them so ensure you receive instruction on how these are used. I will talk about these in more detail in later slides.

Slide 6 Pressure Relieving Aids

When a person is lying in bed and not moving much if at all, special aids may be used to help relieve pressure on at risk areas. This could include heel protection devices that lift the heel completely from rubbing on the sheets so the weight is distributed off the leg along the calf. Typically, this could be the use of a pillow between their legs or under their legs.

Some rules about using pillows though. Always place the pillow long ways between or under their legs and also use the thinnest pillow you can find. It is not that comfortable for long periods if you have a big thick pillow between your legs. Try it sometime yourself and see how uncomfortable it can be?

You also need to apply this rule when using a foot stool. Ensure the leg is fully supported with no gaps that can be uncomfortable for the person. If using a pillow, make sure it is placed long ways under the legs so the whole leg is supported. Placing legs across a pillow could cause a clot in the leg, as the circulation can be interrupted using the short edge.

Bed cradles devices that prevent pressure from bedding on the legs.
Keep **bed clothing loose** over the lower limbs. While you may think

**Slide 7 Categories of products available**

There are two main products available and these are known as reactive or static and active or alternating pressure products.

**Slide 8 What Do Reactive Surface Products Do?**

Reactive products mean that the pressure is distributed evenly because the product is designed to mould around the body, spreading the patients weight and alleviating the pressures especially to the body areas where pressure injuries commonly occur. They maintain a constant low pressure.

**Slide 9 Examples of Reactive Surface Products**

There are a range of different mattresses and products available but mattresses are commonly made of **memory foam squares or slats** that are covered with a special cover. The cover is really important to as using the wrong cover can actually cause a pressure injury rather than prevent one.

**Gel** is another product that is reactive or static and is used to relieve pressure. These are more commonly used for cushions as a gel mattress is very heavy. However sometimes gel can be used for heel, knee or elbow protection. You may have seen products for gel protection for other uses like bicycle seats or foot pads for inserting in shoes. There are many ways in which gel can be used to prevent trauma to the body.

**Static air inflated devices** are also sometimes used a mattress or air filled boot. You may have seen gloves blown up and used to relieve pressure as well.

**Sheepskins elbow or heel pads** are sometimes used to provide a soft surface for the heel or elbow nestle in.

**Slide 10 Active Surface products**

Another type of mattress is and **Active** or alternating pressure mattress. These are similar to active surface products with the difference being the mattress is connected to a device that alternates the pressure while a person is lying on the mattress. The powered device periodically redistributes pressure between two cells by repeatedly loading and unloading the pressure to the body. These mattresses can be either a **memory foam or air**. This is a wonderful tool in the prevention of pressure injuries in a person who is lying in bed for extended periods.

**Slide 11 Important points**

However, the important thing is that a person must never be left in one position for an extended period. Even if a device is used the person must be turned. This is likely to be recorded on a turn chart. Do not become complacent and think that because a special piece of equipment or aid is used it will stop a pressure injury from occurring. It won’t. It is just an aid. Nothing replaces moving the person from side to side, or sit to stand to get the blood circulating. Remember. A pressure injury usually result from poor nursing.

Also, if a person is **malnourished and dehydrated** they will be more at risk of pressure injuries developing so you must make sure that a person gets adequate nutrition. If they need to have a supplement because they are not eating well, then this is what they need so make sure they get it.

Likewise, they must have adequate fluid as well. The person may need to be on a fluid balance chart where their intake and output is recorded. If this is part of the care plan, then ensure you record all fluid in and out.

**Slide Important Points**

You also need to take special care when moving a person up the bed if they have slipped down. Under no circumstances should you **drag a person** up the bed either on your own or with two people as you can just shear the skin off a person’s back. Sliding sheets must be used to get a person up the bed. This has to be done with two people to cause as little harm to the person as possible, not to mention protecting your back.
Nor should you try and lift a person on your own from chair to chair or chair to bed. There are lifting belts to help as well as hoists to help you.

Another important point is that there is not a one size fits all for the prevention of pressure injuries occurring. While one device will work well for a person, it may not for another. For example, a sheepskin boot may do wonders for one person while for another it does not. Nothing replaces individual assessment and good nursing care practices.
When planning care and support for a person at risk of pressure injuries, the registered nurse will develop a plan as I said in the last slide so your role is to follow the plan that has been devised. While I explained the aids and appliances that may be used and the important notes you need to know in this slide I will expand further on your role and how you can prevent pressure injuries from occurring. I will also discuss the most at risk parts of the body they are likely to occur.

Your role is to follow the Care plan and clearly document what you have done, when you did it and what you have observed and report these to the Registered Nurse. It is really important that you follow the instructions written so that a pressure injury can be avoided or if present, promote healing.

So, what are you going to observe, record and report? Well it is important that you check the person’s skin regularly, and report any red areas that have developed or changed in appearance. If you do this each time you do care, so any interventions can be devised early. Also check if the skin moist from sweat or incontinence as this can contribute to a pressure injury? While moisture does not cause a pressure injury, moisture softens and macerates the skin making it more susceptible to shearing and friction causing a pressure injury.

Equally, when skin loses its moisture it becomes dry, flaky and less flexible. This can also make pressure injuries more likely which is why you need to ensure a person does not become dehydrated.

It is important to keep the skin clean and dry but be careful not to use harsh soaps on their skin. There are many soap free products around to use on sensitive skin. This will prevent the skin from becoming damaged from urine or sweat. Also by keeping the skin supple with moisturisers will help prevent the skin from becoming dry especially the legs, arms and back as this will protect the skin against damage. Using barrier creams to prevent the skin from becoming damaged through moisture will also help. However, it is important to be gentle and not rub too hard because you could actually rub some skin off and cause more damage. As people age, their skin can become more sensitive too so you must always take care to be gentle with their skin.

If a person spends a lot of time either in bed or sitting in a chair, will have a plan of care to move them. This is the most effective prevention against pressure injuries occurring. To ensure that a person is not left for extended periods sitting or lying, a Turn or Moving chart may be in place. If in bed you will need to rotate their position by turning them from side, to side and back so that the person is not lying in the one position for too long and record when you did this and to what position.

Likewise if a person cannot move them from a sitting position in a chair, then stand them up or move the pad or cushion they are sitting on. This will relieve the pressure.

The frequency for turning or moving is 2 hourly as this is the recommended time that will reduce risk. However, it could be more frequent. More often is good providing it does not cause the person too much pain. Just do not leave them for too long in one position.

There are a lot of pressure relieving aids available, which I talked about in the last slide so your registered nurse will recommend so of these products. If they are used you role is to know how to use them. However, because one of
these aids are used, it will not mean the person can be left sitting or lying in one position. These products are only an aid in the prevention. You need to know how to use these products effectively to reduce the risk of a pressure injury occurring so you need to receive instruction on how to use correctly.

Slide – Pressure Relieving Aids – examples

These were all discussed in the last slide but I will recap here so the equipment provided may include, special mattresses, or seating support cushions which were all covered in the previous slide. Sometime sheepskins may be used but that is rare these days as many other new products are around.

It could be boot or elbow protectors. These may be foam, fibre-filled, sheepskin or air filled boots or some other heel protection device.

It is also important to make sure the bedding is not too tight especially over the feet so a bed cradle may be in place to prevent this from happening.

Slide 8 – Fluid balance chart

It may be necessary to record all the fluid a person takes in or releases out so a Fluid Balance chart may be required. Dehydration must be prevented as it can make a person really unwell as well as damage the skin and increase the risk of pressure injury. You need to record everything they drink as well as all the fluid they pass out by either urine, faeces, sweating, diarrhoea or vomiting as the case may be.

Slide 9 Food intake chart

Being malnourished is another risk factor too. If a person loses weight and become emaciated then they will have no protection from pressure injury so you may need to record everything they eat on a special chart. This will include what they ate for their normal meal and what they refused. What supplements or between meals snacks they had. If a person is malnourished or has a pressure injury or wound they may be charted high protein dietary supplement to have with their meals, as a substitute for their meal or for in between meals. When a person is malnourished or dehydrated, no amount of external aids or appliances are going to prevent a pressure injury from occurring.

Slide 10 Common locations for pressure injuries

The areas you need to take particular attention to are those areas that have little fat or padding over the bone. These boney prominences, as they are known, need special care. The most common areas to take special care with are shoulder, elbows, sacral area.

Slide 11 Common locations for pressure injuries

Also, the inner or outer aspects of knees is another risk area and is why it is common to place a pillow between a person’s legs to stop their knees rubbing against each other. You also need to take particular attention to heels and inner and outer aspects of ankles.

By providing good nursing care as well as having good observation and documentation skills, you can save a person from a lot of harm and of course pain. Believe me, it is much easier to prevent a pressure injury than to try and heal one once it has occurred. On top of this, it is abuse and neglect and should never occur. Remember, when a pressure injury occurs, it is the result of poor nursing. Do not let these happen to anyone in your care.
Segment 8: Stages of Pressure Injuries

Slide 1 Index

In this segment, I will discuss the 4 stages of pressure area development and some important notes about pressure injuries you should know.

A pressure injury has 4 stages of development so now I will talk about the stages so you can understand the importance of nipping them in the bud so to speak and make sure they do not develop into something major. Remember a pressure injury is the results of intense or prolonged pressure to an area. While most occur over a bony prominence, they can also occur from a medical device that is insitu where there is constant pressure, moisture and rubbing or shearing.

Slide 2 Stage one

So, stage one you need to be pick up really early. You will do this by observing a **localised erythema or red area that does not blanch when you press it.** The skin at this stage is **intact.** Blanching means it will change colour and go paler or white. What this means there is red blood cells outside the blood vessels. For healthy people, if a reddened area is pressed, it will go white. This is called blanching and is normal. So, when you, a healthy person, have been sitting in one spot for a while, and you get a red area on your body, if you press in the middle, it will go white. It may look different in a person with a different skin colour, but you will definitely see a change. You may also see **changes in sensation, temperature, or firmness** on the areas as well which could be the before a non-blanchable area occurs.

Slide 3 Stage 2

This is where there is a **partial thickness of skin removed** and you can see the dermis which is the layer directly under the skin. It could be that it appears as a **blister so the** skin may be intact but there is fluid inside the blister. You will not see fat under it as it is still relatively superficial at this stage. Nor will you see granulation tissue, which is healing stage, slough or pus and there will not be a scab or evidence of any dead tissue at this stage.

This sort of pressure injury will occur in areas like the sacral area or heel where there is a lot of sheering with sliding up and down the bed or rubbing of the heel on the sheets. These can be very hard to heal as the person may continually roll over on their back and slide down the bed or keep moving their heel across the bed sheets causing ongoing damage.

Slide 4 Stage 3

This is when there is a **full thickness layer of skin missing** and you can see the **fatty tissue** which looks like yellow globules. There is **granulation tissue visible.**

Slide 5 Stage 3

The ulcer may **have rolled edges as well.** It is likely for you to see some **dead tissue, or slough,** as it is known, as well. There may also be some **tunnelling** which means it may be difficult to ascertain how deep the pressure injury or ulcer is. It does not mean that you can see underlying tissues like fascia, muscle, tendon, ligament, cartilage and/or bone.

Sometime when a pressure injury gets to this stage, it can be hidden by slough and scab which can hide the depth of this injury so they call this an unstageable pressure injury. This is because you do not know what is under the scab and slough.

Slide 6 Stage 4

This is a **very deep full thickness wound** that **extends down to the muscle, ligaments, tendons, fascia, cartilage and bone.** There may be **slough or pus** in the wound and dead tissue around this.
Slide 7 Stage 4

There could also be tunnelling as well which may make it difficult to ascertain just how large the wound is. There is also likely to be a lot of fluid or exudate as well in both stage 3 and 4.

Slide 8 Important Notes

Firstly, they can occur very quickly. If they are not picked up at stage one, they will take a very long time to heal. For healing to take place it needs to come from the bottom of the wound up so it may be necessary to keep the wound open to allow this process to take place.

Slide 9 Important Notes

A pressure ulcer will not heal while there is the presence of pus or sloughy tissue. Once all this is cleared away, and there is healthy pink granulation tissue, it can heal very quickly however to get a wound to this level, may take months.

Slide 10 Important Notes

Pressure injuries are very painful, very expensive to heal as they use a lot of expensive dressing and take a lot of nursing time. There is a high risk of infection as well.

Slide 11 Important Notes

Wound care and dressings are always done by a registered nurse – it is not the support workers roll to do so. When protecting a certain area of skin due to a pressure injury, it may compromise other areas by putting more weight or pressure on them. Always follow the Registered Nurse’s instructions.

Slide 12 Important Notes

Report if there is an increase in exudate or it has become more or unusually smelly or the dressing has come off to the Registered Nurse. Lastly for a pressure injury to occur can be the sign of neglect or abuse. Preventing them from occurring in the first place, by providing good sound nursing care, nutrition and hydration is the best thing you can do. Now let’s look at the stages of pressure injuries
Finally in this segment I will look at what you need to look for to be able to pick up a potential pressure injury.

Any skin that is dry and cracked is a risk of a pressure injury forming be wary if you see skin like this so keep the skin well hydrated with moisturiser.

If the skin is moist spongy this should alert you. If there are signs of maceration from lying in a soggy surface will also make the likelihood of a pressure injury occurring. Imagine this to be like marinating meat. When you do this you tenderise it. Well a moist spongy skin is going to more like macerate the skin,

Any reddened areas on the skin especially over bony prominences if a major alert so don’t allow people to lie for too long in one position for this to occur. It is not necessary to rub these areas. Just shifting a person off the area will allow the blood to circulate back into the area. Avoid rubbing them as you could find the skin would rub off especially if it is macerated from urine or perspiration.

Changes in colour of any sort, be it blue, white or read should be reported. Also if the skin appears hard, especially on heals, elbows or ankles, take particular notice of as well. hardness.

If there is a presence of pain then this is a warning sign. If a person winces, calls out or pulls their limb away, this is an indication that there is something amiss. It could be that at pressure injury is forming.

Finally if you put your hand on an area and it feels warm to touch in a particular areas then this can also be a sign. If you move your hand over it, it may be warm in one area and normal skin temperature in other areas. This is a sign of inflammation so keep alert to any changes in skin temperature.

As I have said many times, you are the eyes and ears for the Registered Nurse. We value you input so please if there are any changes in the skin or the persons behaviour, take note of it and report it. You could save a person from a pressure injury or some other condition