Healing children. Protecting childhood.

Prevention of Wounds and Simple Tips for Healing

Michelle Urban, PT, MHS, WCC

July 21, 2018

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Objectives

Understand what causes skin to break down

Name five tips to prevent skin breakdown

Know simple treatments for skin breakdown

Know when you need to seek a physician’s advice





Skin Care

Keep skin clean and dry

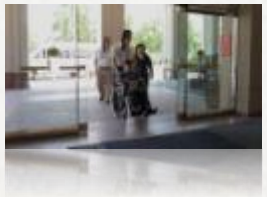
Moisturize with good quality lotion

Avoid rubbing or scrubbing hard

Do not use talc powder or harsh soaps

Try bathing every other day as more frequently dries skin out

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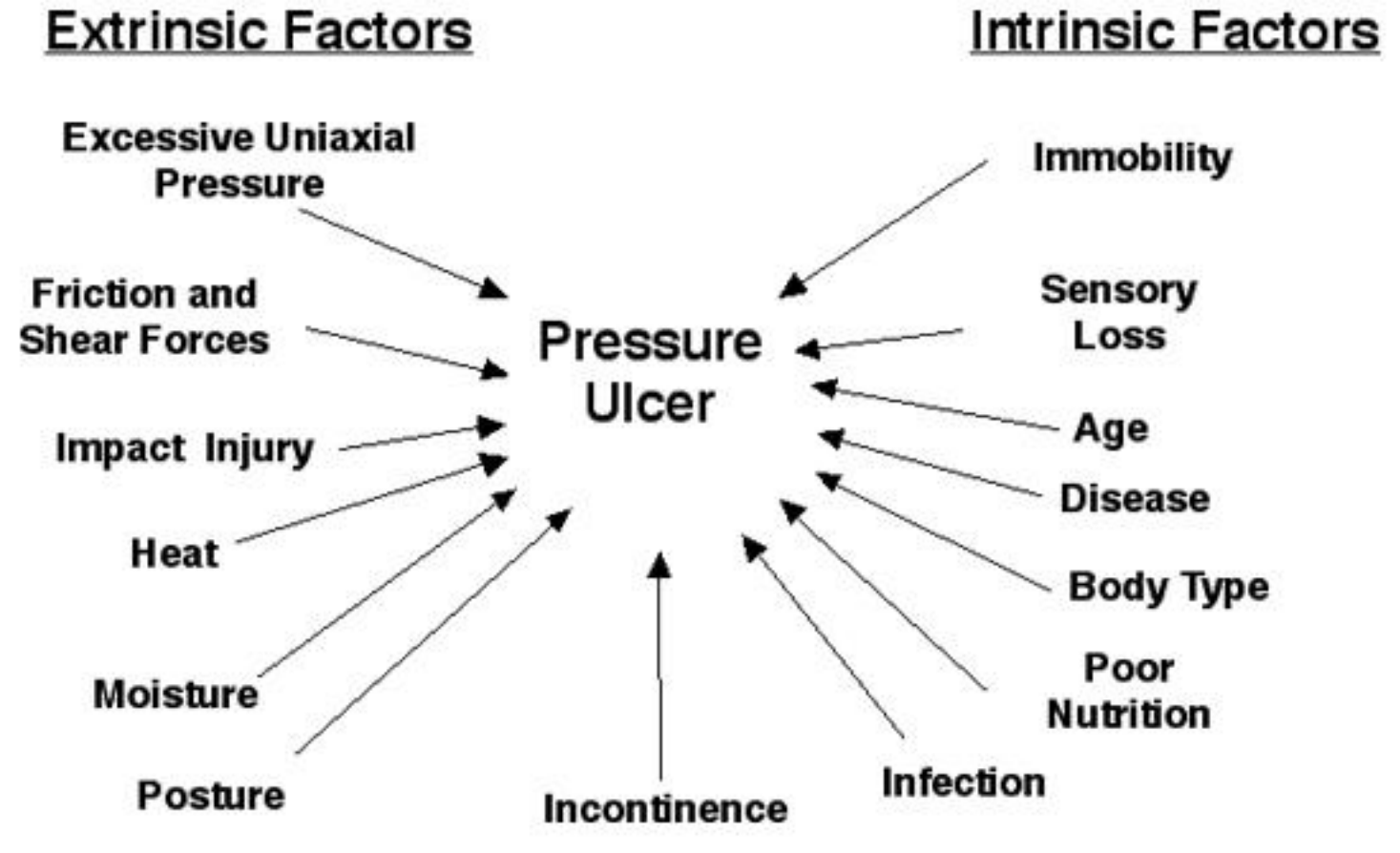
Why Skin Breaks Down



Manage Moisture

Avoid excessive perspiration

Clean and dry arm pits, groin and under breasts daily

Avoid incontinence





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Nutrition

Drink plenty of water

If you have a sore add protein to your diet

Meat, eggs, dairy, peanut butter, and fish

Supplements if needed as you lose protein through wound drainage





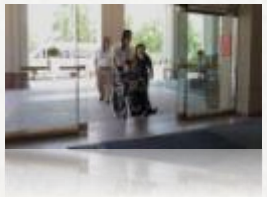
Clothing

Avoid tight clothing

Watch for wrinkles and bunching up

Avoid thick seams, buttons or zippers that press on the skin




Wheelchair Users

Make sure your wheelchair fits you

Make sure you use a pressure redistribution cushion
Options: Foam, Gel, Air

Make sure Air cushions do not have holes in them

Don’t sit on a donut-shaped cushion

When you transfer lift instead of dragging





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Pressure Reduction Methods

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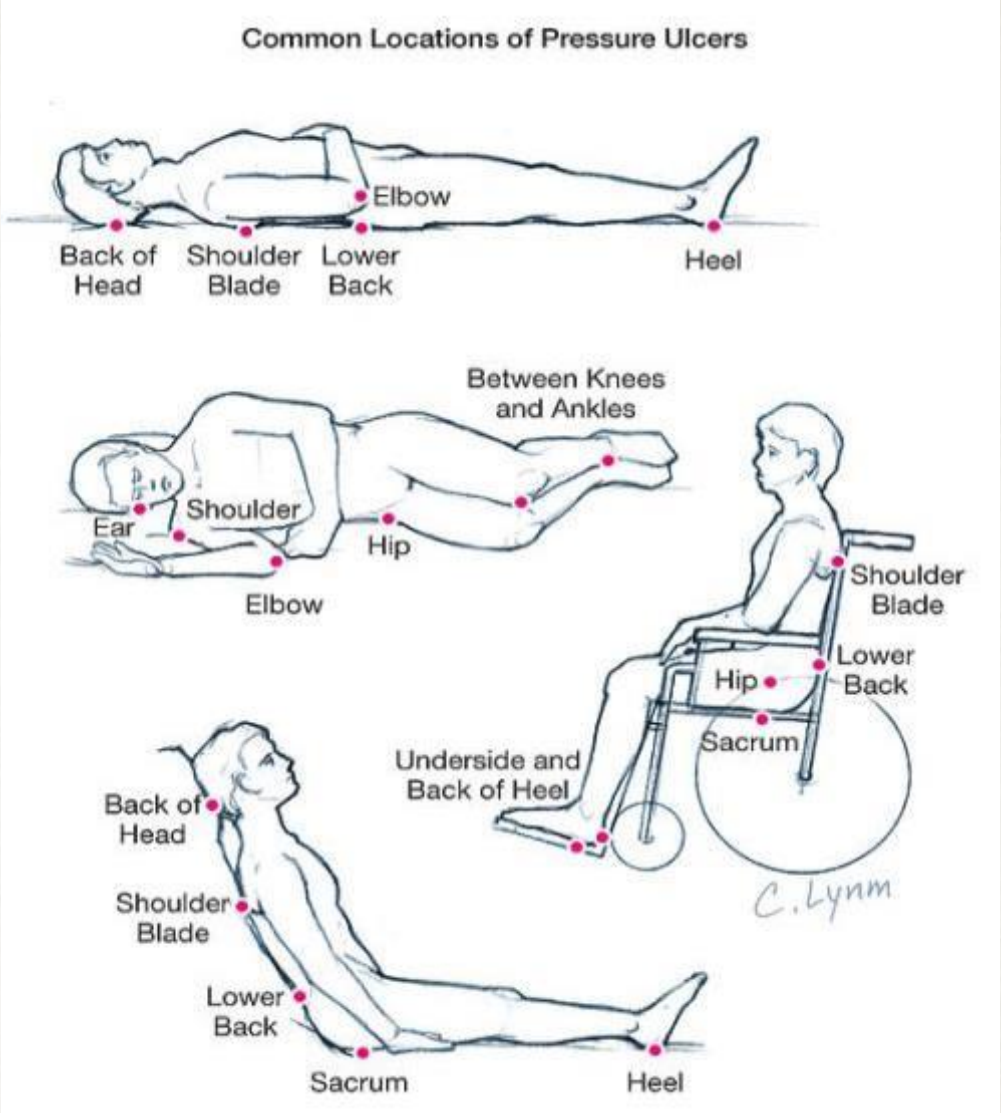
- Common Locations of Pressure Ulcers



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Pressure Reliefs

Most effective methods:

- Leaning forward in your wheelchair seat
- Tilting your wheelchair back 65 degrees

Should last for 2 minutes each time

Perform every 15 minutes

Allows blood to flow back to the skin over bony parts





Leaning Forward

To be effective must hold 2 minutes

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Pressure Reliefs Leaning Sideways

- Can hold armrest or push handle for stability or lean on a solid surface such as table
- Should maintain for 2 minutes

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Pressure Relief Reminders

Watch set to go off every 15 minutes as reminder

Power wheelchair users can use the Virtual Seating Coach app

Mango Health app allows you to set healthy habit reminders





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Offloading

- Remove pressure from area completely

- For red spots on sit bones (ischial tuberosities) lay on stomach
- From brace don’t wear the brace
- Use pillows in bed to protect bony parts
- Float heels so they are not resting on the bed.

Offloading

Remove pressure from area completely

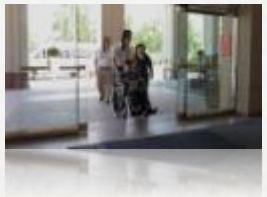
For red spots on sit bones (ischial tuberosities) lay on stomach

From brace don’t wear the brace

Use pillows in bed to protect bony parts

Float heels so they are not resting on the bed.

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Rules of 30° for Lying in Bed

- Elevate head of bed no more than 30 degrees
- Lie tipped forward from lying on your back by 30 degrees
- Lay on your side 30 degrees
- Support with pillows or wedges but not under buttocks

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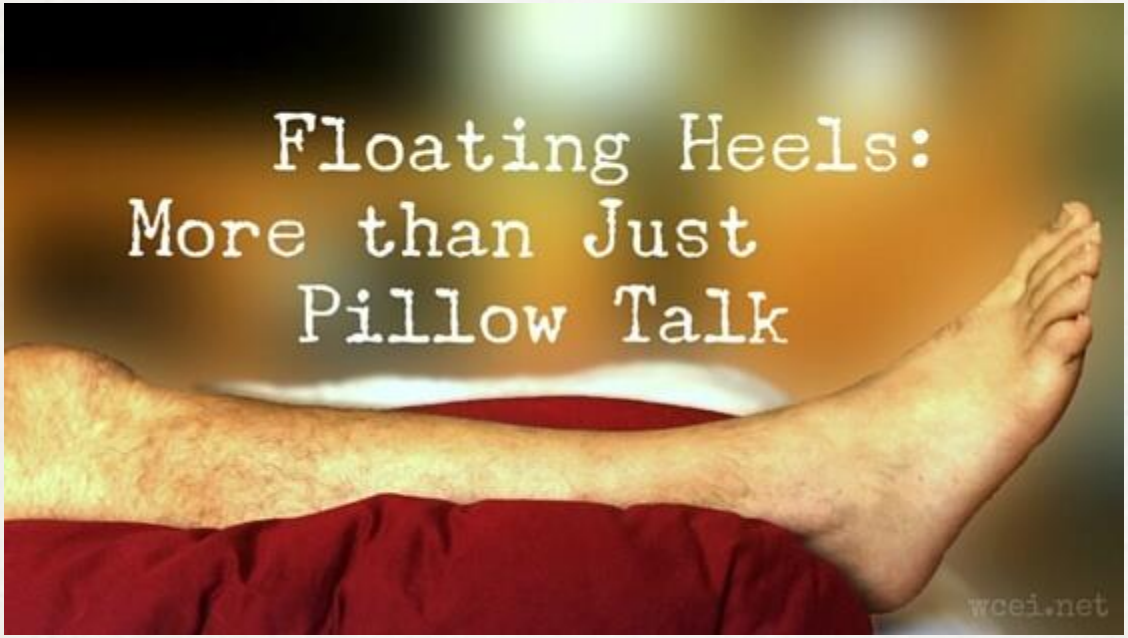
Offloading



Pressure Relieving Measures

- Turn and reposition every 1-2 hours in bed
- Separate bony prominences
- Use draw sheets to move and relocate in bed
- Do not massage reddened areas
- Limited sitting times until wound is able to handle the pressure from sitting
- PT or OT for further evaluation for other pressure relieving devices.

Skin Inspections

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How and When

Look twice a day
Morning and Evening

Do when you do not have clothes on

Before bathing or when changing clothes

Look for redness, pink areas or open sores





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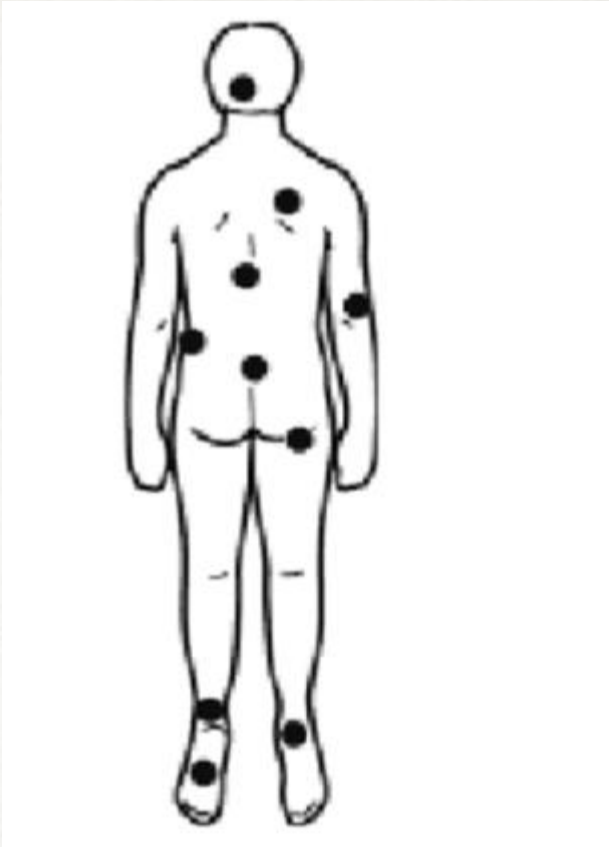
Teaching

Handout

Mirror

Stickers for training with clothes on







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Types and Stages of Wounds

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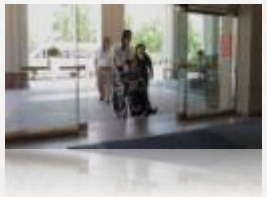
Types of Wounds

- Pressure Injury
- Surgical Incision Dehiscence
- Skin Tears
- Diabetic, Venous, and Arterial



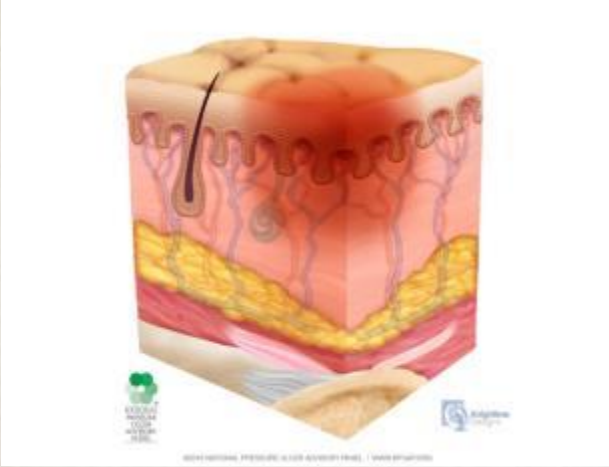




Pressure Injury Definition

- A pressure injury is localized damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear. The tolerance of soft tissue for pressure and shear may be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue.

NPUAP Pressure Injury Stages | The National Pressure Ulcer Advisory Panel – NPUAP. (n.d.). Retrieved May 26, 2016, from https://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages/

Stages of Pressure Injury



- Stage I
- Intact skin with non-blanchable erythema of a localized area usually over a bony prominence.
- Darkly pigmented skin may not have a visible blanching.

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Stages of Pressure Injuries

- Stage 1
- Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes
- Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury

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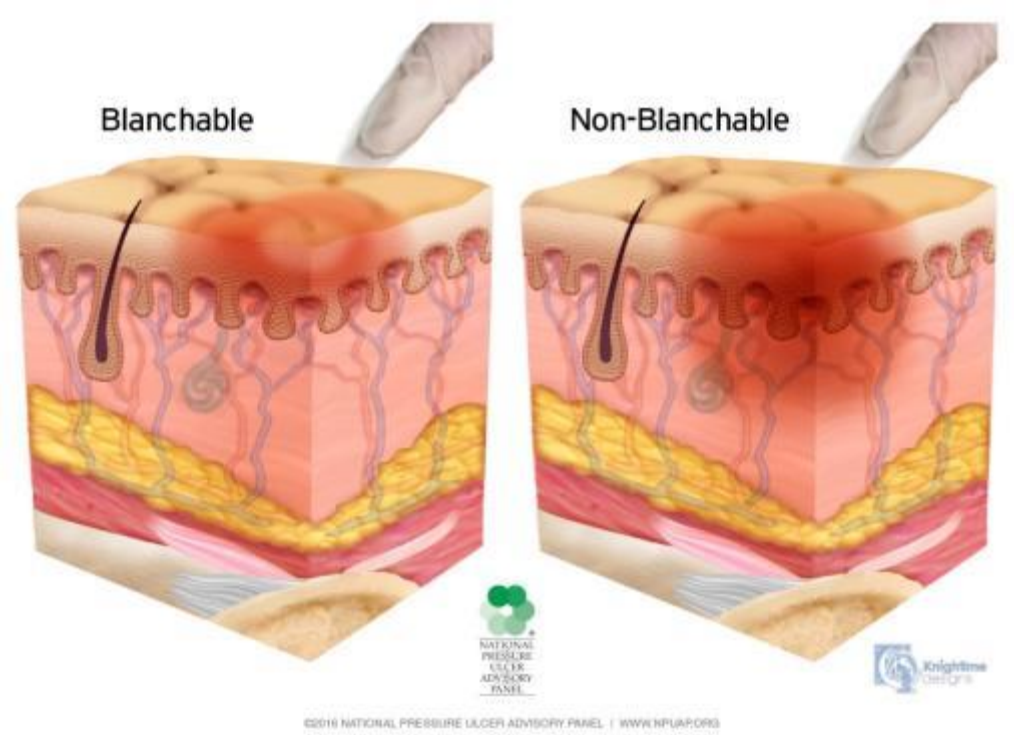

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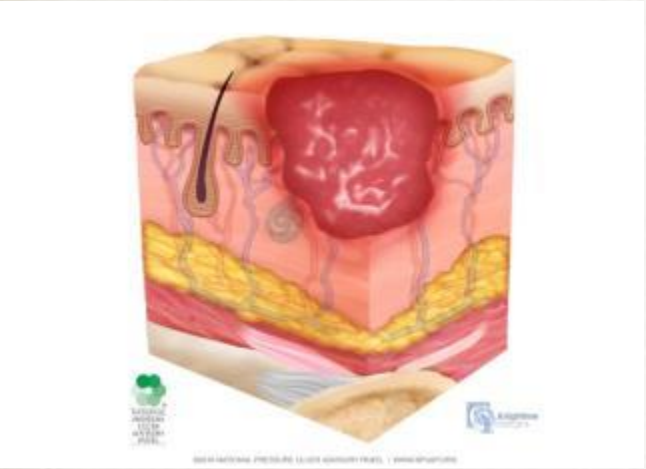
Stages of Pressure Injury



- Stage II
- Partial thickness loss of skin with exposed dermis.
- Wound bed is viable, pink, or red, moist and may also present as an intact or ruptured serum-filled blister.

NPUAP Pressure Injury Stages | The National Pressure Ulcer Advisory Panel – NPUAP. (n.d.). Retrieved May 26, 2016, from https://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages/

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Stages of Pressure Injury

- Stage II
- Fat and deeper tissues are not visible
- Granulation tissue and dead tissues are not present.

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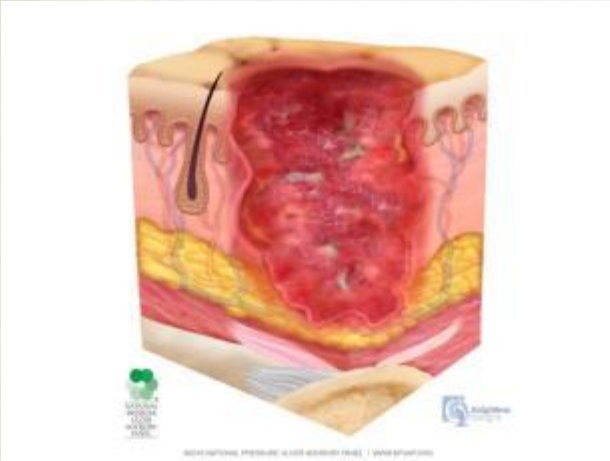

- Stage III
- Full thickness tissue loss in which fat is visible and granulation tissue and epibole are often present.
- Slough and eschar may be visible.
- Fascia, muscle, tendon, ligament, cartilage and/or bone is not exposed.
- May include undermining and tunneling.

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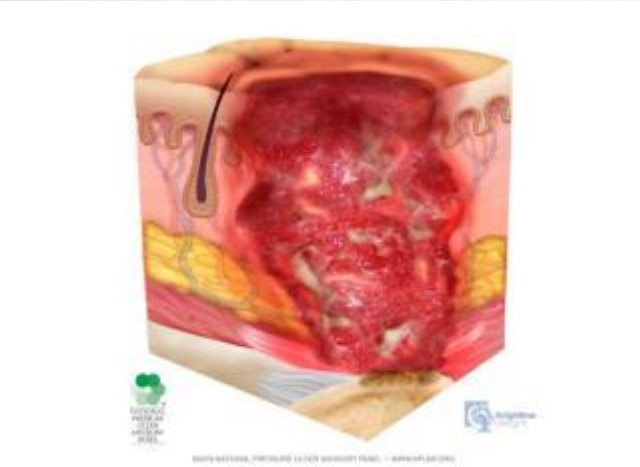
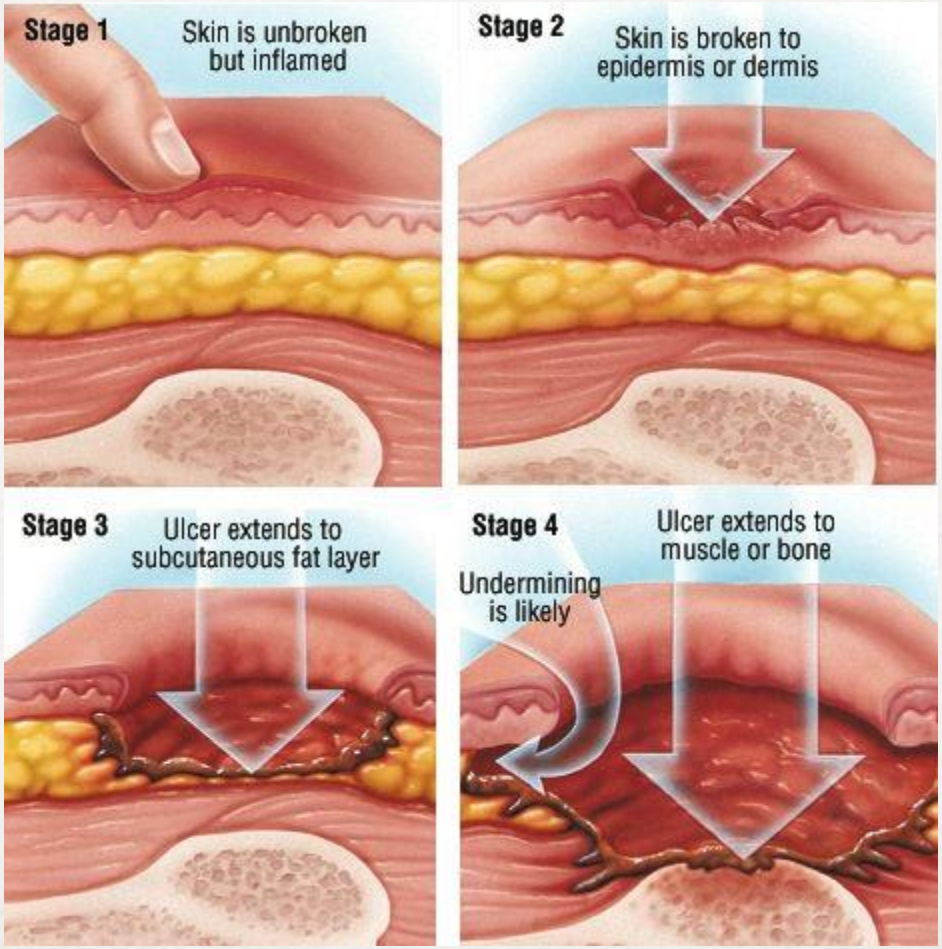


- Stage IV
- Full thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone.
- Slough and/or eschar may be present.
- Epibole, undermining and/or tunneling often occur.
- Depth varies by anatomical location.

- If bone is exposed there is an 80% chance of developing osteomyelitis.

NPUAP Pressure Injury Stages | The National Pressure Ulcer Advisory Panel – NPUAP. (n.d.). Retrieved May 26, 2016, from https://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages/

Stages of Pressure Ulcers



Stages of Pressure Injury

- Unstageable

- Full thickness skin and tissue loss in which the extent of the tissue damage cannot be confirmed because it is obscured by slough and/or eschar.
- If the slough/eschar is removed a Stage 3 or 4 pressure injury will be revealed

- Use when unable to visualize base of wound bed.

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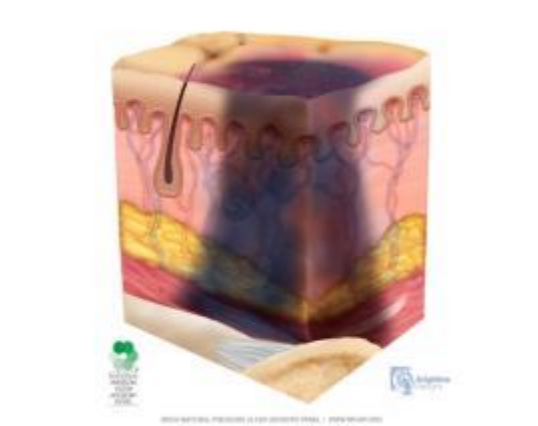

- Deep Tissue Injury (DTI)
- Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or a blood filled blister.
- Pain and temperature change often precede skin color changes.
- Discoloration may appear differently on dark pigmented skin.
- Initially has a bruised look
- Injury may have occurred up to 7 days prior to evidence

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Stages of Pressure Injury

- Deep Tissue Injury (DTI)
- This injury is from intense and/or prolonged pressure and shear forces at the bone-muscle interface.
- The wound may evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss.
- If necrotic subcutaneous tissue, granulation tissue, fascia, muscle, or other underlying structures are visible, this indicates a full thickness pressure injury.

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Medical Device Related Pressure Injury

- Result from the use of devices designed and applied for diagnostic or therapeutic purposes.
- The resultant pressure injury usually conforms to the pattern or shape of the device.
- The injury should be staged using the staging system.

NPUAP Pressure Injury Stages l The National Pressure Ulcer Advisory Panel – NPUAP. (n.d.). Retrieved May 26, 2016, from https://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages/

Other Wounds

Pressure Injuries are the only Injuries that are staged

Other wounds are classified by partial or full thickness

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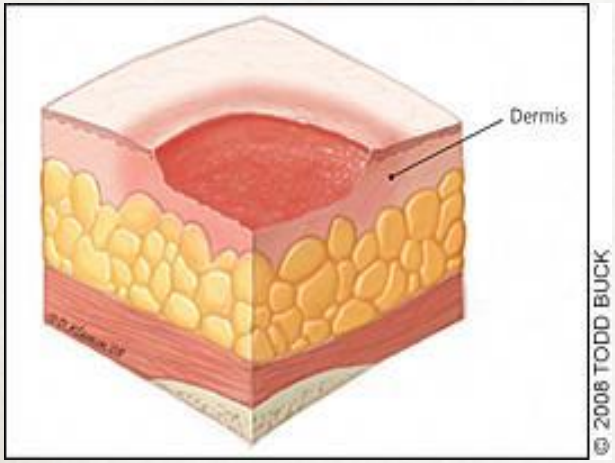
Partial Thickness

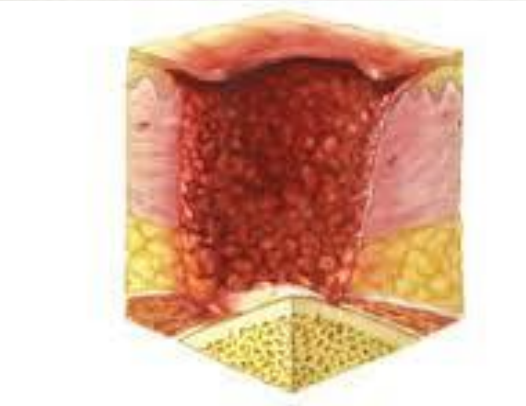
- Partial thickness indicates tissue destruction through the epidermis extending into but not thru the dermis.



Wound Documentation Tips. (n.d.). Retrieved May 26, 2016, from http://www.woundconsultant.com/files/Wound_Documentation_Tips_6.07.pdf

Full thickness

- Full thickness indicates tissue destruction extending thru the dermis to involve subcutaneous tissue and possibly bone and muscle.



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Treatment

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T.I.M.E. principal

T = Tissue Management

I = Inflammation and Infection Control

M =Moisture Balance

E =Epithelial Edge Advancement





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T = Tissue Management

Remove dead tissue

Products:

- Santyl (Collagenase)-needs prescription
- Medihoney
- Hydrocolloid (Duoderm)
- Hydrogel (Solosite)
- Moist to dry dressing changes(avoid as the first choice)





Gauze Dressings

Used with wet to dry dressing changes which is a form of debridement (change every 8 hours)

Wet to moist changed every 8 to 12 hours and should not be allowed to dry out





Debridement

Surgical debridement is the fastest method

Used when:

- Extensive dead tissue
- Signs of advanced cellulitis or sepsis



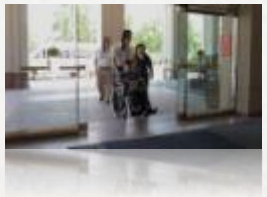


I=Inflammation and Infection Control

Signs in wound bed:

- Delayed wound healing
- Abnormal odor
- Friable granulation tissue
- Swelling
- Hard skin around the wound
- Increased drainage
- Lacking or abnormal red beefy tissue




Inflammation and Infection Control

Types of drugs:
- Antibiotics
- Antifungals

Types of dressings: (all require prescription)
- Iodine dressings
- Aquacel Ag
- Mesalt
- Xeroform
- Calcium Alginates
- Silver dressings





M = Moisture Balance

Absorb excess drainage

- Protect the surrounding skin from wetness from the drainage with a barrier cream

Insulate wound bed

- Foam dressing
- Less frequent dressing changes

Maintain moist wound bed





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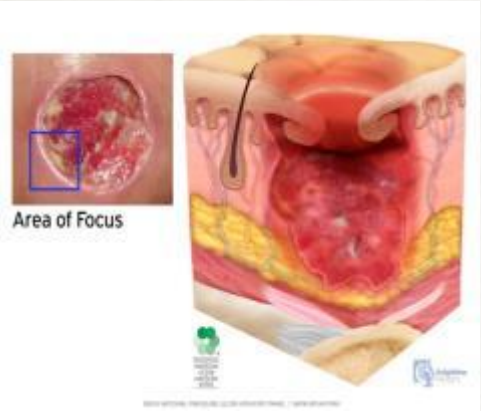
E = Epithelial Edge Advancement



- Pack dead space with wound fillers
- Maintain healthy wound edges
- Epibole – wound edges have rolled over the wound margin
- Silver nitrate
- Protect from Trauma and Bacteria

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Treatments for a Stage I Pressure Injury

Off loading is primary

Can protect Bandaid or other off the shelf simple dressing





Treatments for a Stage II Pressure Injury or Partial Thickness Wound

Off load the area

Bandaid can be used depending on surface area

Antibiotic Ointments are intended for scrapes, minor cuts, and burns
Neosporin works on gram positive and negative environments.

Hydrogel can add moisture if needed (Solosite)





Treatment of a Stage III or Stage IV Pressure Ulcer

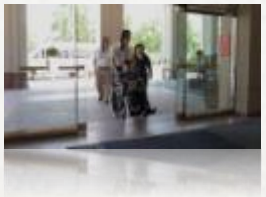
Consult your doctor right away

At greater risk for infection

Can lead to hospitalization

Can lose valuable time in life when you have to stay off the area to allow it to heal

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Diabetic Ulcers

Be sure that you see your doctor

Doctor needs to manage your A1C levels

See a podiatrist for nail clippings regularly

May need special shoes to prevent breakdown in future





Venous and Arterial Ulcers

See your doctor as this is related to your circulation

May recommend compression for venous ulcers

May refer you to a specialist for management





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Dressing Prescription in a Nut Shell

“ IF IT’S DEAD, REMOVE IT”

“ IF IT’S DRY, MOISTEN IT”

“ IF IT’S WET, MANAGE IT”

“ IF THERE’S A HOLE, FILL IT”





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