

## Repositioning for Pressure Ulcer Prevention



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## Pressure Ulcer Prevention Program Includes Many Aspects

- ▶ Risk assessment
- ▶ Skin assessment and inspection
- ▶ Nutritional assessment
- ▶ Preventive skin care
- ▶ Proper positioning
- ▶ Use of pressure redistribution surfaces
- ▶ Accurate documentation
- ▶ Education of patient, family and staff

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## Risk Factors for Pressure Ulcer Development

- ▶ Factors that place persons at risk:
  - Inability to perceive pressure
  - Exposure to incontinence / moisture
  - Decreased activity level
  - Inability to move or be repositioned
  - Poor nutritional intake
  - Exposure to friction and shear

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### Risk factor: inability to perceive pressure

- ▶ The ability to perceive or sense prolonged pressure on the skin
  - Normally makes us move, even slightly, to get blood to the skin that was under pressure
- ▶ In persons who do not sense the pressure or cannot move, pressure is unrelieved
- ▶ High risk persons
  - Comatose
  - Confused
  - Restrained
  - Paralyzed
  - Neuropathic disease
    - Diabetics, multiple sclerosis

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### Risk factor: moisture on skin

- ▶ Moist skin is more likely to be injured by pressure
- ▶ Moisture is absorbed into the epidermis
  - Becomes soft
  - Does not glide
- ▶ Some forms of moisture burn the skin
  - Diarrhea, G tube drainage, wound drainage
  - These skin problems are not pressure ulcers

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### Risk factors: immobility/inactivity

- ▶ Being unable to move about in bed or be ambulatory leads to unrelieved pressure on the skin
- ▶ Considered to be the most important risk factor



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### Risk factor: malnutrition

- ▶ Adequate intake of protein, carbohydrate and fluids
  - keeps the skin healthy
  - able to withstand pressure
- ▶ When protein intake is low
  - Tissues become edematous
  - Cannot tolerate pressure



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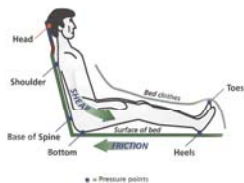
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### Risk Factor: Shear

- ▶ Shear is a force on the skin
- ▶ Gravity pulls the skeleton down in bed while the skin sticks to the linen



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### Risk Factor: Friction

- ▶ Friction is the movement of one layer of tissue against another one or an external surface
- ▶ Heat develops in the tissues and leads to blisters
- ▶ Common to develop in agitated persons and from sliding down in bed
  - Heels, elbows



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### Assessment of Risk Factors for Pressure Ulcers

- ▶ Known risk factors for pressure ulcers are often combined into one assessment to determine risk
- ▶ Risk assessment allows for early and appropriate reduction of risk
  - Turning schedules
  - Pressure redistribution devices
    - Mattresses /overlays/beds
  - Nutritional supplements
  - Skin protection during incontinence

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### Braden Risk Assessment Scale

(abridged version)

<b>Sensory Perception</b>	1 Completely limited	2 Very limited	3 Slightly limited	4 No impairment
<b>Moisture</b>	1 Constantly moist	2 Very moist	3 Occasionally moist	4 No impairment
<b>Activity</b>	1 Bedfast	2 Chairfast	3 Walks Occasionally	4 Walks frequently
<b>Mobility</b>	1 Completely immobile	2 Very limited	3 Slightly limited	4 No limitation
<b>Nutrition</b>	1 Very poor	2 Probably inadequate	3 Adequate	4 Excellent
<b>Friction &amp; Shear</b>	1 Problem	2 Potential problem	3 No apparent problem	

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### Comparing Scores Between Braden and Norton Scales

#### Braden Scale

Sensory perception = 2  
 Moisture = 1  
 Activity = 1  
 Mobility = 2  
 Nutrition = 1  
 Friction/shear = 1

Total = 8

#### Norton Scale

Physical condition = 2  
 Mental condition = 2  
 Activity = 1  
 Mobility = 2  
 Contenance = 1

Total = 8

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### Modify risk assessment with other findings

- ▶ Skin alterations
  - Dry skin and red skin increase risk
- ▶ Anemia and low serum albumin
- ▶ Impaired perfusion and oxygenation, from:
  - Diabetes, low blood pressure, need for oxygen
  - Use of medications to increase blood pressure
- ▶ Advanced age
- ▶ General health status
- ▶ Fever

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### Using Risk Assessment to Plan Care

Develop a care plan based on subscale scores and other conditions

Immobile = reposition q 2 hrs in bed

Inactive = reposition q 1hr in w/c

Shearing = keep HOB as low as possible

Limited awareness= assess skin daily and with each position change

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### Skin Assessment

- ▶ Designed to find ulcers early
  - Heal them quickly
  - Prevent new ulcers
- ▶ Examine all the skin
  - On admission
  - Daily with routine care
- ▶ Formal skin assessment weekly in LTC



Skin must be bare, you cannot see ulcers through clothing

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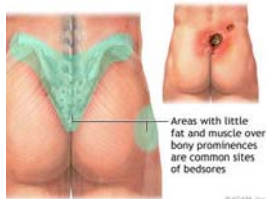
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### Where to look for pressure ulcers

- ▶ Examine areas where the body comes in contact with the bed or chair
- ▶ Supine = sacrum, heels
- ▶ Side lying = trochanters and ankles
- ▶ Sitting = ischia



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### Determine Blanching of Red Areas

- ▶ Blanching is
  - Reactive hyperemia when tissue deprived of blood
    - Redness should disappear quickly
- ▶ Determine if red areas are blanchable
  - Stage I pressure ulcers do not blanch



Blanching will not be visible in darkly pigmented skin: use other indicators of stage I PrU

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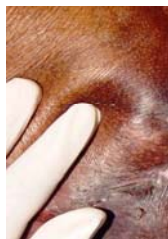
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### Skin inspection in individuals with dark skin tones

- ▶ Palpate skin for edema or induration
- ▶ Stage I pressure ulcers feel boggy or hard from edema in the tissues



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### Assessing the Skin in the Obese

- ▶ Get help to see all the skin
- ▶ Examine skin folds under the breasts, abdominal folds, back folds, and perineal areas



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### Assess beneath medical devices

- ▶ Examine the skin beneath:
  - Oxygen tubing, face masks, trach ties
    - Look behind the neck and on the ears
  - Boots and heel protectors
  - Support stockings
  - Urinary and fecal catheters
  - IVs and monitoring devices
  - NG and feeding tubes
  - Splints, braces



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### When the Skin is Red

- ▶ Do not massage
  - Massage may decrease rather than increase blood flow
- ▶ Do not position on red area



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## Repositioning/Turning

- ▶ Turn bed-bound individuals
  - frequency depends on patient's response to turning schedule
  - Begin with 2 hours and adjust as the skin tolerates any one position (1 ½-3 hours)
- ▶ Reposition chair-bound individuals every hour
- ▶ Reposition/turn even while on pressure redistribution surfaces
  - The use of "special beds" does not eliminate the need to turn from side to side



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## Use 30° Side Lying position



- ▶ Avoid positioning directly on the trochanters
- ▶ Use the 30° lateral inclined position

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## Use pillows to keep bony prominences apart



- ▶ A pillow between the lower legs keeps the knees and ankles apart

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## No Donuts

- ▶ Do NOT use plastic rings or donuts for pressure relief
- ▶ Can cause larger area of tissue injury because of intense pressure along the donut



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## When Sitting Up in Bed Limit Head of Bed Elevation

- ▶ Limit amount of time head of bed is elevated to reduce friction and shear
- ▶ Maintain the lowest possible elevation
- ▶ Avoid more than 30° head-of-bed elevation unless medically needed
- ▶ Turn and lift with lifting sheets



Elevating the head of the bed causes the patient to slide down in bed, causing a shearing injury to the sacrum. When pulled back toward the head of the bed, friction occurs

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## Elevate Heels to Offload

- ▶ There must be space between the heel and bed
- ▶ Use pillows to elevate heels off the bed surface
  - Place under the calf, so the heel floats from the bed
- ▶ Avoid hyper-extension of the knees
  - Flex the knee-gatch on the bed



Heels can be floated from the bed by simply elevating the lower leg

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### Boots to Offload the Heels



- ▶ Consider pressure relieving devices for high risk patients
- ▶ Remove the device twice daily to check for reddened areas

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### Positioning Devices

- ▶ Teach individual to reposition using the trapeze
- ▶ Use lifting devices to move individuals who cannot assist



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### Reducing Friction

- ▶ High risk persons
  - Agitated
  - Spastic
  - Sliding down in bed
- ▶ Apply dressings over high shear areas
- ▶ Use support surfaces with low coefficient of friction



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### Preventing Friction Injury

- ▶ Sleeves for elbows
- ▶ Stockings for heels
- ▶ Use heel and elbow protectors



Boots that allow the heel to touch the bed do not prevent pressure

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### Rehabilitation Programs

- ▶ Consider various therapies if consistent with overall goals of care for the resident
  - Physical therapy for ambulation & strengthening
  - Occupational therapy for splinting & self-care
  - Speech/language therapy for swallowing
  - Restorative care for maintenance
- ▶ Individualize program



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### Documenting Turning

- ▶ Be certain that specifics are in care plan
- ▶ Document daily in LTC at a minimum
- ▶ Document every shift in acute care at a minimum
- ▶ Ask "What if I have to defend my work in court?"



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### Create job aids to facilitate work

- ▶ Identification of high risk patients
  - Door tags
  - Verbal report at bedside
  - Braden every shift
- ▶ These “flags” must lead to more than paper compliance
  - Implement preventive interventions from risk score
- ▶ Reward staff who find stage I ulcers

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### Noncompliant or Nonadherent Residents/Patients

- ▶ Investigate cause of noncompliance or nonadherence (preferred term)
  - Is it to watch TV?
    - Can bed be moved?
  - Is it to reduce pain?
    - Arterial disease of the leg (PVD) causes pain when leg is elevated. Try a bed with a sloping foot portion, or place patient in reverse Trendelenburg
  - Is it the preferred position?
    - If so, will likely need a mattress overlay

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### Documenting Noncompliance/nonadherence

- ▶ Record
  - What behavior is present
  - What is the likely cause of the behavior (if known)
  - What attempts were made to change so as to position off of ulcer
  - Notification of MD and family that ulcer will deteriorate if patient continues to lie on it
- ▶ Ideally, all of this documentation precedes the deterioration of the ulcer due to nonadherence

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## Education

- ▶ Involve all levels of health care providers, the individual and the family
- ▶ Structured, organized and comprehensive
- ▶ Update content regularly



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**Positioning, Repositioning and Turning are Interventions Everyone on the Team Should be Able to Perform**

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