

Meet Me at the Skin Care Fair

Purpose: Provide staff with the knowledge to prevent pressure injuries.

Methods: Hands on activities and discussion.

Proof of learning: Ability to state several interventions to prevent pressure injuries.

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Part I

Hands on Activities

Oh, My Precious Epidermis

1. The Barren Desert

- Objective: To visually see the effects of friction on the skin. Dry onion skin should tear and shed when inserted in and out of a long tube sock. Applying lotion should moisturize the onion skin, reduce friction and help prevent skin tears.
 - Advise the participants to think of the onion as an elder's fragile skin, and the sock as his or her bed linen.
 - Have dry onions available (Hint: Onions should be dry and kept at room temperature for best skin shedding).
 - Have participant try to put a dry onion in and out of a long tube sock. Note what happens to the onion's skin. Turn the sock inside out so the participants can see all the onion's skin that has shed.
 - Now apply lotion generously all over the dry onion. With a clean sock, repeat the process. Turn the sock inside out to show little to no shedding occurred. How does applying lotion change the results seen on the onion's skin?
 - (Another hint to reduce friction: Have volunteer roll the sock all the way down to the toes to reduce "sliding" the entire sock over the onion)
 - Have paper towels available for participant to clean lotion from his/her hands.

Lesson:

- A. Keeping skin moisturized minimizes the negative effects of friction.
- B. When applying lotion, avoid vigorous massage over bony prominences or reddened areas.

2. Fragile-Handle with Care

- Objective: Pulling off silk tape from an over-ripe tomato will pull the tomato's skin off thus replicating how easily the skin can tear.
 - Ask the audience who has a "tender touch?" Invite this individual to come up and participate in this activity. Advise the participants to think of the tomato as the fragile skin of an elderly resident and the silk tape as a band-aid or dressing.
 - Have an over-ripe, thin skinned tomato with silk tape applied (If tomatoes are not available, may use plums, or any fruit with skin that tears easily. Hint: Keep tomatoes/fruit at room temperature to ensure delicacy.
 - Tell the participant that his/her challenge is to remove the silk tape without tearing the skin. If the participant succeeds, have the audience clap for him/her and designate them as having a "tender touch."

Lesson:

- A. Do not apply adhesives directly to fragile skin. Use roll gauze to secure primary dressing.
- B. Remove all adhesives with care, so as not to tear the skin.
- C. Remember, any harsh movement or pulling can create a skin tear.
- D. Residents can wear long sleeves and pants to add a layer of protection.
- E. Provide a well-lit environment to reduce the risk of residents bumping into equipment or furniture (Baranoski, S., 2003).

3. The Barrier Reef

- Objective: After submerging both hands into colored water, the participant should notice a difference in skin color between the unprotected hand and the hand with barrier ointment. In addition, water will bead (be repelled) only on the protected hand.
 - Apply moisture barrier to top of one hand (Hint: For this demonstration, it is best to use a clear barrier ointment (i.e., A&D) rather than white zinc oxide).
 - Pan of water with generous amount of food coloring (Hint: red works great!)
 - Have participant place both hands in the water for a few minutes. Ensure water covers the tops of the hands. While the hands are soaking, ask the audience what they expect the hands will look like when removed.
 - Remove the hands and compare them. The knuckles of the unprotected hand will appear "colored" while the protected hand repels the food coloring and water beads on it.
 - Hint: an effective analogy to draw is reminding them how a car with a good wax application repels (beads) the water when it rains. A sign that the car is being protected. In the same respect, they will see water beading on the hand with barrier ointment.
 - Have towels available for drying

Lesson:

- A. Maceration is the term for "water logged" appearance. Macerated skin over a bony prominence is at higher risk for developing a pressure injury.
- B. Always use a barrier cream to protect skin exposed to incontinence.

4. You're Tearing Me Apart:

- Objective: As the participant slides against the wall with the wax paper, he/she is replicating friction and shearing. The wax paper should crinkle and may even tear.
 - To make this fun, ask for a participant, who is the "wild one" in the group. Usually the group points out this individual.
 - Give participant a piece of wax paper
 - Advise the audience to think of the wax paper as fragile skin and the wall as the bed linen.
 - Have the participant lean against the wall on the paper
 - Advise the participant that you are going to see how "wild" he/she really is. Have him/her slide up and down the wall, and side to side. At the same time, ask the participants what they expect to happen to the wax paper.
 - Allow the audience to view the participant's wax paper.
 - Ask the participants to discuss ideas on how to reposition residents to reduce friction.

Lesson:

- A. To minimize friction and shear, use draw sheets and lifting devices to "lift" rather than "drag" residents.
- B. Keep the HOB at, or below, 30 degrees or at the lowest degree of elevation, consistent with the resident's medical condition,
- C. Engaging the knee gatch prior to elevating the HOB can minimize sliding down in bed.
- D. Use cushioning devices, such as pillows, to prevent the touching of bony prominences.

1. You're Pushin' Too Hard on Me

- Objective: A blood pressure cuff, partially inflated on the participant's arm, will enable the individual to experience low intensity pressure.
 - Apply a blood pressure cuff to participants arm
 - Inflate to 60 mm (This number was chosen arbitrarily to demonstrate low intensity pressure).
 - Ask the audience "How much pressure does it take to develop a pressure injury? A lot of pressure or a little bit of pressure?"
 - Ask the participant: "Do you feel pressure?" If yes, ask "How much - a lot or a little?" If no, ask them "If the blood pressure cuff was left on for 5 more minutes, would you be uncomfortable then?"

Lesson:

- A. Unrelieved-low pressure over a long period of time can cause tissue damage. (Bryant, R. 1992).
- B. One way to relieve pressure is through consistent turning schedules: turn bed bound residents every 2 hours and reposition chair bound individuals hourly.
- C. Encourage chair bound individuals to shift weight every 15 minutes if possible.

2. Mom, She's Squeezin' Me

- Objective: Pushing the stick on the balloon will create an area of high-intensity pressure and the balloon will pop (develop a wound).
 - Small balloon
 - Stick or pointed pencil
 - Have participant apply intense pressure on the balloon with the stick or pencil. Preferably until it pops (just like creating a wound).

Lesson:

- A. Tissue damage can occur within a short period of time with high-intensity pressure (Bryant, 1992).
- B. Actions that minimize pressure, such as using pillows and wedges between bony prominences, will help prevent pressure injuries.

1. I'm Sooo Sensitive

- Objective: When the participant sits on a pillow with a firm ball underneath, he/she will not be comfortable sitting.
 - Ask the audience if there is a princess present. Choose a participant to test if they are truly a "princess."
 - A chair with a small, firm rubber ball or tennis ball
 - Secretly place pillow (covered with a plastic garbage bag for cleanliness) on top of the ball so that the ball is not visible
 - Have participant sit on the pillow. To make it fun, advise the participant no wiggling allowed or the audience will "boo." For fun, have the audience practice "booing" one time.
 - While the participant is sitting, tell the story of the Princess and the Pea. (Once upon a time, a girl wanted to marry the prince. Since only a true princess could marry the prince, his mother, the queen, gave her a test to see if this was the case. For her test, the girl had to sleep on top of a pile of many mattresses. Unbeknown to her, a pea was placed under the very bottom mattress. A true princess would detect this! Needless to say, the girl could not fall asleep because there was something making the mattress very uncomfortable (the pea). She told the queen of this. The queen recognized that she truly was a princess. She married the prince and lived happily ever after. The end of the story.)
 - State that you will now see if there is a princess in the chair. Ask the participant if he/she feels comfortable sitting? If the participant is uncomfortable, deem him/her prince/princess for the day!
 - Show the audience the hidden rubber ball under the pillow. Usually they will laugh at this point.
 - Ask the audience what can be done to wheelchairs and beds to reduce pressure and make the resident more comfortable.

Lesson:

- A. Use support surfaces on beds and chairs to reduce or redistribute pressure.
- B. Ensure support surfaces are in place and in proper working condition.

2. Dorothy's Shoe..“Lions, and tigers, and bears oh my!” Repeat Lions, and tigers, and bears oh my!” with the sound clip. Then state “Pressure and blisters and objects oh my!”(just like the previous phrase).

- Objective: By having the participant with closed eyes feel in the shoe, he/she will feel objects that could create pressure on the foot.
- Place paper clip and other small objects in shoe (ie. paper clips, dimes, nickels, rubber band, ball).
- Have the participant close their eyes and feel to identify the objects. Any parts of the shoe itself that could create pressure on the foot can be identified. Have the audience clap if the participant can identify the objects.
- Remind the audience that some residents may not be able to sense pressure and react to it. For example, diabetics may have limited sensation of the feet and be unable to detect pressure, even from a shoe.
- Ask the audience if they can identify other equipment that can create pressure on the skin i.e. oxygen cannula, improperly fitting incontinent briefs.

Lesson:

- A. Be alert for anything that could create pressure on the skin,
- B. Check skin under and around medical devices for pressure injuries, including but not limited to: oxygen cannula tubing, urinary catheters, feeding tubes, splints, binders, compression hose.
- C. Limited sensory perception, the ability to sense and react to pressure, is a risk factor for pressure injuries. By inspecting the skin on a regular basis, objects/equipment creating pressure can be noted.

Part II

Group Discussion Section

Terrors of the Deep: What It Looks Like When Pressure Sores Develop

We will now replicate the stages of pressure injuries. Remember that **pressure** is the underlying cause of pressure injuries:

Stage 1: Banana

- **Description:** The bruised areas of a banana replicate stage I pressure injuries.
- **Discussion:** The bruised area of a banana replicates a stage I pressure injury:

With a stage one pressure injury, the skin is not broken but there is an area with one of the following characteristics: change in the skin temperature, tissue consistency (firm or boggy) or sensation, when compared to an adjacent or opposite area on the body.

For people with lightly pigmented skin, it may appear as an area of **persistent redness**.

For people with darker toned skin, it may appear as a persistent **red hue**.

Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury.

Stage 2: Orange

- **Description:** To simulate a Stage 2 pressure injury, use a potato peeler to slightly shave rind but not break through to the actual fruit of the orange.
- **Discussion:** The peeled area of the orange represents a Stage 2 pressure injury. It is a partial thickness pressure injury that involves the epidermis, dermis or both. It is superficial and can present as an abrasion, blister, or shallow crater.
- **Discussion:** This stage should not be used to describe moisture associated skin damage (MASD) including incontinence associated dermatitis (IAD), intertriginous dermatitis (ITD), medical adhesive related skin injury (MARS), or traumatic wounds (skin tears, burns, abrasions).

Stage 3: Orange

- **Description:** To simulate a Stage 3 pressure injury, use potato peeler to remove all the rind in one area and slightly break through to the fruit.
- **Discussion:** The peeled area of the orange represents a Stage 3 pressure injury. This is full thickness skin loss involving damage to the subcutaneous tissue, which may extend down to, but not through, the underlying fascia.
- **Discussion:** The depth of tissue damage varies by anatomical location; areas of significant adiposity can develop deep wounds. Undermining and tunneling may occur. Fascia, muscle, tendon, ligament, cartilage and/or bone are not exposed. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

Stage 4: Orange

- **Description:** Use the potato peeler to break through the rind and create a deep wound into the orange.
- **Discussion:** The area on this orange represents a Stage 4 pressure injury. Not only is the rind broke, but the damage goes deep into the fruit of the orange. With this stage, the wound is full thickness with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone. Slough and/or eschar may be visible on some parts of the wound bed. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

Unstageable Pressure Injury

Full-thickness skin and tissue loss in which the extent of tissue damage within the pressure injury cannot be confirmed because it is obscured by slough or eschar. If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed. Stable eschar (i.e. dry, adherent, intact without erythema or fluctuance) should only be removed after careful clinical consideration and consultation with the resident's physician or nurse practitioner, physician assistant, or clinical nurse specialist if allowable under state licensure laws. If anatomical depth of the tissue damage involved can be determined, then the reclassified stage should be assigned. The pressure injury does not have to be completely debrided or free of all slough of eschar for reclassification of stage to occur.

Deep Tissue Pressure Injury: **Persistent non-blanchable deep red, maroon or purple discoloration**

Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration due to damage of underlying soft tissue. This area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. These changes often precede skin color changes and discoloration may appear differently in darkly pigmented skin. This injury results 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 tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4). Do not use DTPI to describe vascular, traumatic, neuropathic, or dermatologic conditions.

Additional Pressure Injury Definitions

Medical Device Related Pressure Injury: (This describes an etiology.) Medical device related pressure injuries result from the use of devices designed and applied for diagnostic or therapeutic purposes. The resultant pressure injury generally conforms to the pattern or shape of the device. The injury should be staged using the staging system.

Mucosal Membrane Pressure Injury: Mucosal membrane pressure injury is found on mucous membranes with a history of a medical device in use at the location of the injury. Due to the anatomy of the tissue these ulcers cannot be staged.

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Item	Amount	Required for this Exercise:
Perishable		
Dry onions	1	The Barren Dessert
Tomato (ripened)	1	Fragile-Handle with Care
Colored Goldfish	1 bag	Treasure Hunt
Oranges	3	Terrors of the Deep
Banana	1	Terrors of the Deep
Non-perishable		
Treasure Chest (any container for supplies)	1	
Tube sock	2	The Barren Dessert
Moisturizer Lotion	1 tube	The Barren Dessert
Silk tape (to simulate bandages)	1 box	Fragile-Handle with Care
Balloons	1	Mom, She's Squeezin' Me
Barrier ointment	1	The Barrier Reef
Bowl	2	The Barrier Reef
Food coloring (red is best!)	1	The Barrier Reef
Wax paper	1 roll	You're Tearing Me Apart
Stick or pencil with point	1	Mom, She's Squeezin' Me
Bathroom cups (for tasting)	1 pack	Taster's Choice
Safety glasses	1	Treasure Hunt
Petroleum jelly	1	Treasure Hunt
Cloth gloves	2	Treasure Hunt
Colorful plate (plastic is best)	1	Treasure Hunt
Pillow	1	Princess and the Pea
Plastic garbage bag (to encase the pillow)	1	Princess and the Pea
Small rubber ball or tennis ball	1	Princess and the Pea
Potato peeler	1	Terrors of the Deep
Knife	1	Terrors of the Deep
Shoe (tennis)	1	Dorothy's Shoe
Paper clip, nickel, dime, small ball and/or rubber band (items go inside the shoe)	1	Dorothy's Shoe
Watch with a second hand	1	Treasure Hunt
Skin Care Fair Power point	1	
Paper towels	1 roll	
Disinfecting wipes	1 roll	Disinfected bowls, eyeglasses, plate
Items from Nursing home		
Blood pressure cuff	1	You're Pushing Too Hard on Me
Nutritional supplements	Enough for CNAs to taste hot/cold	Taster's Choice