

Introduction to Pressure Injuries Curriculum



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About the Author



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Introduction to Pressure Injuries

The Pressure Injury Simulation Kit and accompanying curriculum teaches students about the contributing factors, location and assessment of pressure injuries.

Curriculum Structure

The *Introduction to Pressure Injuries* curriculum is composed of the following lesson. Approximate teaching times are included for each section of the lesson.

Lesson	Title	Approximate Time
Focus	Empathy and Anatomy	10-20 minutes
Learn	Pressure Injuries Slide Presentation	20 minutes
Review	Assessment and Documentation	30 minutes
	Total	1 hour

Lesson Structure

Each lesson begins with a Lesson Overview, Lesson Objectives and a Lesson at a Glance table which lists the lesson activities, materials required, suggested preparation steps and approximate class time.

Lesson Sections

The actual lesson follows the overview, which will contain some of the sections described below. Approximate teaching times are included for each part of the lesson.

FOCUS

Every lesson begins with a FOCUS activity intended to capture participants' attention. This may be in the form of a small or large class discussion, a game, a review of previous lesson information or a demonstration. During this activity, participants are introduced to the topic of the lesson.

LEARN

The LEARN activity in each lesson varies in its presentation mode. It may be a slide presentation, group activity or demonstration.

REVIEW

The majority of lessons end with a REVIEW activity intended to briefly review the lesson's key messages or main points.

Lesson One – Introduction to Pressure Injuries

Lesson Overview

In this lesson, students learn about the contributing factors, location and assessment of pressure injuries.

Lesson Objectives

After completing this lesson, participants will be able to:

- Define key terms associated with pressure injuries
- Locate bony prominences subject to pressure injuries
- Demonstrate how to stage pressure injuries
- Perform the steps in accurately assessing a pressure injury
- Explain how to document pressure injuries

Lesson at a Glance

Activity	Materials	Preparation	Approximate class time
FOCUS Part 1 – Empathy: Develop awareness of patient focused care Part 2 – Anatomy: Locate bony prominences subject to pressure injuries	• <i>Introduction to Pressure Injuries Scenario</i> worksheet • <i>Introduction to Pressure Injuries Scenario Instructor Resource</i> • <i>Introduction to Pressure Injuries</i> worksheet • <i>Introduction to Pressure Injuries</i> worksheet - Answer Key	1. Print/photocopy <i>Introduction to Pressure Injuries Scenario</i> worksheet (one per participant) 2. Print/photocopy <i>Introduction to Pressure Injuries</i> worksheet (one per participant)	10-20 minutes
LEARN	• <i>Introduction to Pressure Injuries</i> slide presentation	1. Prepare <i>Introduction to Pressure Injuries</i> slide presentation for viewing	20 minutes
REVIEW Part 1 – Practice assessing pressure injury models Part 2 – Pressure Injury Quiz	• <i>Introduction to Pressure Injuries Assessment</i> worksheet • <i>Introduction to Pressure Injuries Quiz</i> • <i>Introduction to Pressure Injuries Quiz</i> - Answer Key • <i>Pressure Injuries Simulation Kit</i> • Manikin (if desired)	1. Print/photocopy <i>Introduction to Pressure Injuries Assessment</i> worksheet (one per participant) 2. Print/photocopy <i>Introduction to Pressure Injuries Quiz</i> (one per participant) 3. Place the pressure injury models from the <i>Pressure Injuries Simulation Kit</i> on a manikin for students to practice finding and assessing. Place on a real person if desired in lieu of a manikin.	30 minutes

Lesson One – Introduction to Pressure Injuries

FOCUS: Empathy and Anatomy

10-20 minutes

Purpose:

Participants will develop awareness of patient-focused care and locate bony prominences subject to pressure injuries.

Pre-Lesson Knowledge:

- Integumentary anatomy

Materials:

- *Introduction to Pressure Injuries Scenario* worksheet
- *Introduction to Pressure Injuries Scenario Instructor Resource*
- *Introduction to Pressure Injuries* worksheet
- *Introduction to Pressure Injuries* worksheet - Answer Key

Facilitation Steps:

Part 1: Empathy Focus

1. Give each student the *Introduction to Pressure Injuries Scenario* worksheet.
2. Have students work individually to read through the scenario and answer the reflection questions.
3. Pair students up and have them share their thoughts to the reflection questions.
4. As a class, call on volunteers to share their thoughts on the reflection questions. Suggested answers and additional activities are listed on the *Introduction to Pressure Injuries Scenario Instructor Resource* page.

Part 2: Anatomy Focus

5. Give each student the *Introduction to Pressure Injuries* worksheet.

6. Have students complete the worksheet identifying the bony prominences by matching the number with the term.
7. After students have completed the worksheet, have them self-check as you share the answers from the *Introduction to Pressure Injuries* worksheet - Answer Key.

Introduction to Pressure Injuries Scenario

READ the following scenario:

Ms. Johnson is a pleasant 82 year old female who was just admitted to the hospital due to a wound on her coccyx area. She lives alone in a house she has had for 55 years. Her husband passed last year and the only company she has is her beloved cat named, Lucy. Due to past medical conditions, she has difficulty moving. She spends most of her time in bed watching television or knitting. She states her “bottom has been sore for a long time” and she props herself up with pillows. Lately the pain increased and she noticed bloody sheets where she had been laying. She just wants someone to bandage it so she can get back home.

The health care provider has diagnosed her with a stage III pressure injury - a deep crater with full thickness skin loss and moderate drainage. Treatment will take several weeks. Due to the severity of the wound and her limited mobility, the provider feels she should not return home and be admitted to a long term care facility instead. The provider asks you to discuss this new living arrangement with her.

REFLECT on the situation:

- How do you feel about discussing moving to a long term care facility with Ms. Johnson?
- How do you think Ms. Johnson will feel about not returning home? Why?
- What do you think may happen if she does return home?

SHARE your thoughts with a peer

Introduction to Pressure Injuries

Scenario Instructor Resource

READ the following scenario:

Ms. Johnson is a pleasant 82 year old female who was just admitted to the hospital due to a wound on her coccyx area. She lives alone in a house she has had for 55 years. Her husband passed last year and the only company she has is her beloved cat named, Lucy. Due to past medical conditions, she has difficulty moving. She spends most of her time in bed watching television or knitting. She states her “bottom has been sore for a long time” and she props herself up with pillows. Lately the pain increased and she noticed bloody sheets where she had been laying. She just wants someone to bandage it so she can get back home.

The health care provider has diagnosed her with a stage III pressure injury - a deep crater with full thickness skin loss and moderate drainage. Treatment will take several weeks. Due to the severity of the wound and her limited mobility, the provider feels she should not return home and be admitted to a long term care facility instead. The provider asks you to discuss this new living arrangement with her.

REFLECT on the situation:

- How do you feel about discussing moving to a long term care facility with Ms. Johnson?
- How do you think Ms. Johnson will feel about not returning home? Why?
- What do you think may happen if she does return home?

SHARE your thoughts with a peer:

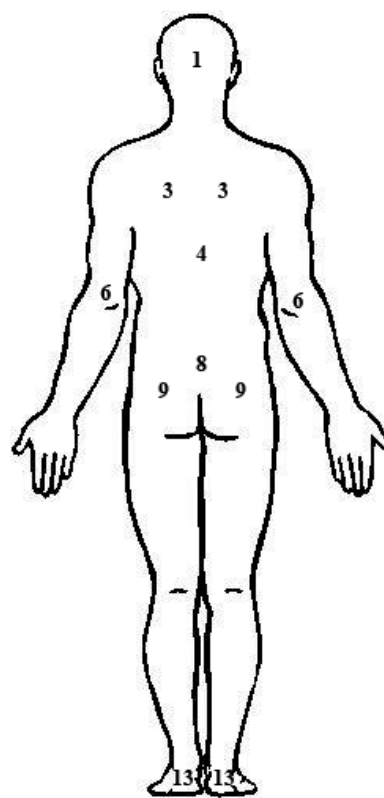
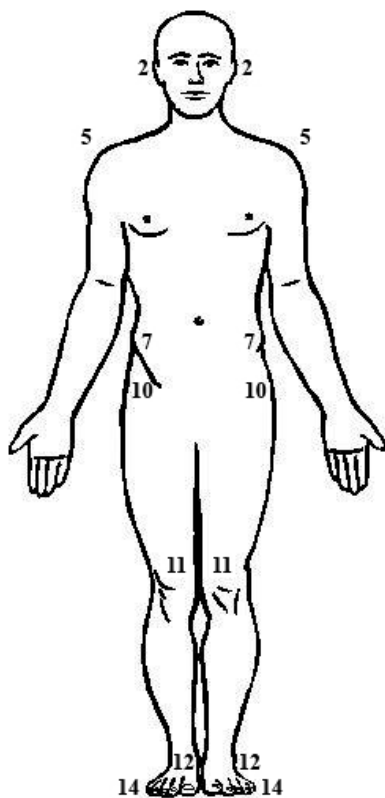
- *Validate that this is a hard conversation to have with a patient. It is important to think about what and how you are going to discuss the topic before entering the room. Be ready to listen to the patient’s concerns and comfort if needed.*
- *Ms. Johnson most likely will be upset. By moving, she will leave memories of her life and need to find a home for her cat. It is essential to discuss her reasons to stay at home as well as discuss her current medical needs.*
 - *You may split the class in half. One side represent Ms. Johnson’s feelings and the other side represents the health care provider’s feelings.*
- *If she returns home, she has a high risk of infection, pain, increased mobility problems, self care issues and non-healing of the wound.*

Introduction to Pressure Injuries

Pressure injuries, otherwise known as pressure injuries, are an injury to the skin or underlying structures usually over a bony prominence caused by prolonged force. This force compresses tissue and hinders blood flow to that portion of the body.

Exercise: Identify the bony prominences below by matching the number with the term.

- _____ Toe
- _____ Ear
- _____ Elbow
- _____ Knee
- _____ Trochanter
- _____ Pelvis
- _____ Occiput
- _____ Coccyx
- _____ Iliac Crest
- _____ Scapula
- _____ Shoulder
- _____ Heel
- _____ Malleolus
- _____ Spinous Process



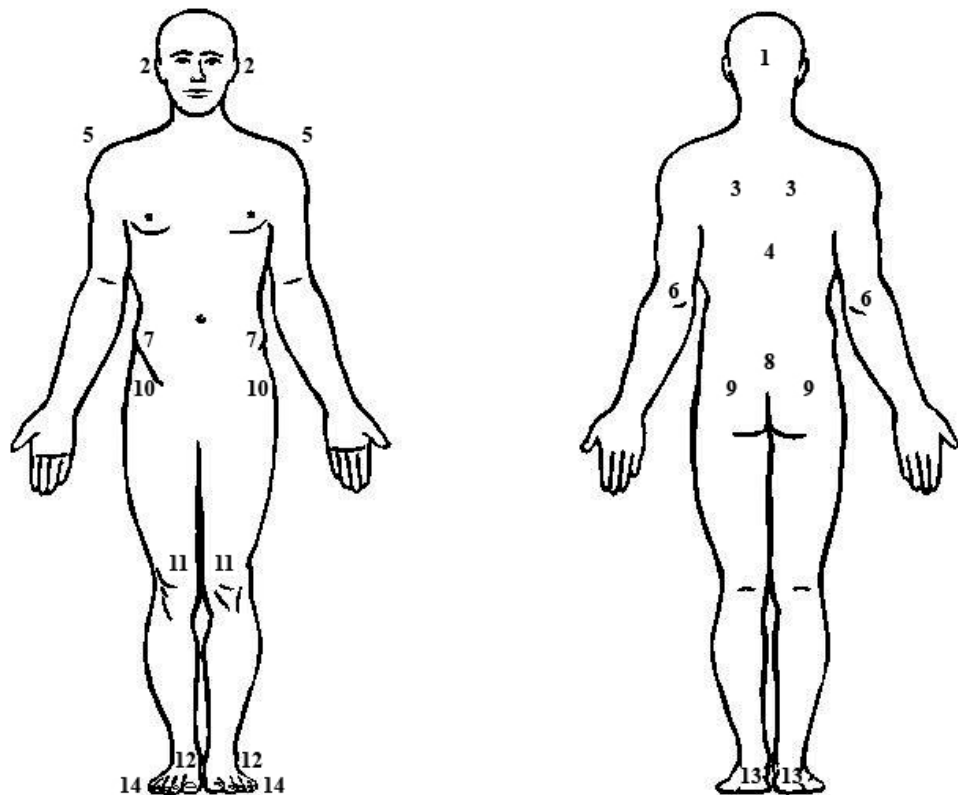
Open source picture: http://www.clipartpanda.com/clipart_images/12-outline-of-human-body-34636805
Reference: National Database of Nursing Quality Indicators (2016). Pressure Ulcer Training. Retrieved from <https://members.nursingquality.org/NDNQIPressureUlcerTraining/Default.aspx>

Introduction to Pressure Injuries - Answer Key

Pressure injuries, otherwise known as pressure ulcers, are an injury to the skin or underlying structures usually over a bony prominence caused by prolonged force. This force compresses tissue and hinders blood flow to that portion of the body.

Exercise: Identify the bony prominences below by matching the number with the term.

- 14** Toe
- 2** Ear
- 6** Elbow
- 11** Knee
- 10** Trochanter
- 9** Pelvis
- 1** Occiput
- 8** Coccyx
- 7** Iliac Crest
- 3** Scapula
- 5** Shoulder
- 13** Heel
- 12** Malleolus
- 4** Spinous Process



Open source picture: http://www.clipartpanda.com/clipart_images/12-outline-of-human-body-34636805
Reference: National Database of Nursing Quality Indicators (2016). Pressure Ulcer Training. Retrieved from <https://members.nursingquality.org/NDNQIPressureUlcerTraining/Default.aspx>

LEARN: Pressure Injuries Slide Presentation

20 minutes

Purpose:

Participants will learn about contributing factors, location and assessment of pressure injuries.

Materials:

- *Introduction to Pressure Injuries* slide presentation

Facilitation Steps:

1. Tell students to keep their handouts from the Focus part of the lesson as reference for use during the slide presentation.
2. Share the following information with students as you complete the slide presentation:

Slide 2: See *Introduction to Pressure Injuries* worksheet. Discuss locations of bony prominences.

Slide 3: According to the Agency for Healthcare Research & Quality (AHRQ) as part of the US Department of Health and Human Services, pressure injuries are one of the most common health conditions in the United States. It is costly for patients, families and health care systems.

Slide 4:

Pressure - Have students press down vertically on the tip of their finger (or palm if skin color is dark). Have them note that it turns white with pressure thus occluding the blood supply to the area. When pressure is relieved, the skin color returns. This is called blanching. Example of pressure is sitting in the same position.

Shear - Have the students rub the area slowly parallel to the skin surface (slide finger against finger or palm). The same

happens. Example of shear is a patient sliding down in bed.

Friction - Have the students rub their thumb and pointer finger together back and forth. The same happens. Example of friction is the rubbing of a brace on the body.

Slide 5: In addition to pressure and shear, the risk for a pressure injury increases if the patient also has:

Age - older patients tend to have more risk factors

Impaired tissue perfusion/oxygenation - some diseases such as diabetes affect the blood vessels thus causing perfusion and oxygenation issues

Poor nutrition - patients lacking proteins, vitamins and minerals are at risk

Incontinence - moisture compromises the protective barrier of the skin and overhydrates it making it susceptible to breakdown

Loss of sensation - decreases the patient's ability to respond to increased pressure

Immobility - restricts a patient's ability to change and control positions. It can increase pressure over bony prominences.

Lack of activity - a person who is restricted to bed is at a greater risk than a person who is partially or fully mobile.

Slide 6: The Braden Scale for Predicting Pressure Sore Risk is among the most widely used tools for predicting the development of pressure injuries
<http://www.bradenscale.com/images/braden-scale.pdf>

Slide 7: It is important to observe every area of the skin. Working head to toe is an efficient manner.

If there is a reddened area, check for a blanch response. If the skin color returns, continue to monitor the area but it is not a pressure injury yet.

Warmth and swelling can indicate an infected area. Patients with darkly pigmented skin cannot be assessed for pressure injuries by solely examining the skin color.

Pressure injuries can be very painful. It is important to treat and document the patient's pain related to an injury.

Mechanical devices such as nasal cannulas (tubing that delivers oxygen through the nose), bedpans and braces can cause skin breakdown. Critically ill and pediatric patients have the highest rates of mechanical device pressure injuries.

Slide 8: If the patient has a pressure injury, it is important to document the following:

Anatomic location

Size (length, width and depth in centimeters) Length is head to toe direction, width is side to side direction, there can be multiple depths depending on the wound. When measuring a wound, always wear gloves and do not place measurement device directly onto the wound as this can increase chance of infection. May demo this.

Tracts or tunneling – these are channels going from the wound bed into surrounding tissue. It is important to measure the depth of these using a sterile cotton tip applicator (similar to a Q-tip) May demo this.

Necrotic tissue – This tissue is black in color and is dead tissue. Necrotic tissue is

removed prior to placing a dressing on the wound.

Wound bed (granulation tissue present?) – The bed of the wound should be a beefy red color. This is called granulation tissue and is required for the healing process.

Odor – Noticeable odor can indicate infection.

Pressure injury edges and surrounding skin (redness, warmth, induration (hardness), swelling and signs of infection)

Slide 9: Serous - this is usually found during the healing process

Sanguineous - this indicates fresh bleeding and the amount should be monitored

Serosanguinous - this indicates that the fresh bleeding is stopping and the serous drainage is beginning

Purulent - this indicates infection and should be reported to the health care provider

Slide 10: Accuracy in pressure injury staging is important for prompt and appropriate care.

Slide 11: Stage I pressure injuries may be difficult to detect in patients with dark skin tones. May show model as example from the Pressure Injury Simulation Kit.

Slide 12: Stage II: May show model as example

Slide 13: Stage III: May show model as example

Slide 14: Stage IV: May show model as example

Slide 15: Here is a documentation sample.

Lesson One – Introduction to Pressure Injuries

REVIEW: Assessment and Documentation

30 minutes

Purpose:

Participants will learn to accurately assess a pressure injury and document each as well.

Materials:

- *Introduction to Pressure Injuries Assessment* worksheet
- *Introduction to Pressure Injuries Quiz*
- *Introduction to Pressure Injuries Quiz - Answer Key*
- *Pressure Injury Simulation Kit*
- Manikin (if desired)

Facilitation Steps:

Part 1: *Introduction to Pressure Injuries Assessment*

1. Place the pressure injury models from the simulation kit on bony prominences of a manikin. Models may also be placed on a real person if desired. To apply the pressure injury models to a manikin or person, follow the Wound Application and Care Instructions found on the interior of the simulation kit box.
2. Give each student the *Introduction to Pressure Injuries Assessment* worksheet. Have students practice finding and assessing the injuries using the following steps:
 - a. Knock, enter room and provide for privacy.
 - b. Identify yourself with name and title. (student nurse, medical assistant, nurse aide, etc.)
 - c. Wash your hands with sanitizer or soap/water.
 - d. Identify patient by asking name and date of birth. State that you would verify this information with a medical record.
 - e. Explain the procedure to the patient and ask if they have any questions.

- f. Begin assessment at the head and progress to the toes looking at the bony prominences.
 - g. When a pressure injury is found, document the following:
 - Anatomic location
 - Stage of pressure injury
 - Size (length, width and depth in centimeters)
 - Tracts or tunneling
 - Drainage
 - Necrotic tissue
 - Wound bed (granulation tissue present?)
 - Odor
 - Pressure injury edges and surrounding skin (redness, warmth, induration (hardness), swelling and signs of infection)
 - h. When finished with your assessment, ask your patient if they are comfortable and if they have any questions.
 - i. Wash your hands with sanitizer or soap/water and exit the room.
3. Have students compare their documentation with another student. Or you may collect their documentation and grade it separately.

Part 2: *Introduction to Pressure Injuries Quiz*

4. Hand out the *Introduction to Pressure Injuries Quiz* to students. Give them a couple of minutes to complete it.
5. Have students self-check or peer check their answers as you share them from the *Introduction to Pressure Injuries Quiz - Answer Key*.

Introduction to Pressure Injuries Assessment

PART ONE: Practice finding and assessing the injuries using the following steps. Document your findings on the back of this page.

Knock, enter room and provide for privacy
Identify yourself with name and title (student nurse, medical assistant, nurse aide, etc.)
Wash your hands with sanitizer or soap/water
Identify patient by asking name and date of birth. State that you would verify this information with a medical record.
Explain the procedure to the patient and ask if they have any questions
Begin assessment at the head and progress to the toes looking at the bony prominences
When a pressure injury is found, document the following: • Anatomic location • Stage of pressure injury • Size (length, width and depth in centimeters) • Tracts or tunneling • Drainage • Necrotic tissue • Wound bed (granulation tissue present?) • Odor • Pressure injury edges and surrounding skin (redness, warmth, induration (hardness), swelling and signs of infection)
When finished with your assessment, ask your patient if they are comfortable and if they have any questions
Wash your hands with sanitizer or soap/water and exit the room

Name: _____ Class: _____

Introduction to Pressure Injuries Quiz

Select the best answer to the following multiple-choice questions:

1. Which of the following is a risk factor for a pressure injury?
 - a. Skin moisture
 - b. Shear
 - c. Immobility
 - d. All of the above
2. When completing an assessment, what location would you most likely find a pressure injury?
 - a. Coccyx
 - b. Mouth
 - c. Hands
 - d. Chest
3. A patient has a partial thickness loss of the dermis on her elbow. It presents as a shallow injury with minimal drainage. How would you interpret this injury?
 - a. Stage I
 - b. Stage II
 - c. Stage III
 - d. Stage IV
4. A patient has a reddened area on his heel. The skin is blanchable. How would you interpret this injury?
 - a. Not a pressure injury
 - b. Stage I
 - c. Stage II
 - d. Stage III
5. How would you document drainage that is thick, pus-like and yellow greenish in color?
 - a. Serous
 - b. Serosanguinous
 - c. Sanguineous
 - d. Purulent

Name: _____ Class: _____

Introduction to Pressure Injuries Quiz - Answer Key

Select the best answer to the following multiple-choice questions:

1. Which of the following is a risk factor for a pressure injury?
 - a. Skin moisture
 - b. Shear
 - c. Immobility
 - d. **All of the above**

2. When completing an assessment, what location would you most likely find a pressure injury?
 - a. **Coccyx**
 - b. Mouth
 - c. Hands
 - d. Chest

3. A patient has a partial thickness loss of the dermis on her elbow. It presents as a shallow injury with minimal drainage. How would you interpret this injury?
 - a. Stage I
 - b. **Stage II**
 - c. Stage III
 - d. Stage IV

4. A patient has a reddened area on his heel. The skin is blanchable. How would you interpret this injury?
 - a. **Not a pressure injury**
 - b. Stage I
 - c. Stage II
 - d. Stage III

5. How would you document drainage that is thick, pus-like and yellow greenish in color?
 - a. Serous
 - b. Serosanguinous
 - c. Sanguineous
 - d. **Purulent**

Sources

Agency for Healthcare Research & Quality (2016). Data Resources. Retrieved from <https://www.ahrq.gov/>

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National Pressure Ulcer Advisory Panel (2016). Educational and Clinical Resources. Retrieved from <http://www.npuap.org/>

Perry, A., Potter, P., & Ostendorf, W. (2014). *Clinical Nursing Skills and Techniques*. 8th Edition. Publisher: Mosby, Inc.

Helpful Links

Braden Scale for Predicting Pressure Sore Risk

<http://www.bradenscale.com/images/bradenscale.pdf>