What are Pressure Sores?

2 credit hour course

Pressure sores, otherwise known as bedsores or pressure ulcers, develop when constant pressure cuts off the circulation to parts of your body that are more vulnerable than others, mainly areas on your buttocks, hips and heels. Without a proper amount of blood flow to the area the skin will become damaged and die.

People who are paralyzed are especially at risk, as well as anyone who is bedridden, uses a wheelchair or is unable to move without help can develop pressure sores. These can and will develop quickly, becoming very difficult to heal. The reality is that many of these bedsores don't have to occur. There are key preventative measures that can maintain the skin's integrity and encourage the healing of pressure sores.

WHAT CAUSES PRESSURE SORES?

In everyday life we do things that we don't even give a second thought to. During a work meeting you may unconsciously shift in your chair, adjust the air conditioning in your car while driving, and turn over in your sleep at night. Each day we are making subtle changes in posture that help to head off problems that may develop from inactivity. However, there are those individuals who have been affected by paralysis, injury or illness that prevent them from moving. Pressure sores become a constant threat for these people.

There are three specific things that cause pressure sores:

1. **Sustained pressure**- When a person's skin and the tissue underneath are trapped between bone and surface such as a bed or wheelchair, blood flow becomes restricted or cut off entirely. This deprives the area of oxygen and other essential nutrients, causing in many cases permanent damage and tissue loss. This tends to occur in areas that are not padded with muscle or fat, lying over a bone, such as the spine, shoulder blades, hips, heals, elbows, and tailbone.
2. **Friction**- Constant changing of position is important to preventing pressure sores. The friction caused by simply moving a position can damage your skin, making it more susceptible to pressure sores.
3. **Shear**- This can occur when the skin moves in one direction and the bone underneath moves in another. Sliding down in bed or a chair or raising the head of your bed more than 30 degrees can also cause shearing, stretching and tearing cell walls and small blood vessels. One area that tends to be greatly affected by shearing is the tailbone where the skin is thin and fragile.

WHO GETS PRESSURE SORES?

Individuals that are immobilized by illness, injury or sedation, even for a short time after an accident or surgery are at risk for getting pressure sores. Those who have long term spinal cord injuries are especially at risk. Because spinal cord injuries can lessen or eliminate sensation, the brain does not receive signals from the body telling a person to shift their position because a sore is developing.

A person who is unable to move without help, the following factors can increase the risk for developing pressure sores:

1. *Age*- Older adults tend to have thinner skin than young people do, making them more susceptible to developing sores from minor pressure. Older adults also tend to heal slower, being made even worse with poor nutrition and health.
2. *Lack of pain perception*- Spinal cord injuries and some diseases cause a loss of sensation. When a person cannot feel pain they are not aware of a sore developing, calling for them to change positions.
3. *Natural thinness/weight loss*-Losing fat and muscle due to inactivity or paralysis prevents your bones from being cushioned properly, leading to pressure sores.
4. *Malnutrition*- People may be more likely to develop pressure sores if their diet is lacking in protein, zinc and vitamin C.
5. *Smoking*- Smokers tend to develop more serious wounds because nicotine impairs circulation and reduces the amount of oxygen in their blood.
6. *Decreased mental awareness*- People who have a disease, trauma or medication reducing their awareness are usually less able to take care of themselves, not taking the action to prevent or care for pressure sores.
7. *Urinary or fecal incontinence*- Bladder control issues greatly increase the risk of pressure sores because the skin stays moist, increasing the chance of skin breakdown. Bacteria from fecal matter not only can cause serious infection but can lead to life-threatening systemic issues.

Sometimes even the most conscientious care can't always prevent serious or life-threatening infections of the skin, muscle or bone. These complications include:

1. *Cellulitis*- This is an infection of the skin's connective tissue, causing pain, redness and swelling. Cellulitis can lead to life-threatening complications, including sepsis and meningitis-an infection of the membrane and fluid surrounding your brain and spinal cord.
2. *Sepsis*- One of the biggest dangers when it comes to pressure sores is sepsis, occurring when bacteria enters the bloodstream through the broken skin and spreads throughout the body. Untreated, this can lead to shock and organ failure.
3. *Bone and joint infections*- These occur when infection from a bedsore burrow deep into joints and bones. This may lead to more serious infections causing function reduction in limbs and joints.

4. *Cancer*- This is normally an aggressive carcinoma affecting the skin's squamous cells.

YOUR ROLE AS A CAREGIVER

When a person develops a wound that does not improve, even with intensive treatment, or there are chronic pressure sores, the doctor may remove a small tissue sample. Tests will determine whether there are any unusual fungi or bacteria. The tissue in many cases will also be checked for cancer, a risk in people that have long standing wounds.

The treatment of pressure sores can be very challenging. Open wounds are very slow to heal, and healing will never be perfect due to the damaged and destroyed tissue.

Your actions as a caregiver are critical in identifying potential pressure sores and eliminating or minimizing their causes. The following are the steps that should be taken:

- If the patient is immobile and bed bound change their position at least every two hours. Some patients will require more frequent shifting. When positioning a patient, take care to avoid friction, such as sliding them. Use lifting devices to avoid dragging them.
- Patients that are bound to wheelchairs should be encouraged to raise themselves off the seat every 15 minutes to relieve pressure. Assist them if needed.
- Encourage the patient to drink plenty of fluids and maintain proper nutrition. Skin breakdowns occur more often with poor nutrition.
- Remove urine and feces from the body immediately. Wash and dry the area as soon as possible.
- When caring for the patient, carefully check areas where pressure sores commonly form. Report any reddened areas immediately.
- Inspect the skin on s daily basis. Report any changes.
- Keep the skin clean and dry at all times.
- Maintain a clean and dry bed. Keep it free of wrinkles and hard objects such as hairpins and crumbs.
- Make sure that the patient is bathed frequently. Avoid hot water and friction.
- Keep skin smooth and well-lubricated with lotion. Do not put directly on sore, do not use alcohol. Pat the lotion on, do not rub it in.
- Do not use lotion on broken skin.
- Separate areas of the body that will rub together, using pillows, foam, and folded blankets.
- Use mechanical aides, such as foam padding, sheepskin, or an alternating pressure mattress, relieving pressure, friction, and shearing.
- Protect high risk areas such as heels and elbows.
- Use a turning sheet to move dependant patients in bed. Avoid friction and shearing on the heels when using the draw sheet to position the patient or move them up in bed.

- Elevate the head of the bed no higher than 30 degrees, to prevent a shearing effect on the tissues. If the patient must have their head elevated, relieve pressure from the buttocks, hips and torso regularly. Turn the patient from side to side at least every 2 hours. You will not be able to turn the patient far enough to use the lateral position, a slight move and shift to the side will be adequate to provide pressure relief. Because the head is up, the patient will not remained positioned for long. Position the patient, and then roll one or more pillows behind the back for comfort and support.
- Carry out range –of-motion exercises at least two times a day to encourage circulation.
- Check any tubing or catheters to be sure they are positioned so as not to be a source of pressure and irritation. Keep nasal and urinary openings clean and free of drainage. Check these areas frequently and carefully.
- Use sheepskin and foam cushions between patients and bottom linen, wheelchair backs, or wheelchair seats where excess pressure may be expected.
- Patients that sit in chairs or wheelchairs, use foam, gel, or air cushions to reduce pressure on buttocks and sacrum. Check patients often for skin problems.
- Patients in bed should have their heels off the bed. Use a pad between the legs when the patient is on their side.
- Report signs of infection, such as fever, odor, drainage, inflammation, or bleeding, to the nurse.

Test Questions

1. Pressure sores are also known as bedsores and _____.

   A. Pressure scabs
   B. Pressure cuts
   C. Pressure ulcers
   D. Pressure welts

2. Areas of the body that are especially susceptible to pressure sores are the hips, heels, and _____.

   A. Elbows
   B. Buttocks
   C. Knees
   D. Back

3. When skin and tissue underneath are trapped between bone and surface for a period of time, this is called _____ ____.

   A. Sustained pressure
   B. Constant pressure
   C. Continuing pressure
   D. Shear pressure

4. Constant changing of position can cause _____.

   A. Clots
   B. Welts
   C. Friction
   D. Bruising

5. _____ can be caused when skin moves in one direction and the bone underneath moves in another.

   A. Sheen
   B. Scars
   C. Scabs
   D. Shear

6. People with spinal cord injuries are especially at risk to develop pressure sores. T F

7. Smokers tend to develop more serious wounds because _____ impairs blood flow and reduces oxygen in the blood.

   A. Smoke
   B. Tar
   C. Nicotine
   D. Arsenic

8. Urinary or _____ incontinence issues greatly increase the risk of pressure sores by keeping the skin moist, creating a greater chance for skin breakdown.

   A. Synaptic
   B. Fecal
   C. Endorphin
   D. Salivary

9. _____ is an infection of the skin's connective tissue.

   A. Cellularity
   B. Cellulitis
   C. Cerebellum
   D. Cellcocous

10. When bacteria enter through broken skin, spreading throughout the body, it is called _____.

    A. Septic
    B. Semis
    C. Septum
    D. Sepsis

11. If a patient is bed bound and immobile, change their position every three hours. T F

12. Patients that are bound to a wheelchair should lift up every _____ minutes.

    A. 15
    B. 20
    C. 25

D. 30

13. Giving patients' hot baths are critical to preventing pressure sores. T F

14. It is recommended to treat open sores with alcohol to reduce chance of infection. T F

15. Separate areas of the body that will _____ together. Pillows and foam wedges work well.

A. Rub
B. Become numb
C. Bleed
D. Flex

16. Protecting high risk areas such as heels and _____ are very important.

A. Fingers
B. Elbows
C. Toes
D. Hands

17. Elevate a bed no more than 40 degrees to avoid sheering. T F

18. Encourage _____ exercises twice a day to improve circulation.

A. Weight room
B. Health club
C. Range of motion
D. Cardio

19. Patients who are bed bound should have their _____ elevated off the surface.

A. Head
B. Elbows
C. Legs
D. Heels

20. If you notice inflammation on the patient's skin, wait 24 hrs to see if it worsens before calling the nurse. T F

How to Apply for Course Credit:

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