In-Service Training Program

Skin Tears: The Enemy of Fragile Skin
OBJECTIVES

1. Define skin tear.
2. Name five functions of the skin.
3. Describe three changes to the skin associated with aging.
4. Outline three management strategies to prevent skin tears.
INTRODUCTION

- Skin tears result when a rip or tear in the skin separates the epidermis from the dermis.
- Skin tears are painful, but preventable.
INTRODUCTION

Consider these statistics:

- More than 1.5 million skin tears occur annually in healthcare facilities
- About fifty percent are due to environmental hazards such as:
  - Wheelchair injuries
  - Accidentally bumping into objects
INTRODUCTION

• Transfers
• Falls
• Tape injuries

➢ The other fifty percent have no known cause

FUNCTIONS OF THE SKIN

As the largest organ of the body, skin has seven specific functions:

1. Absorption: The skin has the ability to absorb fluids and certain drugs and deliver them into the bloodstream. For example, a nitroglycerin patch allows absorption of the drug through the skin and hypodermoclysis delivers fluids to the body through the skin.
FUNCTIONS OF THE SKIN

2. Excretion: Electrolytes and fluids are secreted through the skin, assisting with temperature control.

3. Identification: Fingerprints give each of us an individual identification.
FUNCTIONS OF THE SKIN

4. Metabolism: The skin, when exposed to light, has the ability to synthesize vitamin D, which then activates the metabolism of calcium and phosphate.

5. Protection: The skin guards against infection and excessive fluid loss. The skin has numerous nerve endings, which feel pain, pressure and temperature.
FUNCTIONS OF THE SKIN

6. Storage: The skin has two storage avenues: fat and fluid. About 15 percent of the body’s fluid is contained in the skin.

7. Thermoregulation: One important function of the skin is to control body temperature by vasoconstriction, vasodilatation and perspiration.
LAYERS OF THE SKIN

The skin has three layers:

1. Epidermis: This is the outer layer of skin. Its function is protection.
2. Dermis: This is the middle portion of the skin and is thicker than the epidermis. Its function is to provide nutrition, strength, support, blood, and oxygen to the epidermis.
LAYERS OF THE SKIN

3. Subcutaneous tissue: The portion under the dermis. Its function is to provide an ongoing blood supply to the dermis. This blood supply allows the dermis to rebuild itself.

Each layer also contains connective tissue, with collagen fibers for support and elastin fibers for flexibility and strength.
WHAT HAPPENS TO THE SKIN AS WE GET OLDER?

As we age, we are at increased risk for skin injury. This is because our skin becomes:

- Thinner, due to loss of fatty tissue
- Dryer, due to loss of sweat and oil glands
WHAT HAPPENS TO THE SKIN AS WE GET OLDER?

- Rougher and slacker, because of loss of elastin and collagen
- Paler, because of thinning of the epidermis
- More easily bruised, due to thinning of the blood vessel walls
WHAT HAPPENS TO THE SKIN AS WE GET OLDER?

Other factors that contribute to aging of the skin include:

- Lifestyle
- Diet
- Heredity
WHAT HAPPENS TO THE SKIN AS WE GET OLDER?

- Personal habits (use of tobacco, drugs)
- Exposure to sun
- The amount of stress over time
- Obesity
COMMON CAUSES OF SKIN TEARS

Rubbing or pulling on fragile skin can cause skin tears and break fragile blood vessels. Other common causes include:

- Age
  Aging skin repairs itself more slowly than younger skin; wound healing in the elderly may be only one-fourth as rapid
COMMON CAUSES OF SKIN TEARS

- Autoimmune disorders (HIV/AIDS)
- Dehydration
- Drugs
  - Antibiotics, such as sulfonamides and tetracyclines (exposure to sun can cause rashes)
  - Anticoagulants, such as warfarin (coumadin) or heparin (thins blood vessels, which can cause increased bruising)
  - Aspirin (thins blood vessels)
COMMON CAUSES OF SKIN TEARS

- Local injury or trauma
- Improper lifting techniques by staff
SKIN TEARS: HOW TO CLASSIFY

Skin tears are usually not measured. They are identified either as “partial thickness” or “full thickness” or are classified using the Payne-Martin system. This system, developed in the late 1980s, is divided into three categories:
SKIN TEARS: HOW TO CLASSIFY

Category I- skin tears without tissue loss.

- In a *linear* type Category I skin tear, the epidermis and dermis have been pulled apart, as if by an incision

- In a *flap* type Category I skin tear, the epidermal flap completely covers the dermis to within one mm of the wound margin
SKIN TEARS: HOW TO CLASSIFY

Category II- skin tears with partial tissue loss.

- With a scant tissue loss type Category II skin tear, 25 percent or less of the epidermal flap is lost.
- When more than 25 percent of the epidermal flap is lost, the Category II skin tear is referred to as a moderate to large tissue loss type skin tear.
SKIN TEARS: HOW TO CLASSIFY

Category III- skin tears with complete tissue loss.

- The epidermal flap is absent. ²

PREVENTION OF SKIN TEARS

The best approach is prevention. Consider the following prevention strategies:

- Complete a skin risk assessment for all residents upon admission.
- Implement prevention protocols for residents identified as “at risk” for skin tears.
- Determine whether the resident is receiving adequate nutrition and hydration.
PREVENTION OF SKIN TEARS

- Obtain a dietary consult and encourage the resident to drink plenty of water.
- Use emollient antibacterial soap for bathing and apply cream at least twice a day.
PREVENTION OF SKIN TEARS

- Remind staff not to wear jewelry other than wedding rings. Rings and bracelets worn by staff can cause resident skin tears.
- Remind staff to keep fingernails short.
- Educate staff on the importance of carefully handling residents with frail skin.
PREVENTION OF SKIN TEARS

- Use proper positioning, turning, lifting and transferring techniques (e.g. a lift sheet) to prevent friction or shear.
- Use pads on wheelchair arms, leg supports and other equipment to protect the resident from accidentally bumping into hard surfaces.
PREVENTION OF SKIN TEARS

- Use pillows and blankets to protect and support arms and legs.
- Recommend that residents wear long sleeves and pants to add a layer of protection.
- If siderails are required, pad them for residents who are “at risk” for skin tears.
PREVENTION OF SKIN TEARS

- Use stockinet, gauze wrap or other wrap materials instead of tape to secure dressings, drains or I.V.s.
- If tape must be used, use paper tape and remove it gently.
- Use heel and elbow pads for added protection.
PREVENTION OF SKIN TEARS

- Educate staff and the resident to be careful when maneuvering wheelchairs around corners.
- Check grab bars and handrails for rough edges and splintering.
- Provide a well-lit environment to minimize the risk of residents bumping into equipment or furniture.
PREVENTION OF SKIN TEARS

- Develop a skin tear log to track skin tears. Meet with staff monthly to review results. Work with staff on prevention.
- Provide in-service training to staff at least yearly or when the facility determines there is an increased number of skin tears.
Currently, no optimum treatment for skin tears exists. Therefore, most institutions develop their own protocols based on research, input from healthcare professionals and current standards of practice.
NURSING CARE STRATEGIES

The goals of skin tear management are to:

1. Provide protection from further trauma.
2. Minimize the risk for infection.
3. Promote optimal conditions for healing.
Many skin and wound care products can be used to treat skin tears. Examples include:

- Collagen dressings
- Foams
- Hydrocolloids
- Hydrogels
NURSING CARE STRATEGIES

- Nonadherent dressings
- Petroleum-based gauze
- Petrolatum ointment
- Steri-strips
- Transparent films
The suggested procedure for care of a skin tear is:

1. Carefully clean the skin tear with 0.9 percent sodium chloride solution or another nontoxic wound cleaner.

2. Air dry the area, or pat dry with clean gauze.
NURSING CARE STRATEGIES

3. Approximate the skin tear, if possible.
4. Apply petroleum-based ointment, steri-strips or a moist non-adherent wound dressing.
5. Change the dressing according to the manufacturer’s recommendations. Typically, hydrogels are changed daily; hydrocolloids are changed weekly or as needed; and foams are changed weekly or as needed.
NURSING CARE STRATEGIES

6. Use caution when applying film dressings, as skin damage can occur when the dressing is removed.

7. Place an arrow in the direction of the skin tear so that the person removing it will know in which direction to remove the dressing.
8. Document in the medical record a description and location of the skin tear, treatment and follow-up action. Skin tears should also be addressed in the care plan.
SUMMARY

More than 1.5 million skin tears occur annually in healthcare facilities. Educating staff, residents and families on the causes and effects of skin tears is important.
SUMMARY

Identifying residents “at risk” and applying appropriate preventive measures can decrease the incidence of skin tears and save undue pain and suffering for residents.