SKIN AND WOUND CARE
Continuing Education January 2013

The skin is the largest organ of the body and often the most forgotten. Skin is exposed daily to the environmental risks of irritants, chemicals, as well as to physical and mechanical injury. One such injury is a skin tear, defined as a traumatic wound resulting from separation of the epidermis from the dermis. The skin protects and holds your muscle, bones and organs together. Skin helps protect us from disease, helps keep our bodies at the right temperature and allows us to have a sense of touch. Age related changes occurring with the skin are the most striking with 20% less in the dermal thickness, which may account for the paper-thin appearance of the elderly skin.

Maintaining skin integrity in patients who have frail skin is challenging, even the simplest movement can result in a skin tear. Turning or lifting, which can cause friction may injure the skin. Delicate skin can tear when adhesive dressings or tape are removed. Even ambulating or transferring patients may present a problem if they bump into objects such as chairs, bed, or tables.

There are 3 layers of skin
Epidermis
Dermis
Subcutaneous

Fragile or thin skin that tears easily is a fairly common problem, especially in older adults. Several factors may contribute to thin skin:

1. AGING With increasing age, your skin becomes thinner and loses some of the protective fatty layer that helps cushion your blood vessels against injury. Aging skin is more easily stretched and the skin becomes a less effective barrier against water loss, bruising and infection.

2. SUN EXPOSURE Excessive sun exposure breaks down collagen and elastin fibers in the deep layers of your skin (dermis). Over time, your skin loses elasticity and becomes more fragile.

   Sunburns starting in childhood and through out the adult life, can affect your skin over time.

   Certain medications can make you more susceptible to sunburn within a short period of time in the sun.

   Birth Control Pills and Antibiotics can cause sunburn within a short period of time in the sun.

   High altitude can also cause you to sunburn faster and easier.

   Sunburn occurs more with fair skinned, blonde blue eyed people.

3. GENETICS may play a role in how your skin ages as well as how susceptible it is to sun damage.
4. **SMOKING** can cause your skin to age faster.

5. **SIDE EFFECT OF MEDICATION** certain medications, such as long term use of oral or topical corticosteroids (Prednisone) can weaken skin and the blood vessels in the skin.

6. **CERTAIN MEDICAL CONDITIONS** Such as bleeding disorders and autoimmune diseases (Lupus) can affect the skin.

7. **STRESS** Can cause your skin to age faster.

8. **SLEEP** Lack of sleep can cause your skin to age faster.

**To protect thin skin and prevent tears and cuts:**

1. Wear long-sleeved shirts and long pants

2. Avoid prolonged sun exposure

3. If you must be outside in the sun, use a broad spectrum sunscreen with a sun protection factor (SPF) of at least 15.

4. Keep skin well moisturized and protected by using a moisturizing cream.

**WOUNDS**

Cuts, abrasions and other broken skin heal best when the wound is kept clean and dry. New injuries should be washed well with soap and water and scrubbed with a clean washcloth or gauze if dirt is present. Antibiotic ointment may help prevent infection. Cover broken skin with a clean bandage and change if it becomes soiled or wet. All dressing changes will have Doctor’s order and a caregiver will be trained by the nurse as needed to provide care.

Infected skin may become increasingly red and warm, or has pus coming from the area may be infected. Some infections are so minor that keeping the area clean and dry will promote healing in a few days. Increase despite care or sudden worsening, requires immediate evaluation by a physician.

**Treatment of Skin Infections**

1. Follow instructions carefully for taking medication, if any is prescribed.

2. Keep in contact with the Care Counselors and Director of Nursing if infection appears to be getting worse or there is a problem with medication.

3. Keep wounds covered and dispose of soiled bandages properly.

4. Wash hands before and after working on a wound. Wear gloves when doing a dressing change.
Further Precautions for Patients with MRSA (Methcillin resistant Staph aureus)

1. Inform all other family members and staff with close contact to the patient to seek care if they get a suspicious looking infection. Wear gloves when providing personal care to a client with MRSA.

2. Housecleaning with industrial cleaning solutions or household bleach, 1 part bleach to 10 parts water should decontaminate floors, tubs, sinks, etc.

3. If the infection appears to be worsening seek medical care immediately. MRSA infection can spread from superficial skin to deeper tissue and organs. Some patients may require hospitalization and treatment with intravenous antibiotics.

4. Publicity surrounding highly unusual causes which result in death reminds us how important it is to have these infections followed closely.

PREVENTION

1. Do not share personal items such as razors, towels, washcloths, or even bedding without washing.

2. Maintain the environment at home with frequently touched surfaces by sanitizing regularly.

3. Use liquid soap, not bar soap in shared bathrooms. Hand sanitize if no soap and water nearby.

4. Care for wounds and injuries so that they are covered and protected from bacteria.

Avoid the 5 C’s

Crowding
Contact (skin to skin)
Compromised skin (ie cuts/abrasions
Contaminated items
Cleanliness not up to standard

BEDSORE SYMPTOMS

Bedsores fall into one of four stages based on their severity:

Stage I Pressure sore begins as a persistent area of red skin that may itch or hurt. May feel warm to the touch. The area may appear to have a blue or light purple cast to it or appear flaky or ashen in color. Stage I wounds are superficial and go away shortly after pressure is relieved.

Stage II At this stage, some skin loss may occur to the outermost layer of the skin (epidermis). The wound is now open and may leak like a blister. Surrounding areas of the skin may now appear to have a blue or purple color to it.

Stage III At this time a pressure ulcer reaches this stage, the damage has extended to the tissue below the skin, creating a deep crater around the wound.
**Stage IV** This is the most serious and advanced stage. A large scale loss of skin occurs, along with damage to underlying muscle, bone, and even supporting structures such as tendons and joints.

When the patient is bed bound, pressure sores can occur in any if these areas:

The back or sides of the head  
The rims of the ears  
The shoulders or shoulder blades  
The hipbones or tailbone area.  
The Elbows

When the patient is confined to a wheelchair pressure sores can occur in any of these areas:

The tailbone or buttocks  
The shoulder blades and spine  
The elbows, back of the arms and legs where they rest against the wheelchair.

**CAUSES**

**Sustained Pressure** - is when the skin and underlying tissues are trapped between bone and a surface, such as a wheelchair. This deprives the tissue of oxygen and other nutrients that can cause irreversible damage to the skin.

Wrinkled clothing (seams in jeans) wrinkled bedding, perspiration may cause bedsores.

**Friction** - Frequent shifts in position are the key to preventing pressure sores. Yet friction that occurs when you simply move from side to side can damage the skin, making it more susceptible to injury.

**Shear** - When the patient moves in one direction, and the underlying bone moves in another direction. Sliding down in a bed or chair, or raising the head of the bed more than 30 degrees can cause shearing. This stretches and tears cell walls and tiny blood vessels.

**Risk Factors**

- Age  
- Residence in a nursing home  
- Lack of pain perception  
- Natural thinness or weight loss  
- Malnutrition  
- Urinary or fecal incontinence

**Complications**

**Cellulitis**- Acute infection of the skin’s connective tissue. Causes pain, redness and swelling, all of which can be severe. May lead to severe complications such as sepsis and meningitis
Bone and joint infections - These develop when the infection from a bedsore burrows deep into the joints and bones. Joint infections can damage cartilage and tissue, where as bone infections may reduce the function of joints and limbs.

Sepsis - is one of the greatest dangers of an advanced pressure sore. Sepsis occurs when bacteria enters the blood stream through broken skin and spreads throughout the body. It can rapidly progress and cause life threatening conditions that cause shock and lead to organ failure.

Prevention

Changing positions often
Using support surfaces
Cleaning the affected area- Stage I
Nutrition

CAREGIVERS

• Broken skin requiring a dressing change, i.e. band aide and antibiotic ointment, is considered a dressing change by the State. Nursing MUST be notified and care will be approved and written up.
• Contact the Care Counselor or Director of Nursing immediately if you notice any skin tears, broken skin or open sores. The patient should be seen by their physician immediately.
• Follow physician orders for care of skin tears/bedsores
• Document all wound care procedures
• Notify the Care Counselor and Director of Nursing if there is a change

Thank you for your Co-operation!!