INTRODUCTION

The purpose of this section is to help the learner acquire a more comprehensive understanding of the importance of skin care needs in view of age-related changes and general health conditions of the resident.

KEY TERMS

- Epidermis
- Dermis
- Subcutaneous tissue
- Thinning
- Circulatory changes
- Skin breakdown
- Friction/ shearing
- Pressure sores
OBJECTIVES

- The learner will be able to:
  - Describe age-related changes to skin;
  - Describe the warning signs of skin breakdown;
  - List the causes of skin breakdown;
  - Understand why pressure sores are easier to prevent than to treat;
  - List interventions that prevent the development of pressure sores;
  - Describe what actions must be taken if a resident develops a pressure sore.

INTRODUCTION

- The skin shows the earliest signs of aging:
  - Exposure to sunlight and harsh environmental conditions speeds up the aging process of the skin, especially of the face, neck and hands.
- The skin is composed of three layers that:
  - Epidermis or the outer layer;
  - Dermis, which is the thick middle layer; and
  - Subcutaneous tissue, the inner layer of fat.

INTRODUCTION CONTINUED

- Skin:
  - Protects the body from infection and trauma;
  - Helps regulates body temperature and fluids;
  - The nerve endings in the epidermis alert the brain to pain, pressure and other stimuli.
- Skin care involves:
  - Good hygiene;
  - Good nutrition;
  - Exercise; and
  - Preventive measures.
INTRODUCTION CONTINUED

- Care of older skin also involves monitoring the skin for signs of:
  - Trauma;
  - Infection; or
  - Breakdown:
    - Early discovery and treatment of skin problems can prevent serious complications.

AGE-RELATED CHANGES

- Aging skin is more susceptible to injury and slower to heal because:
  - Thinning of the skin, especially on the back of the hands and forearms and the bottoms of the feet:
    - Increases tenderness and the risk of injury;
    - As the layer of fat is reduced, the skin loses its insulating qualities:
      - Consequently, the body is less able to adjust to extremes in temperature.

AGE-RELATED CHANGES CONTINUED

- The reduction of sweat glands affects the body’s cooling ability, increasing the risk of heat stroke and heat stress;
- Dry skin due to decreased production of oil from sebaceous glands causes the skin to dry and contributes to reduced elasticity:
  - The skin tends to wrinkle and sag, is easily bruised and bumps and scrapes tend to tear it;
  - Dry skin is also more sensitive to chemical irritants, infection and poor hygiene.
- Changes in appearance such as liver or age spots appear on the face, arms and back of hands;
**AGE-RELATED CHANGES CONTINUED**

- Hair whitens due to loss of pigment;
- Facial hair appears around the mouth and chin of women and in the ears and nostrils of men;
- Nails thicken and become brittle;
- Circulatory changes:
  - Decreased blood flow to the skin slows healing, reduces sensitivity to hot and cold temperatures and increases the risk of pressure sores. Poor circulation is indicated by hands and feet that are cold to the touch;
  - Circulatory problems, combined with prolonged pressure, result in death of skin cells and ulceration.

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**SKIN BREAKDOWN**

- The elderly are at risk for pressure ulcers (or decubitus ulcers) because:
  - Their circulation is poorer, their skin is thinner and drier and there is less fatty tissue to cushion it.
  - Older skin is easily injured and slower to heal.
  - If a pressure site or injury is not properly treated, death of cells can lead to ulceration.

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**WARNING SIGNS**

- Skin may look normal, even when tissue underneath is damaged:
  - It may take a week before tissue damage is noticed.
- A common *early* warning sign of skin breakdown is:
  - Any area that remains reddened for more than an hour.
  - For dark skin, appearance is mahogany or blue-brown in color and shiny.
WARNING SIGNS CONTINUED

- Do not massage:
  - Rubbing increases tissue damage and makes skin pinker, redder or warmer;
  - Consult a health care professional immediately after discovering a pressure sore area, or observing any unusual appearance of the skin.

AREAS SUBJECT TO PRESSURE SORE FORMATION

<table>
<thead>
<tr>
<th>Area</th>
<th>Most common site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailbone (coccyx)</td>
<td></td>
</tr>
<tr>
<td>Heel</td>
<td>Second most common site</td>
</tr>
<tr>
<td>Hip joint (ischium)</td>
<td>Third most common site</td>
</tr>
<tr>
<td>Ankle bone</td>
<td>Fourth most common site</td>
</tr>
<tr>
<td>Back of head</td>
<td></td>
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<tr>
<td>Ears</td>
<td></td>
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<tr>
<td>Shoulders</td>
<td></td>
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<tr>
<td>Shoulder blade (scapula)</td>
<td></td>
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<tr>
<td>Elbow</td>
<td>Caused by leaning or propping</td>
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<tr>
<td>Hips</td>
<td></td>
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<tr>
<td>Knees</td>
<td></td>
</tr>
<tr>
<td>Lower leg</td>
<td></td>
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<tr>
<td>Foot (lateral edge)</td>
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CAUSATIVE FACTORS

- Pressure:
  - Prolonged pressure of the body against a surface, or an object against the body, causes pressure sores to develop.
  - Common problem sites are where there is a bony prominence (e.g., tailbone, heels and elbows). 
    **Breakdown can begin after just 30 minutes of continuous pressure**: 
    - Sitting or lying in one position hinders blood circulation to areas of skin in contact with the surface. For example, people who are bed-bound and lie with the head of the bed raised often develop sores on the tailbone.
**CAUSATIVE FACTORS CONTINUED**

- Crutches, braces and similar equipment cause pressure against the skin.
- Wrinkled sheets and poorly fitted clothes cause pressure points and irritate sensitive skin.

**Friction and shearing:**
- Occurs when a person’s body rubs against a surface or an object rubs against the skin tearing (shearing) the skin or creating a friction burn;
- Friction burns and shearing can occur when the person is transferred incorrectly:
  - For example, sliding a resident up in bed can scrape or tear dry, tender skin.

**CAUSATIVE FACTORS CONTINUED**

- Moisture:
  - Prolonged exposure to moisture from sweat and incontinence changes the protective nature of skin and increases the risk of rashes or fungal infection;
  - Damp skin becomes swollen, soft and irritated and, thus, is easily damaged.
- Dehydration and poor diet:
  - Adequate fluid intake is essential in maintaining skin;
  - Water and foods rich in protein and vitamins help the body resist trauma, fight infection and promote healing.

**CAUSATIVE FACTORS CONTINUED**

- Body weight:
  - Being over/under weight increases skin breakdown.
- Illness:
  - Diabetes, heart disease and poor circulation increase the risk of skin breakdown.
- Limited mobility and awareness:
  - A resident’s willingness and ability to engage in activities may be reduced by pain, sedation, low energy, or motor or cognitive deficits;
  - May ignore warning signs of skin injury or irritation.
**CAUSATIVE FACTORS CONTINUED**

- **Irritants:**
  - Chemicals (including urine) and other substances such as soap can irritate and inflame the skin;
  - Allergic reactions can produce rashes. A decubitus ulcer can form at the site of irritation.

- **Injury:**
  - Risk of skin breakdown increases at the site of an injury:
    - For example, a burn from a heating pad, a minor scratch, bruise or scrape can develop into a decubitus ulcer if not properly treated.

**PRESSURE SORE PREVENTION**

- As a foster home provider you and your caregivers are responsible for the well-being of the residents in your care:
  - Pressure sores are preventable with quick response when you see any changes in, or breakdown of, a resident's skin.
  - *It is easier to prevent pressure sores than to treat!*
PRESSURE SORE PREVENTION CONTINUED

- Avoid prolonged pressure:
  - Remind or help the resident to change position at least every two hours:
    - If an area stays inflamed for more than five minutes, reduce time for changing position by 30 minutes.
  - Shifting positions redistributes pressure onto other areas. The resident should relieve pressure on the tailbone (from sitting or lying) every 20 to 30 minutes by pushing up with the arms, shifting from side to side, or leaning forward with the feet on the floor.

PRESSURE SORE PREVENTION CONTINUED

- Encourage mild exercise and activities that do not involve sitting for long periods of time.
- Avoid skin scrapes from friction:
  - Get help or use a lift sheet to turn and move a resident in bed. Follow safe transfer procedures.
  - Do not drag or slide resident across supporting surfaces.
  - Do not elevate the head of the bed more than 30 degrees other than for eating. This will prevent sliding in bed and reduce pressure on the tailbone.

PRESSURE SORE PREVENTION CONTINUED

- Prevent the resident from sliding down in the wheelchair.
- Be sure bedding and clothing under pressure areas (e.g., tailbone, elbows and heels) are clean, dry and free of wrinkles and any objects.
- Watch for skin problems around rings and other jewelry:
  - Jewelry, if too large, can rub the skin;
  - Moisture can get trapped underneath jewelry, especially rings and watchbands.
**PRESSURE SORE PREVENTION CONTINUED**

- Protect skin areas over protruding bones and where two skin surfaces rub together:
  - Protect the skin with clothing and special pads for elbows and heels. **Cushions do not replace frequent position changes.**
- Protect fragile skin from being scratched:
  - Keep fingernails (yours as well as the resident’s) and toenails short. Long toenails can scratch the resident’s legs.

**PRESSURE SORE PREVENTION CONTINUED**

- Protect skin from moisture and irritants:
  - Keep skin dry. Be aware of moisture sources, including baths, rain, perspiration and spilled foods/fluids;
  - Watch for skin irritation from detergent residues left in clothing and bedding.
- Watch for allergic reactions (rashes):
  - Health and personal care products can cause allergic reactions. For example, some people are allergic to incontinent pads.

**MANAGING PRESSURE SORES**

- Sometimes pressure sores develop despite prevention efforts:
  - Pressure sores can create a sense of hopelessness and helplessness on the resident, family and you;
  - A resident may feel frightened and discouraged;
  - The pain, infection and depression often lead to worsening of the resident’s general health and stamina;
  - Understand and respond to the resident’s feelings;
  - Assure the resident that concerned professionals will give proper treatment in a sensitive manner.
If you notice that a resident has, or is developing, a pressure sore, call their health care practitioner right away:

- The location of the sore: Where is the sore located on the resident’s body?
- What it looks like: Is it red or swollen; are the edges one color and the center of the sore another color?
- Does the sore smell?
- Is the sore warmer than the surrounding skin?
- Does the sore look infected?

The purpose of treatment is to heal the pressure sore; reduce harm to the area around the sore and the resident’s overall health:

- Treatment focuses on keeping the pressure sore from getting worse and on making the skin healthy again.

The caregiver’s role in treating pressure sores is to:

- Follow the health care practitioner’s instructions:
  - The resident’s health care practitioner may order home health or have the resident seen in a wound clinic.
- Eliminate any pressure. If a pressure ulcer is to heal, keep weight and pressure off of it.
- Keep the affected area clean:
  - When treating a pressure ulcer, wear disposable gloves.
  - Use special care to wash your hands before and after treating each ulcer.
MANAGING PRESSURE SORES CONTINUED

- Do not use any topical ointment or cleanser without direction from a health care practitioner;
- Protect the area from further damage. Reduce exposure to friction, irritation and moisture;
- Keep the resident's bed and clothing dry and clean;

MANAGING PRESSURE SORES CONTINUED

- Document observations, orders and the resident's response to treatment. Keep an accurate account from the time the pressure ulcer is discovered:
  - Date;
  - Location of the ulcer;
  - Stage of the pressure ulcer (a nurse or doctor determines the stage);
  - Size of ulcer determined by a measuring guide (this helps in evaluating success or failure of treatment);
  - Presence of an odor, drainage (describe, such as "blood tinged") or inflammation;
  - Physician's or nurse practitioner's orders for skin care.

STAGES OF PRESSURE SORE FORMATION

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage I</td>
<td>Reddened only.</td>
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<tr>
<td>Stage II</td>
<td>Reddened with skin break. Blistering and stripped of skin.</td>
</tr>
<tr>
<td>Stage III</td>
<td>Full thickness loss of skin that may or may not include subcutaneous tissue and drainage.</td>
</tr>
<tr>
<td>Stage IV</td>
<td>Full thickness loss of skin and with invasion of deeper tissues.</td>
</tr>
</tbody>
</table>
Stages of Pressure Sores

Stage I
Stage II
Stage III
Stage IV

DISCUSSION/QUESTIONS