

Incontinence Associated Dermatitis

Faculty

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Objectives

- The participant will be able to:
 - Discuss the function of skin
 - Identify the three layers of skin
 - Identify common skin problems related to incontinence
 - Discuss prevention and treatment strategies for skin breakdown due to incontinence

Skin is an Organ

- Did you know the skin is an organ?
 - Largest organ
 - Heaviest organ
 - 15% of body weight
 - In a 150 pound person, the skin weighs about 12 pounds and can cover 18 square feet

Skin is an Organ

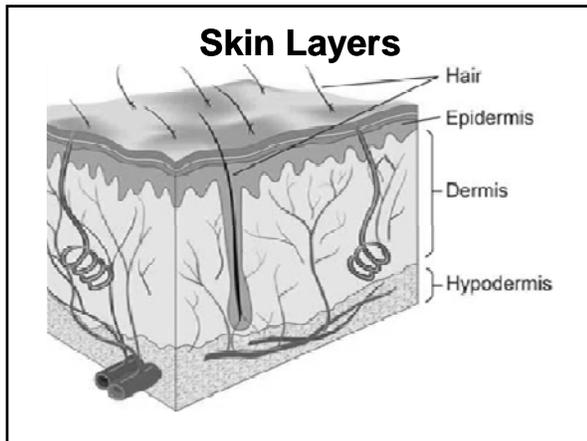
- 1 square inch of the skin contains:
 - 100 sebaceous glands
 - 65 hairs
 - 78 yards of nerves
 - 650 sweat glands
 - 19 yards of blood vessels

Skin is an Organ

- 9,500,000 cells
- 1,300 nerve endings
- 20,000 sensory cells
- 32,000,000 bacteria

Skin Layers

- Epidermis
- Dermis
- Subcutaneous tissue

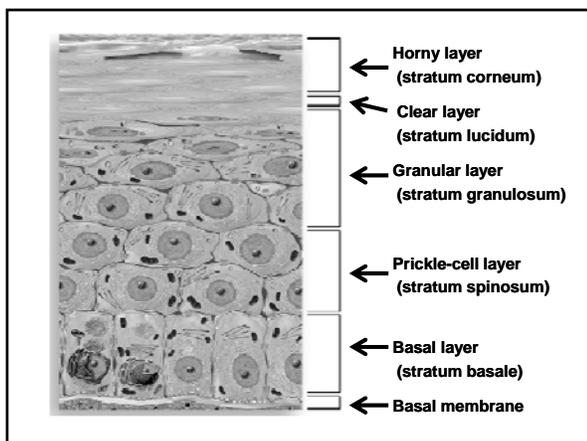
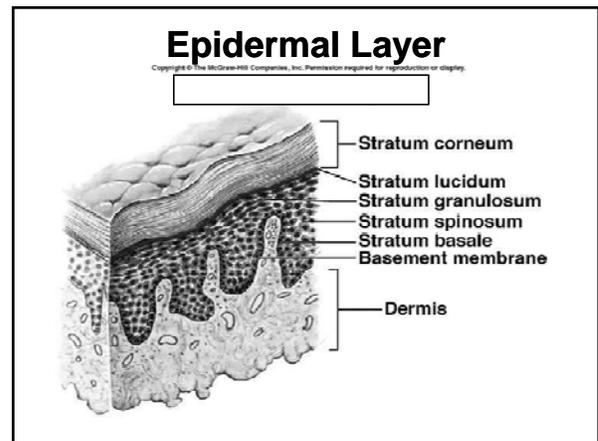


Epidermis

- There are 5 layers in the Epidermis
 - Stratum corneum
 - Stratum lucidum
 - Stratum granulosum
 - Stratum spinosum
 - Stratum basale

Stratum Corneum

- Outside layer
- Provides protection
- Sloughs off about every 2 weeks
- Call the “horny” or “crusty” layer



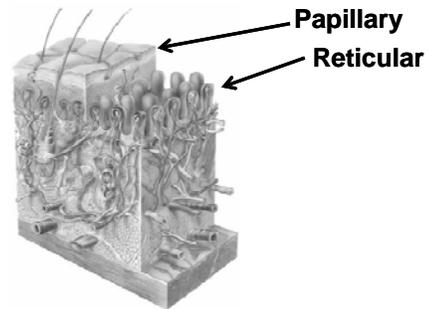
Layers of the Dermis

- Papillary
 - Contains a thin arrangement of collagen fibers
- Reticular
 - Thicker and made of thick collagen fibers that are arranged parallel to the surface of the skin

Specialized Cells and Structures

- Hair follicles
- Muscles on each hair follicle
- Oil, sebaceous, and sweat glands
- Blood vessels
- Lymph vessels
- Nerves

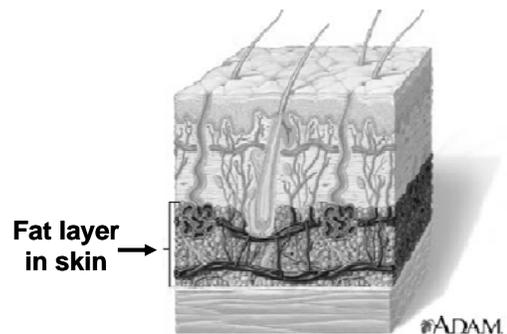
Specialized Cells and Structures



Subcutaneous Tissue

- Primarily consists of fat cells
- Shock absorber and heat insulator
- Structures
 - Muscles attached to hair follicles
 - Sweat glands
 - Blood vessels
 - Lymphatic system
 - Nerves

Subcutaneous Layer



Incontinence

- The involuntary leakage of urine or stool
- Urinary
 - Loss of bladder control
- Fecal
 - Loss of bowel control

What Causes Incontinence?

- Constipation
- Diet
- Gastrointestinal disease
- Hormone imbalance
- Weakness or loss of pelvic muscle function
- Loss of mobility

What Causes Incontinence?

- Mental changes
- Prostrate disease
- Spinal cord injury
- Urinary track infections

Incontinence

- Chronic exposure to moisture
- Breaks down alkaline pH
- Overgrowth or infection with pathogens
- Friction

Problems Caused By Incontinence

- Infections
 - Bacterial and yeast
- Incontinence Associated Dermatitis (IAD), skin excoriation, and skin breakdown
- Pressure ulcers

Skin Infection: Yeast / Fungal

- Any area, usually skin fold
- May create its own moisture
- Fiery red, white coated
- Satellite lesions
 - Red spots scattered at the edges

Skin Infection: Management

- Keep skin and folds clean and dry
- Maximize air to the area
- Use antifungal powder or cream
- Oral antifungal

Incontinence Associated Dermatitis

“Skin inflammation manifested as redness with or without blistering, erosion, or loss of the skin barrier function that occurs as a consequence of chronic or repeated exposure of the skin to urine or fecal matter”

– Michael Gray defined PhD, FNP, PNP, CUNP, CCCN, FAANP, FAAN

Incontinence Associated Dermatitis

- Located where skin is in contact with urine or feces
- Initially may be bright red and weepy
- Later dark red / purple, or white
- Dry peeling skin like sunburn

Incontinence Associated Dermatitis

- No satellite lesions unless also has fungal
- Not confined over a bony prominence
- Burning, itchy, tingling, or painful

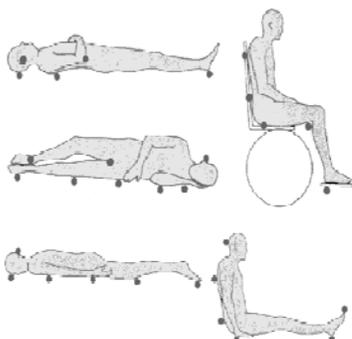
IAD: Management

- Treat cause of incontinence
- Prevent skin breakdown
 - Daily skin check
 - Prompt cleaning
 - Protect skin at risk
- Treat skin breakdown

Pressure Ulcer

- Pressure ulcer
 - Over bony prominence
 - Coccyx, usually round or oval
 - Sacral or ischium, butterfly or oval if only on one side
 - Well defined edges, no satellite lesions

Pressure Ulcer



Pressure Ulcer Management

- Relieve or reduce pressure
- Keep wound clean
- Maintain moisture in the wound bed
- Protect wound edges
- Do not massage

Prevention and Treatment of Skin Breakdown

- **TREAT** the incontinence
- **DAILY** check the skin
- **PROMPTLY** clean the skin

Treatment: Urinary Incontinence

- **Assessment**
- **Determination of type of incontinence**
- **Address the root cause**
- **Effective management**

Prevention and Treatment of Skin Breakdown

- **GENTLY** wipe skin when cleaning
- **USE** product with acidic pH like normal skin
 - 5.5
- **PROTECT** with moisture barrier

Linens, Diapers, Chux...

- **Limit linen usage under patient**
 - No more than 2 layers
- **No diaper**
 - Keeps moisture against the skin
 - Only use when up in chair or walking

Linens, Diapers, Chux...

- **Chux (blue) pads**
 - They wick moisture away so skin can dry
 - Patient needs to lie on top of pad
 - Do NOT put pad under linen
 - Do NOT use pad as diaper

Check the Skin

- **Check the skin daily**
- **Observe skin in perineal area on all patients**
 - Take special note of patients who are bed or chair bound
 - Take special note of patients who are incontinent
- **Report any changes to caregiver and supervisor**

Clean the Skin

- **Clean skin immediately after urine or fecal leakage**
- **Use disposable perineal wipes or mild soap and warm water**
- **Do not rub or scrub**

Clean the Skin

- **Rinse well**
- **Pat dry the skin and skin fold**
 - **Do not rub**
- **Frequent baths will remove natural oils and increase skin dryness**
 - **pH balanced body cleansers**
 - **Soap**

Clean the Skin

- **Cleanse only when soiled**
- **Bath water should be warm**
 - **Not hot!**
- **Minimal force**
 - **No vigorous scrubbing**

Protect

- **Moisturized skin = healthy skin**
- **Loss of moisture from epidermis causes dryness**
- **Moisturizing prevents itching**
- **Apply lotion to damp skin**
 - **Locks in moisture**
 - **Apply daily**

Protect

- **Use emollients to soften and soothe skin but do not macerate**
 - **Add too much moisture**
- **Expose the area to air for 30 minutes, 2 - 3 times a day**
- **Apply skin protectorant**
 - **Dimethicone, petrolatum, or zinc oxide**