

Incontinence Associated Dermatitis

**Satellite Conference and Live Webcast
Wednesday, January 22, 2014
2:00 – 4:00 p.m. Central Time**

**Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division**

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**

Function of the Skin

Protection and immune response



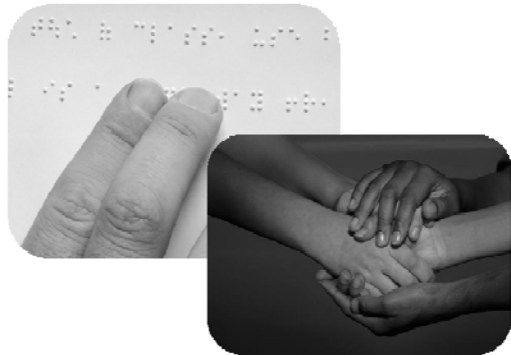
Protection Against Dehydration



Body Temperature Regulation



Sensation



Storage and Metabolic Functions



Absorption



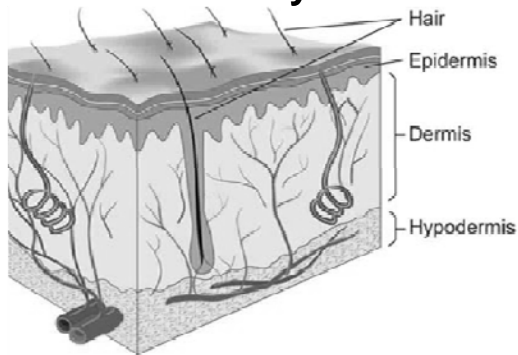
Excretion



Skin Layers

- Epidermis
- Dermis
- Subcutaneous tissue

Skin Layers



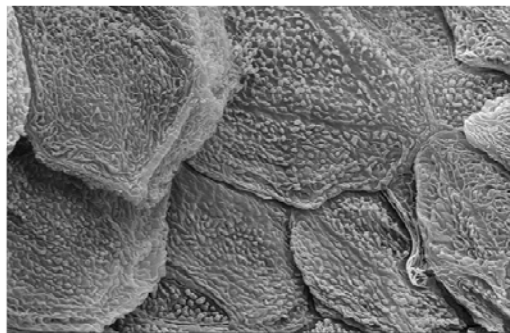
Epidermis

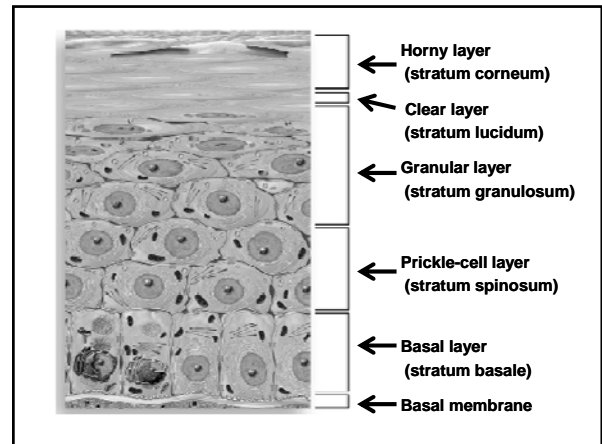
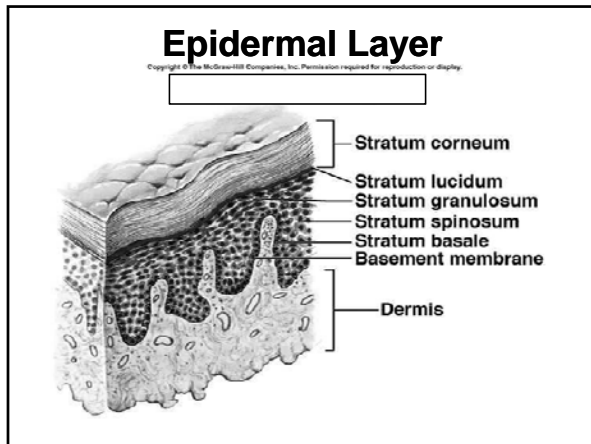
- There are 5 layers in the Epidermis
 - Stratum corneum
 - Stratum lcidum
 - Stratum granulosum
 - Stratum spinosum
 - Stratum basale

Stratum Corneum

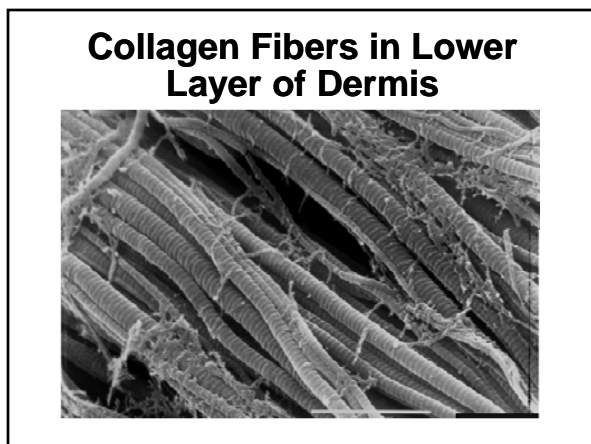
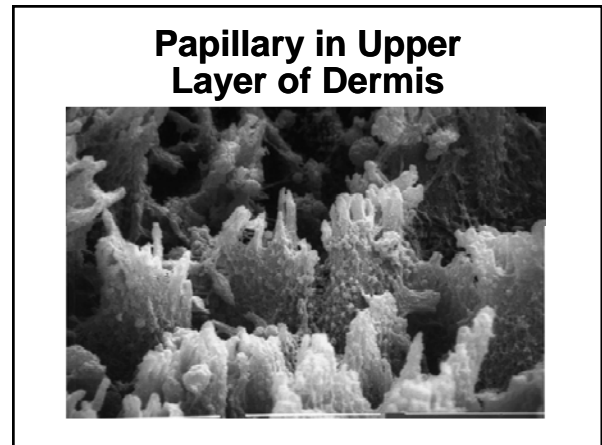
- Outside layer
- Provides protection
- Sloughs off about every 2 weeks
- Call the “horny” or “crusty” layer

Epidermis

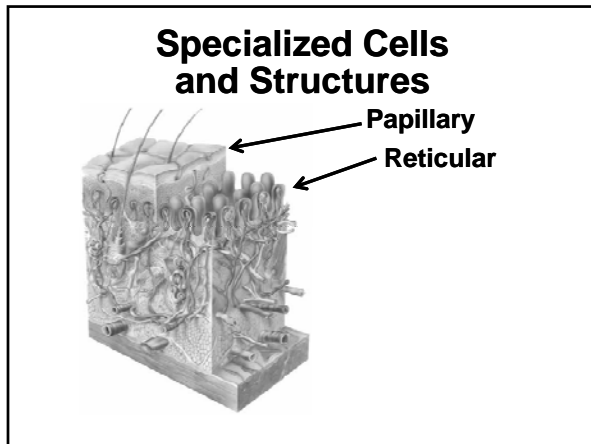




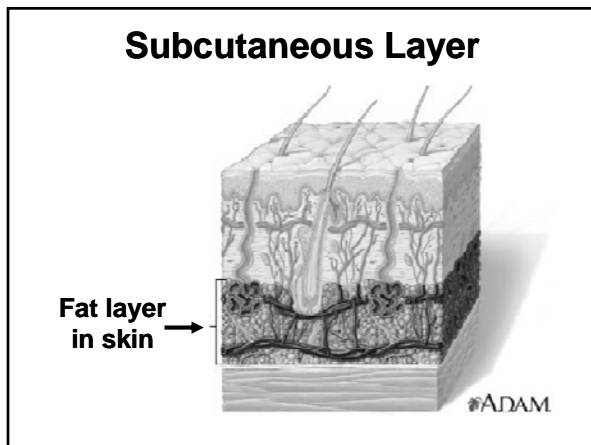
- ### Layers of the Dermis
- Papillary
 - Contains a thin arrangement of collagen fibers
 - Reticular
 - Thicker and made of thick collagen fibers that are arranged parallel to the surface of the skin



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



- ### 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



- ### 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

Why Does Incontinence Harm the Skin?

- Moisture
 - Too much of a good thing



pH Balance

- pH of skin vs. stool and urine



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

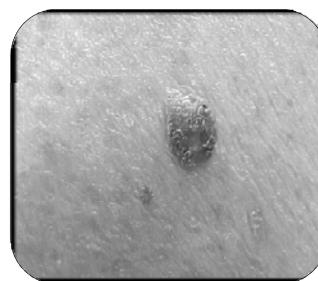
Skin Infection: Bacterial Staphylococcus

- Folliculitis



Skin Infection: Bacterial Staphylococcus

- Furnuculosis



**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: Yeast



Skin Infection: Yeast



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

Incontinence Associated Dermatitis



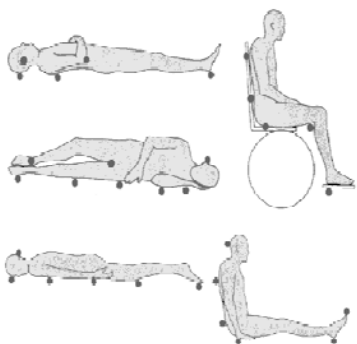
IAD: Management

- 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 Stage I and II



Pressure Ulcer Management

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

What is This?

- Skin infection
- IAD
- Pressure ulcer



What is This?

- Skin infection
- IAD
- Pressure ulcer



What is This?

- Skin infection
- IAD
- Pressure ulcer



What is This?

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What is This?

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What is This?

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What is This?

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What is This?

- Skin infection
- IAD
- Pressure ulcer



What Are These?



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**

Clean



Clean



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**

Protect



Protect



Protect and Treat



Protect and Treat



Protect and Treat



Treat

