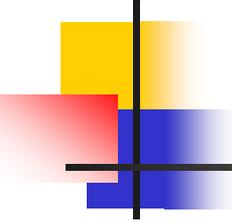


Nursing Care of Patients with Skin Disorders and Burns

Chapter 51



Pressure Ulcers

- Pathophysiology
 - Pressure against skin
 - Tissue anoxia
 - Begin within 20-40" of unrelieved pressure
- Etiology
 - Pressure – causes blanching
 - Friction
 - Rubbing of skin surface w/external force
 - Shear

Pressure Ulcers

Risk Factors

- Immobility
- Thin patients
- Obese patients
 - Adipose tissue is poorly vascularized
- Impaired circulation
- Impaired sensory perception
- Elderly
 - Normal changes that occur with age

Pressure Ulcers

Prevention

- Assess daily
- Cleanse and dry daily and PRN
- Lubricate daily
- Clean incontinence promptly
- Use moisture barrier PRN
- Do not massage reddened areas
- Shift weight q15 min

Pressure Ulcers

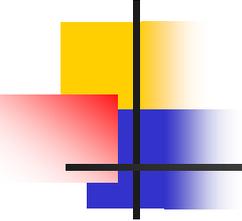
Prevention

- Turn at least q2h
- Keep heels off bed
- Pad/protect elbows, sacrum, scapulae, ears, occipital area
- Use pressure-reducing mattress
- Use lift sheet to move to avoid friction
- Provide nutrition and hydration
 - > 2500 mL fluid (if not contraindicated)

Pressure Ulcers

Signs and Symptoms

- Pain
- Open ulcerated area
- Color tip
 - Black: Necroses
 - Yellow: Infection
 - Red: Healing



Pressure Ulcers

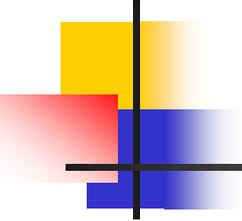
Complications

- Infection
 - Most common complication
- New ulcers
- Current ulcer progression
- Pain
 - Nonhealing ulcer/prolonged healing

Pressure Ulcers

Diagnosis

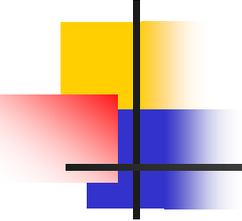
- Physical examination
- Culture and sensitivity
- Arterial blood supply studies
 - Performed in not healing
 - Assesses blood supply to wound area
 - Noninvasive and invasive
- Biopsies
 - Large, extensive wounds



Pressure Ulcers

Treatment

- Remove all pressure
- Debridement
- Wound cleansing
- Wound dressing
 - Provide clean, moist environment



Pressure Ulcers

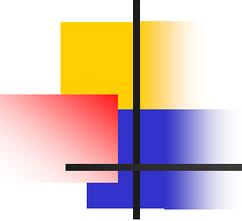
Treatment

- Debridement
 - Removal of dead tissue
 - Nonsurgical
 - Mechanical
 - Enzymatic
 - Autolytic
 - Surgical – done in presence of:
 - Eschar – black, hard, necrotic tissue
 - May hide true depth/size of wound
 - Cellulitis

Pressure Ulcers

Treatment

- Wound cleansing
 - Whirlpool
 - Irrigating system w/pressure
 - 250 mL of NSS
 - Pressure of 4 -15 pounds per square inch (psi)
 - 30mL syringe w/18g needle
 - Apply dressing
 - Leave in place at least 12 hrs (healthy wound)



Pressure Ulcers

Treatment

- Wound dressings
 - Commonly used materials
 - Hydrogel
 - Polyurethane film
 - Hydrocolloid wafer
 - Biological
 - Alginate
 - Cotton gauze

Pressure Ulcers

Nursing Assessment

- Monitor for risk factors
 - Prolonged immobility
 - Incontinence
 - Inadequate hydration/nutrition
- Measure size
 - Disposable ruler – cm
 - Sterile cotton applicator – depth
 - Probe wound edges for tunneling

Pressure Ulcers

Nursing Assessment

DuoDERM® “S.O.S.” Wound Care

“S.O.S.” – “SELECTION ON SIGHT”

PROTECTION

STAGE 1

To protect at-risk sites against problems before they begin, or, when you see a redness of intact skin . . .



MANAGEMENT From Stage 2 Through Stage 4 Pressure Ulcers

STAGE 2

FIRST SIGN OF SKIN BREAKDOWN:

When you see superficial skin loss of the epidermis . . . and no exudate is present



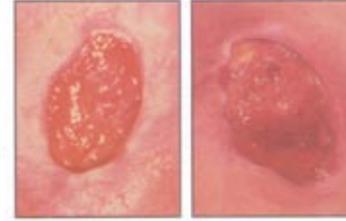
FULL STAGE 2:

When you see partial-thickness skin loss of the dermis . . . and exudate is present



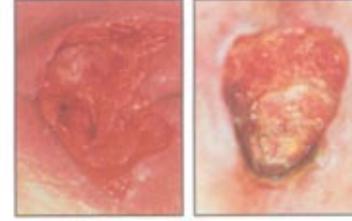
STAGE 3

When you see full-thickness skin loss into subcutaneous tissue . . . with or without exudate



STAGE 4

When you see full-thickness skin loss with extensive destruction, tissue necrosis or damage to muscle, bone or supporting structures . . . with or without exudate



Pressure Ulcers

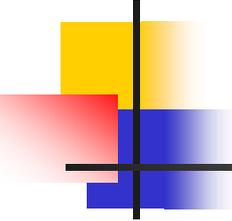
Nursing Assessment

- Assess exudate
 - Serosanguineous
 - Consists of serum & blood
 - Purulent
 - Consists of pus
 - Color/odor varies according to organism
 - *Staphylococcus*
 - Creamy yellow
 - *Proteus*
 - Beige with fishy odor
 - *Pseudomonas*
 - Green-blue with fruity odor
 - *Bacteroides*
 - Brown with fecal odor

Pressure Ulcers

Nursing Assessment

- Gently palpate
 - Note texture of granulation tissue
 - Healthy tissue feels spongy
 - Presence of granulation tissue
 - Most important indicator of healing ulcer
- Document all findings
 - Monitors progress of healing
 - Many institutions have
 - Special teams
 - Specific forms or cameras



Nursing Diagnoses

- Impaired skin integrity
- Risk for infection
- Pain
- Risk for ineffective coping

Inflammatory disorders

Dermatitis

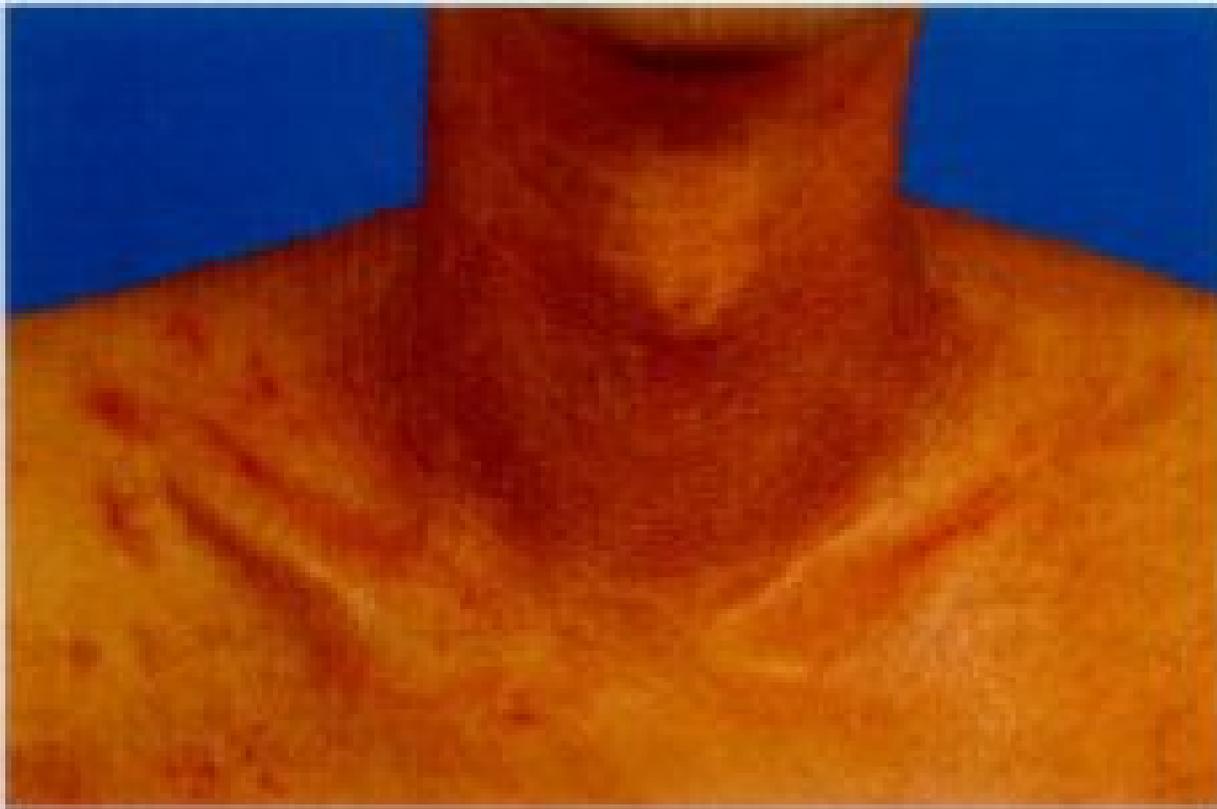
- Pathophysiology
 - Inflammation of the skin
- Etiology
 - Allergens
 - Irritants
 - Heredity
 - Stress
 - Unknown

Dermatitis

Types

- Contact
 - Irritant
 - Allergic
- Atopic
- Seborrheic

Which type of dermatitis is it?



Case 4

Which type of dermatitis is it?



Case 5

Which type of dermatitis is it?

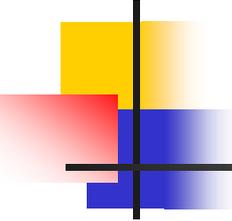


Case 1

Dermatitis

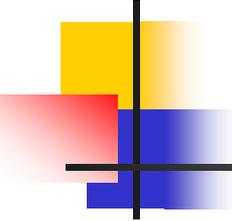
Prevention

- Avoid allergens
- Control perspiration
- Short, tepid baths
- Substitute superfatted soaps for deodorant soap
- Lubrication
- Avoid scratching



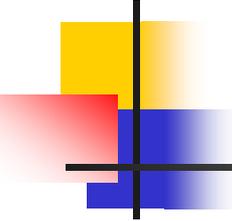
Signs and Symptoms

- Rash, itching, redness
- Lesions
 - Scales
 - Crusts
 - Fissures
 - Macules
 - Papules
 - Pustules



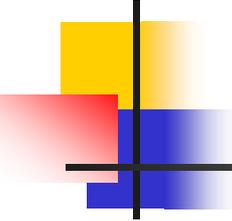
Complications

- Infection
- Sepsis
 - If becomes systemic



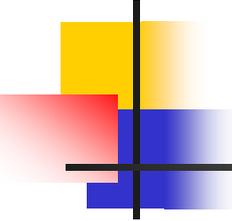
Diagnosis

- H&P
- Culture and sensitivity
 - If infection is suspected



Treatment

1. Antihistamines
2. Analgesics
3. Antipruritics
4. Steroids
 1. Topical, intralesional or systemic
5. Baths
 1. Colloidal oatmeal
6. Wet dressings



Nursing Diagnoses

- Impaired skin integrity
- Disturbed body image
- Deficient knowledge

Psoriasis

Pathophysiology/Etiology

- Chronic inflammatory disorder
- Proliferation of epidermal cells
- Scaling & inflammation
- Exacerbations & remissions
- Exact cause unknown, genetic component
- Onset common late 20's

Psoriasis

Aggravating Factors

- Stress
- Strep pharyngitis
- Hormone changes
- Cold weather
- Skin trauma
- Some drugs

Psoriasis

Signs and Symptoms

- Papules, plaques
- Silvery scales – if untreated
- Itching
- Areas most affected
 - Elbows
 - Knees
 - Scalp
 - Umbilicus
 - Genitals

Psoriasis

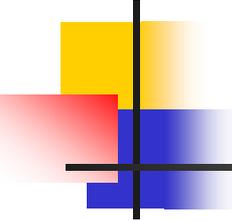
Signs and Symptoms



Psoriasis

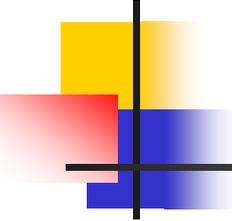
Signs and Symptoms





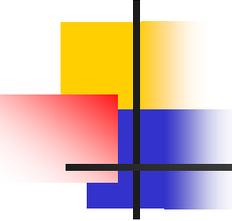
Complications

- Secondary infection
- Psoriatic arthritis
 - Destructive arthritis of large joints
- Nail changes
- Severe & widespread disease
 - Fever, chills
 - ↑ cardiac output
 - Benign lymphadenopathy



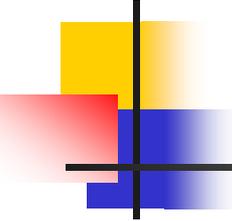
Diagnosis

- Physical exam
 - Usually sufficient
- Diagnostic tests may be necessary
 - r/o other possible diseases
 - r/o infection



Treatment

- Daily tub baths
- Steroids
- Salicylic acid
- Keratolytics
- Coal tar, anthralin
- UV light
- Chemotherapy
- Topical corticosteroids
- Occlusive dressings



Infectious Skin Disorders

- Bacterial
- Viral
- fungal

Impetigo

Pathophysiology

- Localized bacterial infection of the skin
- Two types
 - Bullous
 - Epidemic
- Primarily affects children
- Staphylococcus aureus
- Group A streptococci

Impetigo

Pathophysiology

- Very contagious
- Spread by child from one part of body to the other by scratching
- Spread by contact with towel, clothing, stuffed animal
- Need to stay home from school or daycare until healed

Impetigo

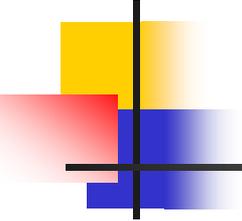
(Infected atopic dermatitis)



Impetigo

Signs and Symptoms

- Bullous impetigo
 - Large bump on the skin (bulla)
 - Develops scab-like, honey-colored crust
 - Usually no redness or pain
 - Pruritis



Impetigo

Signs and Symptoms

- Epidemic impetigo
 - Small vesicle surrounded by a circle of erythema
 - Appear first on face and legs
 - Skin surface can ulcerate
 - Untreated—possibility of glomerulonephritis

Impetigo

Diagnosis

- History and physical
 - Characteristic appearance of skin
 - Fluid from vesicles can be cultured

Impetigo

Treatment

- Topical antibiotics
- Widespread case or systemic symptoms—oral or intravenous antibiotics
- Good handwashing
- Observe pt. for 6-7 weeks for s/s of glomerulonephritis

Impetigo

Prognosis

- Excellent
- Majority recover quickly and completely

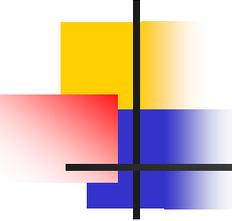
Impetigo

Prevention

- Good hygiene
- Handwashing
- Keep fingernails well trimmed
- Cuts covered
- Stay home from school or day care until completely healed

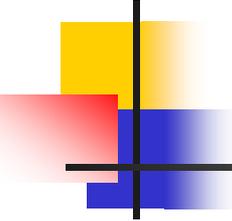
impetigo





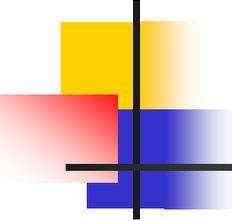
Furuncle

- Small tender boil
- Occurs in hair follicle
- Spreads to surrounding dermis
- Usually caused by Staph
- Prone to areas of perspiration, friction and irritation



Furuncle

- Usually comes to purulent head
- Localized pain, tenderness, and cellulitis
- Lymphadenopathy may be present

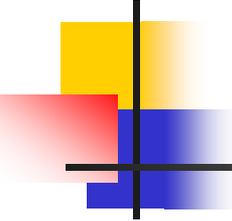


Carbuncle

- Extension of a furuncle
- Deeper abscess involving skin and subcu tissue
- May be associated with systemic s/s
 - Fever
 - Pain
 - Leukocytosis
 - Fatigue

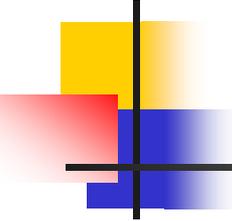
Furuncles & Carbuncles





Complications

- Carbuncles can progress to sepsis
- Contagious
- Scarring



Treatment

- Avoid squeezing and trauma
- Topical antibacterial ointment
- Surgical I&D may be done
- Systemic antibiotics may be necessary, especially carbuncles
- Analgesia and antipyretics
- Strict handwashing

Herpes Simplex

Pathophysiology/Etiology

- Viral infection
 - HSV1: Above waist
 - HSV2: Below waist
- Primary infection
 - Direct contact
 - Respiratory droplet
 - Fluid exposure from another infected person
- Lies dormant – pt is asymptomatic
- Recurs with stress

Herpes Simplex

Prevention

- Avoid contact with blistered lesion
- Avoid sharing contaminated items
 - Toothbrushes, lipsticks, cups, etc.
- Avoid stressors if possible
- Sunscreen

Herpes Simplex

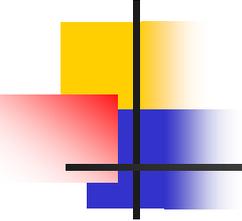
Signs and Symptoms

- Prodromal phase
 - Hours before eruption
 - Burning, tingling
- Erythema & swelling
- Vesicles and pustules in 1 – 2 days
 - Burning, itching, pain
- Contagious until scabs form

Herpes Simplex

Signs and Symptoms

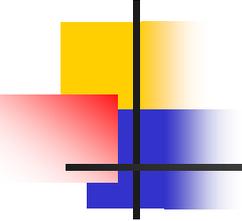




Herpes Simplex

Complications

- Meningoencephalitis
 - Infection of newborn
 - Contact with HSV II in mother
- Blindness
 - Severe infection of eyes
 - Self inoculation from other area



Herpes Simplex

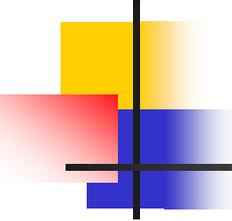
Diagnosis

- H&P
- Culture
 - Provides definitive diagnosis

Herpes Simplex

Treatment

- No cure, recurrence common
- Zovirax ointment
 - Primary lesions
 - Suppresses vesicle multiplication
- Oral acyclovir
 - Used for frequent attacks (>6 yr)
- Antibiotics
 - Secondary infections
- Avoid triggers of recurrence



Herpes Simplex

Nursing Care

- Educate patient
 - Disease
 - Recurrence
 - Contagious
 - Self inoculation
 - Others

Herpes Zoster (Shingles)

Pathophysiology

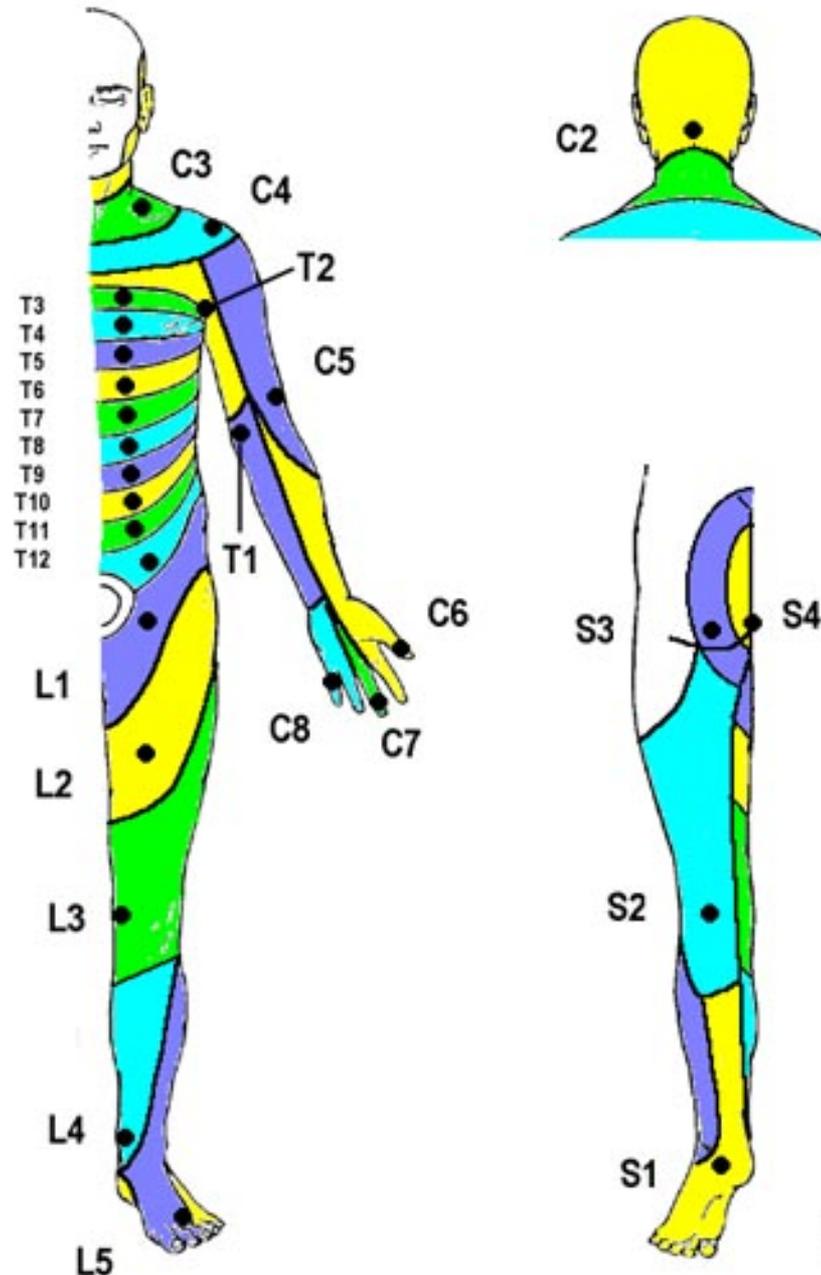
- Acute inflammatory and infectious disorder
- Painful vesicular eruption
- Follows nerve distribution
- Usually one-sided

Herpes Zoster (Shingles)

Etiology

- Reactivation of varicella zoster virus (chickenpox virus)
- Occurs with reduced immune function
 - Elderly
 - AIDS
 - Immunosuppressed

DERMATOME CHART



Upper Quarter Screen

- C2 - Occipital Protuberance
- C3 - Supraclavicular Fossa
- C4 - Acromioclavicular Joint
- C5 - Lateral Antecubital Fossa
- C6 - Thumb
- C7 - Middle Finger
- C8 - Little Finger
- T1 - Medial Antecubital Fossa
- T2 - Apex of Axilla

Lower Quarter Screen

- L1 - Upper Anterior Thigh
- L2 - Mid Anterior Thigh
- L3 - Medial Femoral Condyle
- L4 - Medial Malleolus
- L5 - Dorsum 3rd MTP Joint
- S1 - Lateral Heel
- S2 - Popliteal Fossa
- S3 - Ischial Tuberosity
- S4-5 - Perianal Area

Note: test dermatomes at dots

Herpes Zoster (Shingles)

Signs and Symptoms

- Vesicles, plaques
- Irritation
- Itching
- Fever
- Malaise
- Pain

Herpes Zoster (Shingles)

Signs and Symptoms



Herpes Zoster (Shingles)

Complications

1. Postherpetic neuralgia
2. Persistent dermatomal pain
3. Hyperesthesia
4. Ophthalmic herpes zoster
5. Sepsis

Herpes Zoster (Shingles)

Diagnosis

- H&P
 - Signs & symptoms
 - Clinical picture
- Culture
 - If secondary bacterial infection

Herpes Zoster (Shingles)

Treatment

- Acyclovir
 - Intravenous, orally, topically
- Analgesics
- Corticosteroids
 - May help prevent post-herpetic neuralgia
- Antihistamines
 - Control itch
- Antibiotics for secondary bacterial infection

Herpes Zoster (Shingles)

Nursing Care

- Teach spread prevention
- Cool compresses
 - BID or TID
 - Aid in drying lesions/decrease itch
- Compression wraps
 - Provide continuous pressure
 - May help ↓ hyperesthesia
- Pain control

Fungal Infections

Pathophysiology/etiology

- Dermatophytosis
 - Fungal infection of the skin
- Direct contact with fungus
- Grows in warm moist environment
- ***Tinea***
 - Term used to describe fungal infections

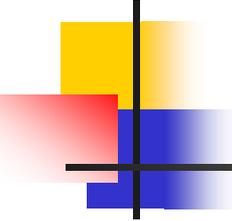
Fungal Infections

Types

- Tinea pedis
 - Athlete's foot
- Tinea capitis
 - Ringworm of scalp
- Tinea corporis
 - Ringworm of body
- Tinea cruris
 - Jock itch
- Tinea unguium (onychomycosis)
 - Ringworm of nails

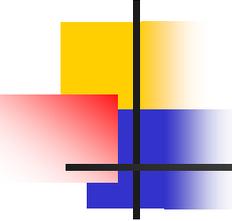
- Tinea pedis





Tinea Pedis

- Athlete's foot
- Most common warm, moist, sweaty feet
- Tight shoes
- Increased friction or trauma



Tinea Pedis

- Three types
 - Acute vesicular—acute vesicular eruptions, itchy, and painful
 - Interdigital—most common—erosion, scaling, and fissuring in webs of toes—painful, burning, and itchy, offensive odor
 - Chronic plantar—scaling, redness, absence of itch

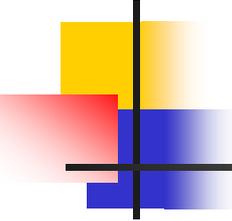
Tinea Pedis

Treatment

- Kerolytics
- Topical antifungals—apply thin coat, continue for prescribed time even after symptoms resolve
- Soaks
- Patient education

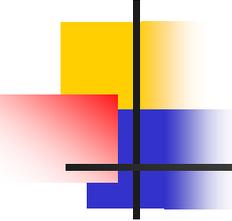


- Tinea capitis



Tinea Capitis

- Appears as scattered round, red, scaly patches
- May have small papules or pustules
- Hair is brittle
- Temporary hair loss



Tinea Capitis

- Treatment

- Systemic antifungals are commonly prescribed
- High rate of reoccurrence with topical
- Monitor for side effects

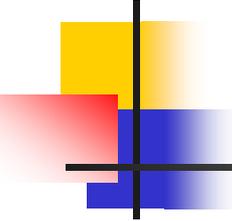
- Prevention

- Contagious—do not share combs, brushes, head gear, hats, pillowcases
- Check pets—if reoccurrence



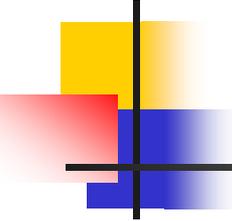
■ Tinea corporis





Tinea Corporis

- Red macule with clear center
- May be isolated or appear in clusters
- Moderate to intense pruritis
- Usually appear on exposed part of body



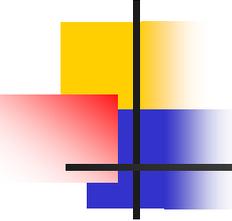
Tinea Corporis

- Treatment

- Topical antifungals for localized regions—apply thin layer—cover rash and few cms beyond
- Oral antifungals for severe, widespread, or resistant cases
- Topical steroids to control itch

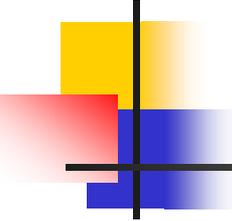


- onychomycosis



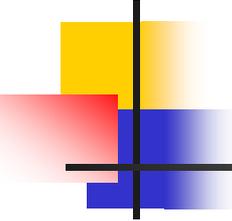
Onychomycosis

- Usually lifelong disease
- Very difficult to treat
- Yellow thickening of nails



Onychomycosis

- Treatment
 - Oral antifungals usually necessary
 - Topical usually not effective
 - Nails may need to be removed surgically



Cellulitis

- Pathophysiology
 - Inflammation of skin/connective tissue
 - Infection
 - Staph
 - Strep
- Etiology
 - Open wound/trauma
 - i.e., Decubitus ulcer, bug bite
 - May be unknown

Cellulitis

Signs and Symptoms

- Warmth
- Redness
- Edema
- Pain, tenderness
- Fever
- Lymphadenopathy

Cellulitis

Signs and Symptoms



Cellulitis

Signs and Symptoms



Cellulitis

Diagnosis

- Culture and sensitivity
- Blood cultures

Cellulitis

Treatment

- Antibiotics
 - Topical
 - Systemic
- Debridement

Cellulitis

Nursing Care

- Monitor size of inflamed area
- Report increasing inflammation, temperature
- Elevate
 - Decreases edema
- Administer analgesics
- Apply warm compresses
- Institute standard precautions

Acne Vulgaris

Pathophysiology/Etiology

- Common skin disorder
- Hormonal changes are most common cause
 - ↑ androgen production
 - ↑ sebum production
- Obstruction of ducts through which sebum flows
 - Inflammatory response
 - Papules, pustules, nodules and cysts

Acne Vulgaris

Signs & Symptoms

- Comedomes
 - Closed or whiteheads
 - Small white papules with small follicular openings
 - Open or blackheads
- Inflammation
 - Can lead to pustules, nodules, cysts or abscesses

Acne Vulgaris

Signs & Symptoms



Acne Vulgaris

Medical Treatment

- Topical agents
 - May be used alone or in combo
 - May take 3 – 6 weeks to see improvement
 - Benzoyl peroxide
 - Antibiotics
 - Vitamin A acid

Acne Vulgaris

Medical Treatment

- Severe cases
 - Systemic antibiotics
 - Long term, low dose
 - Isotretinoin (Retin – A)
 - Oral contraceptives
 - Systemic corticosteroids
 - Nodular acne

Acne Vulgaris

Medical Treatment

- Other

- Comedo extraction
- Intralesional steroid injections
- Cryosurgery (freezing)
- Mild peeling (UV light, mild acid)
- Dermabrasion (deep chemical peel)
- Excision of scars
- Injection of fibrin or collagen

Acne Vulgaris

Nursing Care

- Patient teaching
 - Medications
 - Gently wash face twice daily
 - Mild soap
 - Avoid sun exposure with tretinoin
 - If mixing agents
 - Tretinoin at night
 - Other agents in morning
 - Keep hair clean & off face

Parasitic Skin Disorders

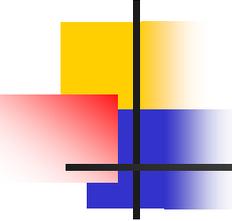
Pediculosis

- Pathophysiology/etiology
 - Infestation by lice
 - Transmission by direct contact

Pediculosis

Types

1. Pediculosis capitis
2. Pediculosis corporis
3. Pediculosis pubis



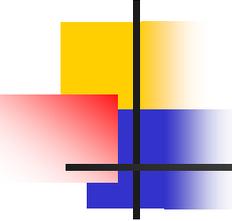
Pediculosis Capitis

- Female louse lay eggs (nits) close to scalp
- Nits firmly attach to hair shaft
- Commonly found back of scalp and behind the ears
- Nits are 1-3 mm—shiny, white
- Spread by direct contact

Pediculosis

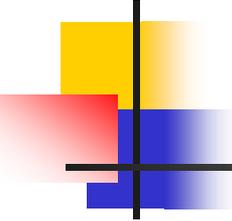
Types





Pediculosis Corporis

- Body lice
- Usually poor hygiene
- Neck, trunk and thighs most commonly affected
- Can lay eggs in seams of clothing—bite skin



Pediculosis Pubis

- Crab lice
- Usually located in genital region—can also occur on chest, axilla, eyelash and beard hairs
- Lice are 2 mm and look like crabs
- Most commonly transmitted through sexual contact—can be spread through inanimate objects like linen

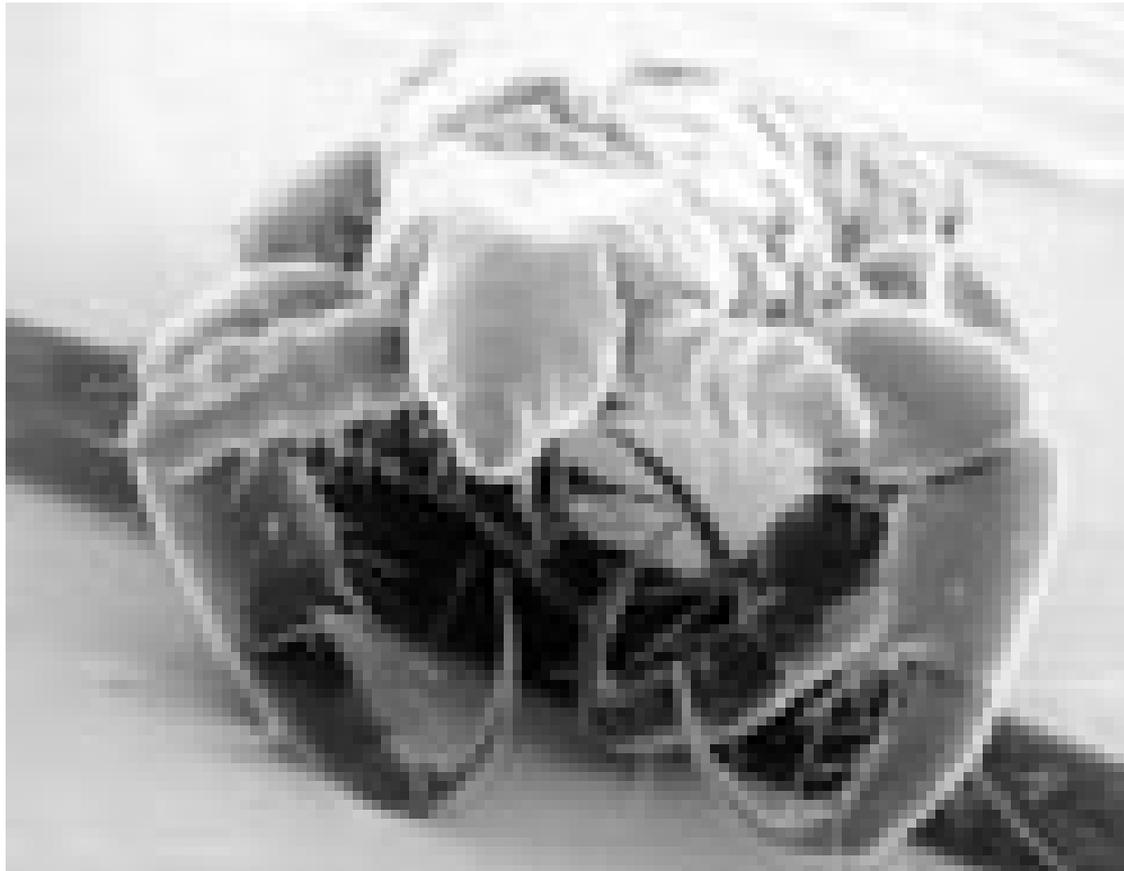
Pediculosis

Types



Pediculosis

Types



Pediculosis

Signs and Symptoms

- Itching
- Macular or papular rash
- Presence of lice, nits, and excreta
- Minute hemorrhagic points

Pediculosis

Signs and Symptoms



Pediculosis

Complications

- Secondary bacterial infections
- Body lice may be vector for rickettsiae disease
- Dermatitis, eczema, hyperpigmentation
- Coexistence with other STDs

Pediculosis

Diagnosis

- History and physical
- Test for STD if pediculosis pubis

Pediculosis

Treatment

- Pediculocides
 - Permethrin (Nix)
 - Pyrethrins (RID, A-200 Pyrinate)
 - Physostigmine ophthalmic ointment
 - Eyebrows and lashes
- Mechanical removal
- Antipruritics
- Topical corticosteroids

Pediculosis

Nursing Care

- Patient education
 - Self-medication
 - Removal of nits
 - Cleaning of clothing and objects
 - Inspection of family and friends

Scabies

Pathophysiology/Etiology

- Extremely contagious disease
- Prolonged contact with infected clothing or animals
 - *Sarcoptes scabiei* mites burrow into skin
 - Short, wavy, brownish-black lines

Scabies

Pathophysiology/Etiology



Scabies

Prevention

- Treat all contacts at time of dx
 - Mite lives < 24hrs w/o human contact
- Wash bed linens, clothes, towels
- Furnishing need not be cleaned

Scabies

Signs and Symptoms

- Initially may be asymptomatic
- Intense itching
- Rash
- Burrows



- scabies

Scabies

Signs and Symptoms



Scabies

Signs and Symptoms



Scabies

Diagnosis

- Shaving of lesion
- Microscopic evaluation
 - Adult male
 - Eggs
 - Feces

Scabies

Medical Treatment

- Topical scabicides
 - Entire body application
 - 8 – 12 hrs (usually overnight)
 - Washed off in AM
 - One or two applications is curative
- Antipruritics and Corticosteroids
 - Control itching

Pemphigus

Pathophysiology/Etiology

- Acute to chronic skin dx
 - Bullae on skin and mucous membranes
- Probable autoimmune disorder
- More common in middle to older age

Pemphigus

Signs and Symptoms

- Bullae
 - Usually originates in mucous membranes
 - Spread to skin
 - Large areas of body may be involved
 - Rupture
 - Raw wounds
- Pain
- Burning
- Itching

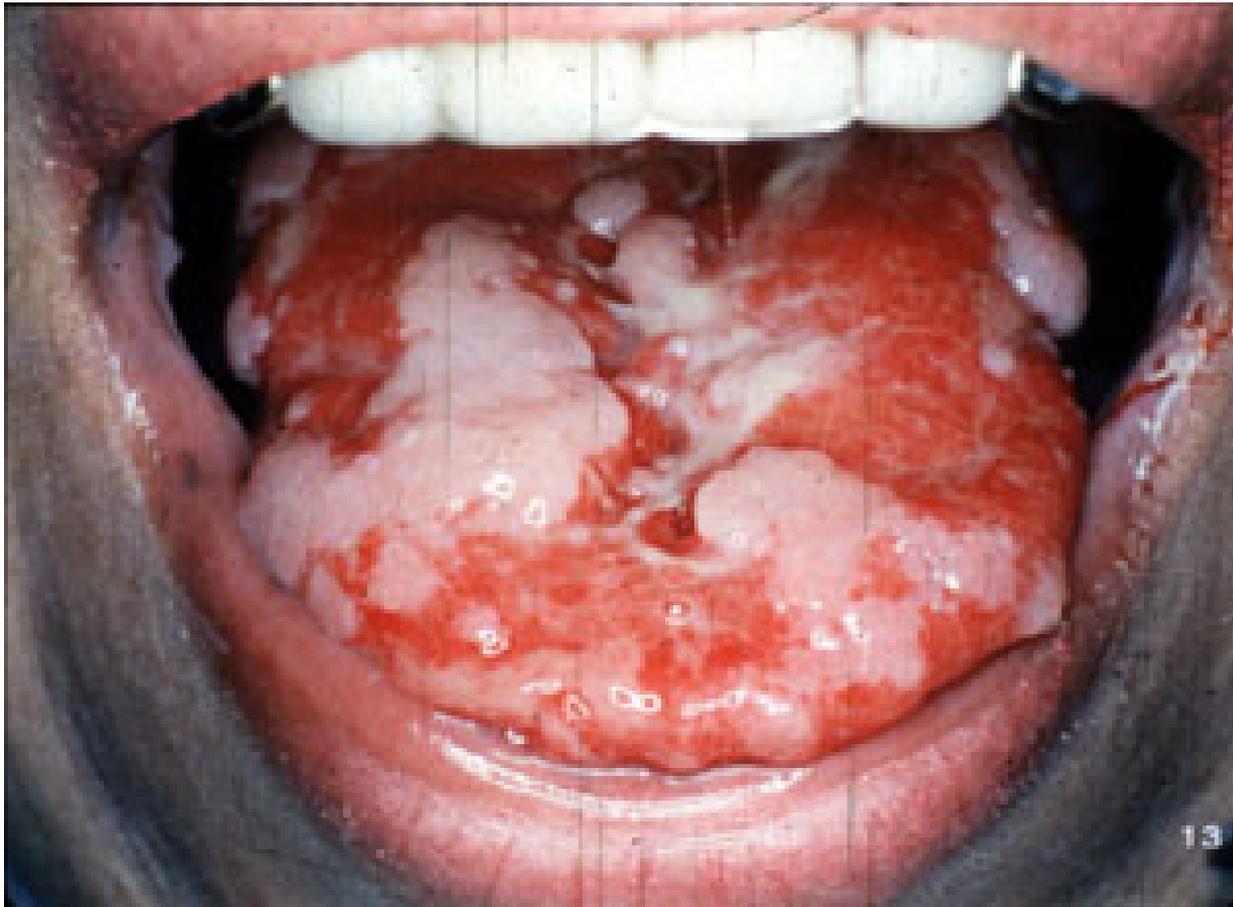
Pemphigus

Signs and Symptoms



Pemphigus

Signs and Symptoms



Pemphigus

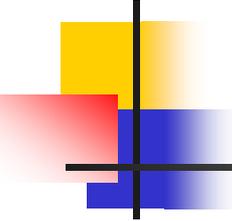
Signs and Symptoms



Pemphigus

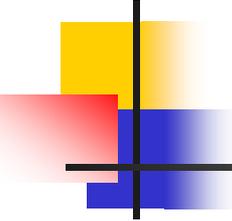
Diagnosis

- Positive Nikolsky's sign
 - Sloughing/blistering of normal skin
 - Minimal pressure
- Biopsy of blister
 - Reveals acantholysis
 - Separation of epidermal cells from one another



Treatment

1. Corticosteroids
2. Cytotoxic agents
3. Analgesics
4. Antipruritics
5. Fluid replacement
6. Diet



Nursing Care

1. Monitor fluid balance
2. Monitor diet
3. Administer wet dressings or baths
4. Control pain
5. Maintain oral hygiene
6. Provide psychosocial support

Burns

Pathophysiology

- Energy transfer from heat source to body
 - Tissue damage
- Heat denatures cellular protein
 - Irreversible damage
- Interruption of blood supply

Burns

Pathophysiology

- Amount of damage r/t
 - Temperature of burning agent
 - Type of burning agent
 - Duration of exposure
 - Thickness of involved dermal structures

Burns

Pathophysiology

- Alteration in Normal Skin Functioning
 - Loss of protective function
 - Impaired temperature regulation
 - Risk for infection
 - Change in sensory function
 - Fluid loss
 - Impaired skin regeneration
 - Impaired secretory and excretory function

Burns

Pathophysiology

- Systemic Responses
 1. Increased capillary permeability
 1. Leakage of plasma and proteins
 2. Loss of intravascular volume
 2. Decreased cardiac output
 1. Hypovolemic shock
 2. Leukocyte and platelet aggregation
 1. Thrombosis

Burns

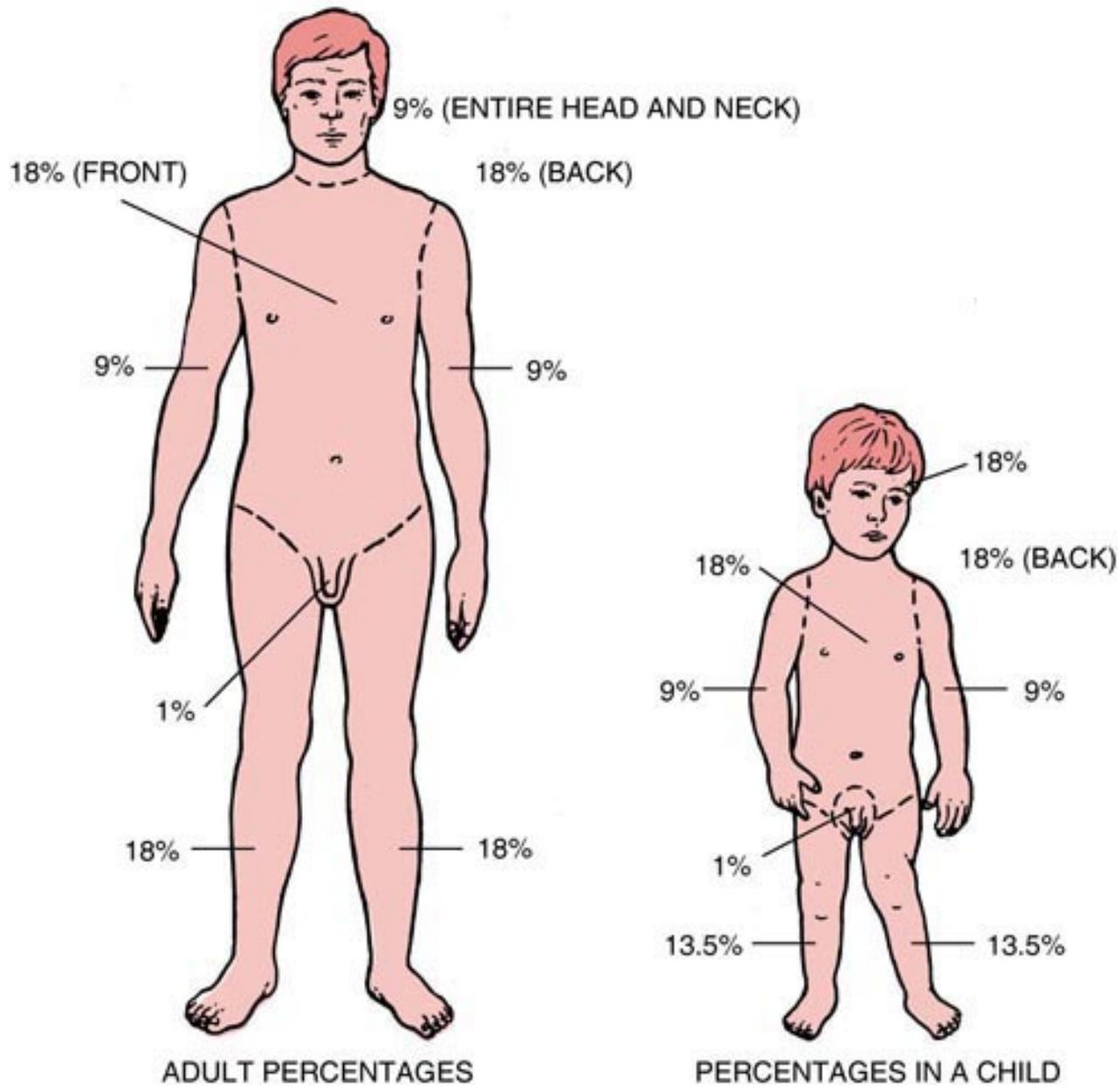
Pathophysiology Systemic

- Systemic Responses (cont.)
 3. Hypermetabolism, catabolism
 4. Stress response
 5. Gastrointestinal complications
 6. Renal insufficiency
 7. Pulmonary damage
 8. Risk for infection

Burns

Classification

- Severity
 - Depth of destruction
 - % of injury
 - Cause of burn
 - Age
 - Concomitant injuries
 - Medical hx
 - Location of burn



ADULT PERCENTAGES

PERCENTAGES IN A CHILD

RULE OF NINES

Burns

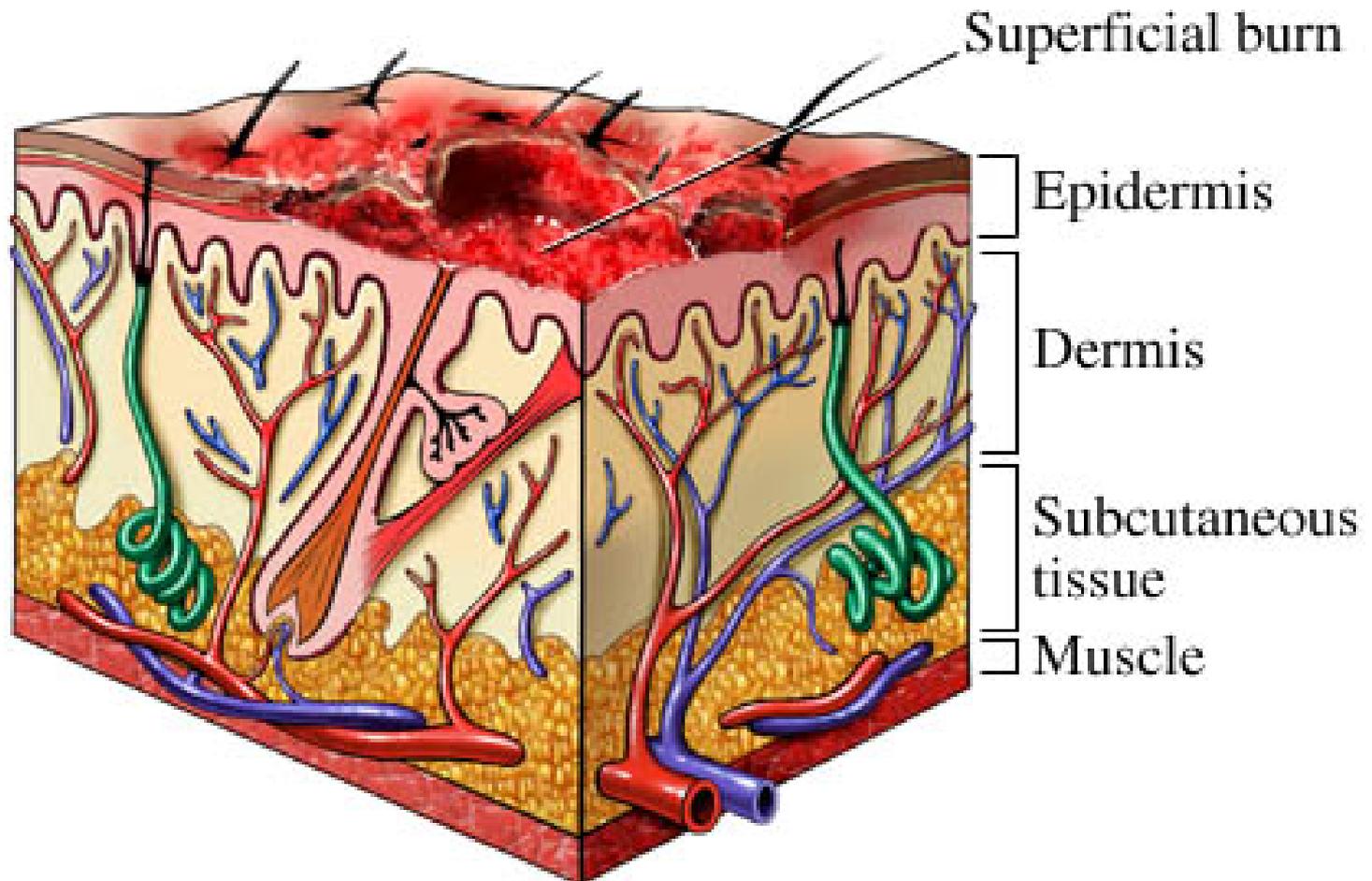
Classification

Depth

- Partial thickness: Superficial
- Partial thickness: Deep
- Full thickness

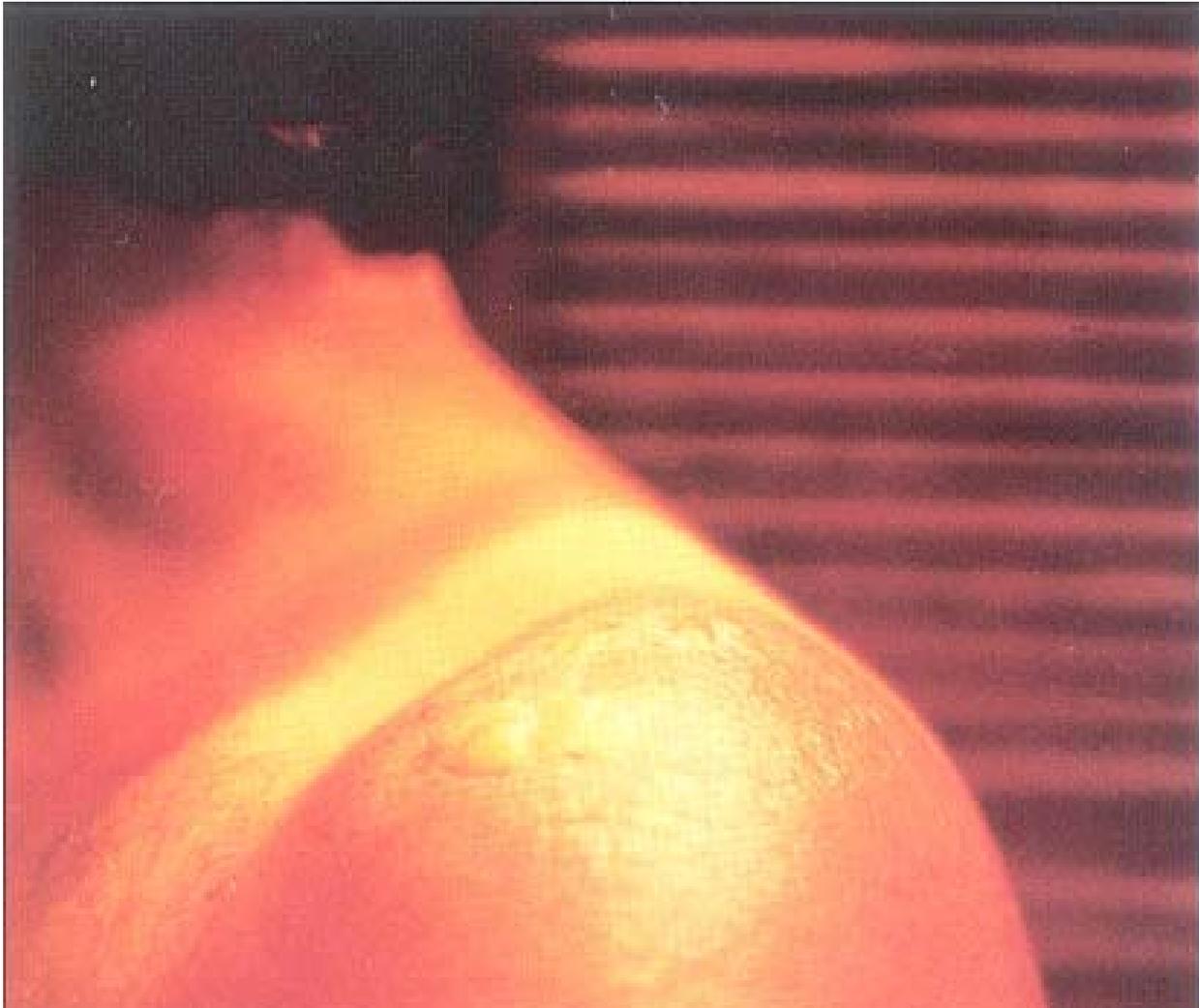
Burns

Classification



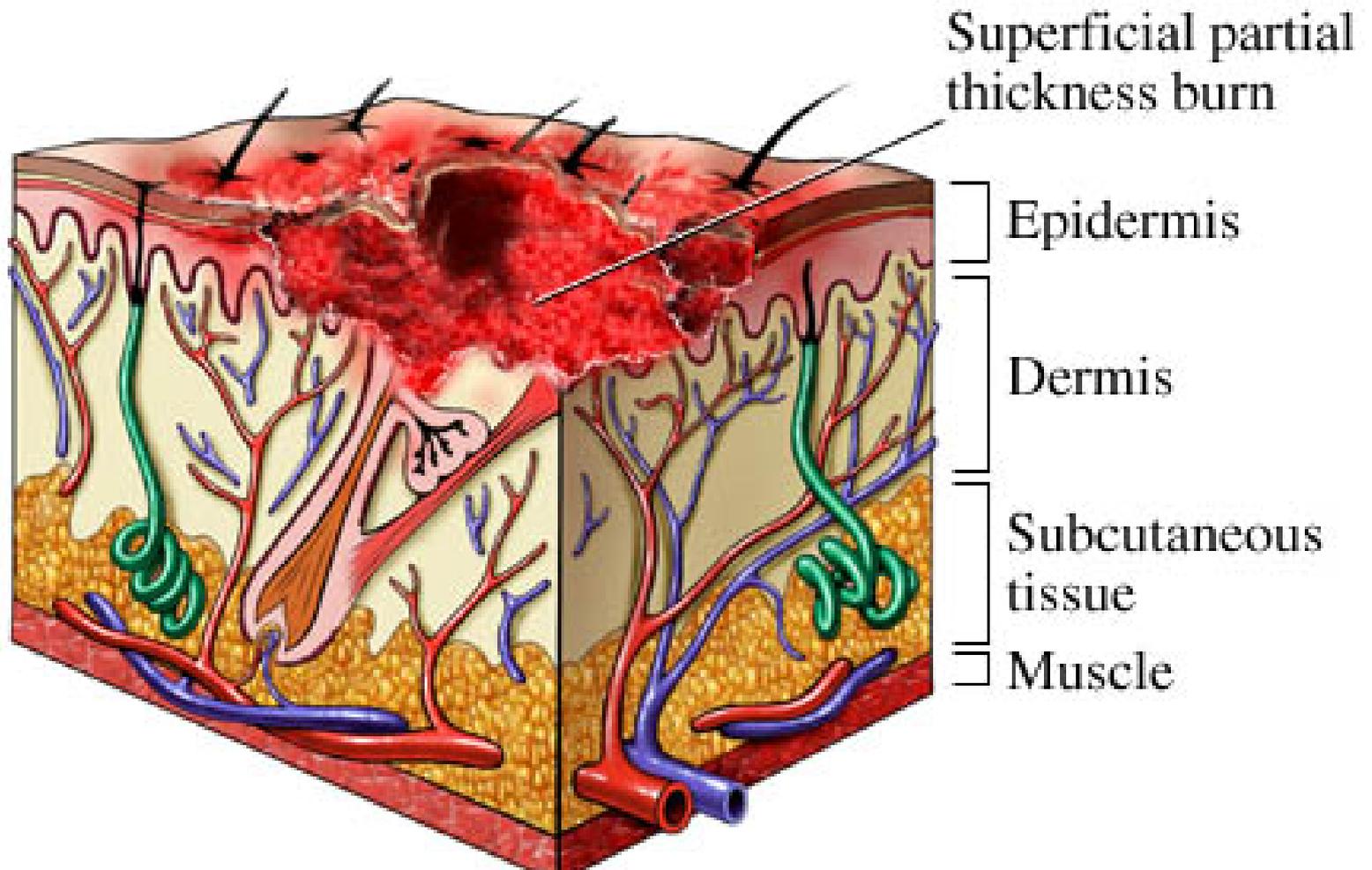
Burns

Classification



Burns

Classification



Burns

Classification



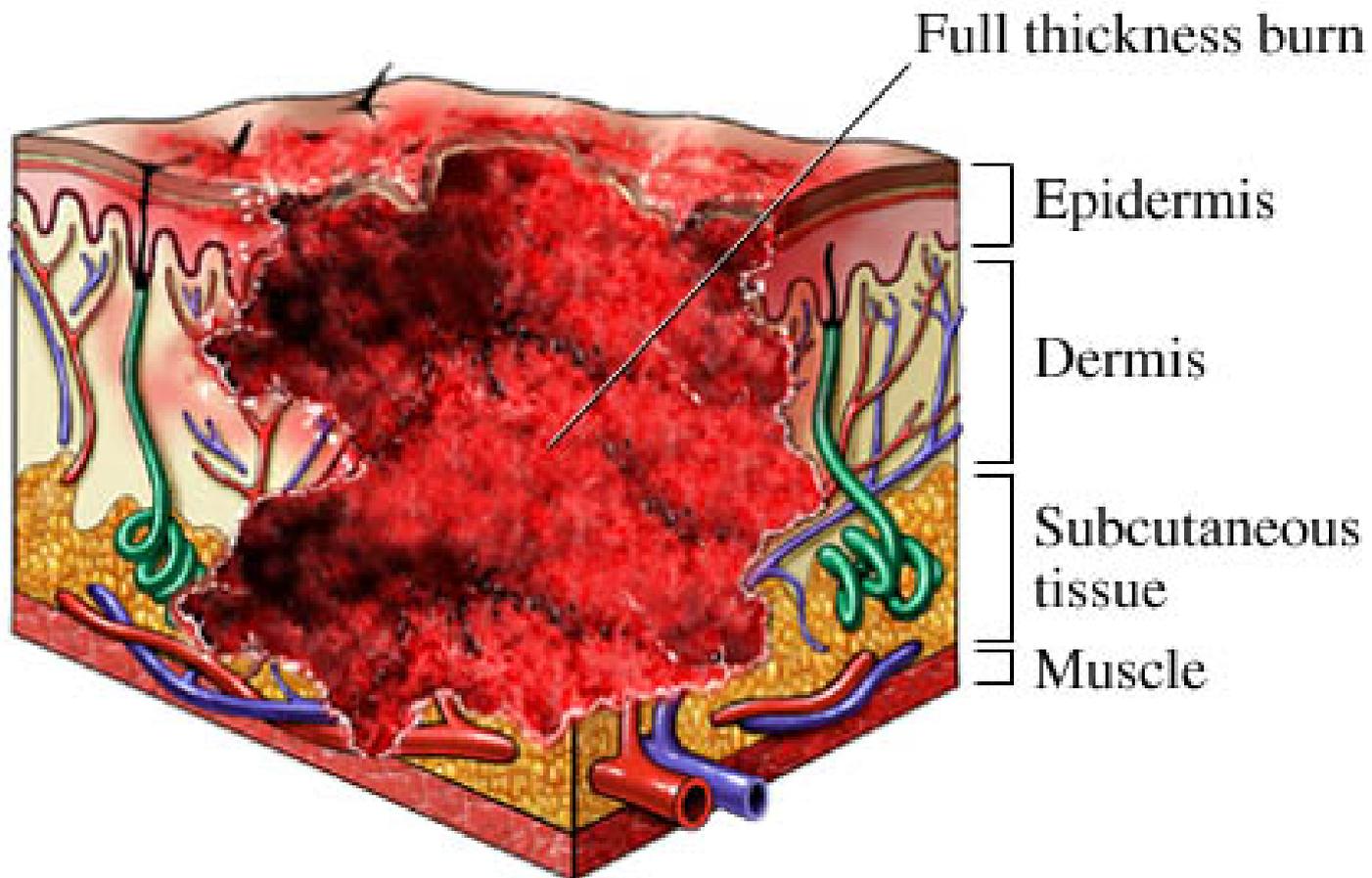
Burns

Classification



Burns

Classification



Burns

Classification



Burns

Etiology

- Flame
- Contact
- Chemical
- Electrical
- Radiation

Burns

Complications

- Inhalation injury
 - Occurs w/flame burns
- Infection
 - Risk increases w/burn size
- Neurovascular compromise
 - Eschar formation

Burns

Diagnosis

- History and physical
- CBC
- BUN
- Glucose
- Electrolytes
- Blood protein, albumin
- Urine cultures
- Clotting studies
- X-ray examination
- EKG
- ABGs
- Cultures

Burns

Treatment

- Three stages
 - I (emergent)
 - Onset of injury to completion of fluid resuscitation
 - II (acute)
 - Start of diuresis to near completion of wound closure
 - III (rehabilitation)
 - Wound closure to return of optimal level

Burns

Treatment

- Emergent stage
 - ABCs
 - Stop burning process
 - Stabilize related injuries

Burns

Treatment

- Acute Stage
 - Wound cleansed daily
 - Debrided daily
 - Mechanical
 - Chemical
 - Surgical

Burns

Treatment

- Acute Stage (cont.)
 - Escharotomy
 - Performed for circumferential burns
 - Burn acts like a tourniquet
 - Common on extremities
 - If on chest
 - Respiration can be compromised

Burns

Treatment



Burns

Treatment

- Acute Stage (cont.)
 - Application of dressings & topical agent
 - Depends on area involved
 - Extent and depth of injury
 - MD preference
 - Refer to Table 51-7 (Williams & Hopper)
 - Topical agents

Burns

Treatment - Acute Stage (cont.)

- Dressing types
 - Open
 - Topical agents w/o drsgs
 - Closed
 - Occlusive drsg over wound
 - Biologic
 - Living or deceased skin used as drsg
 - Synthetic
 - Man made materials

Burns

Treatment - Acute Stage (cont.)

- Skin grafts
 - Autograft (pt's own skin)
 - Split-thickness skin graft (STSG)
 - 0.006 to 0.016 inch
 - Includes epidermis & part of dermis
 - Applied as sheet or meshed graft
 - Full-thickness skin graft (FTSG)
 - 0.035 to 0.040 inch
 - Epidermis & entire dermis

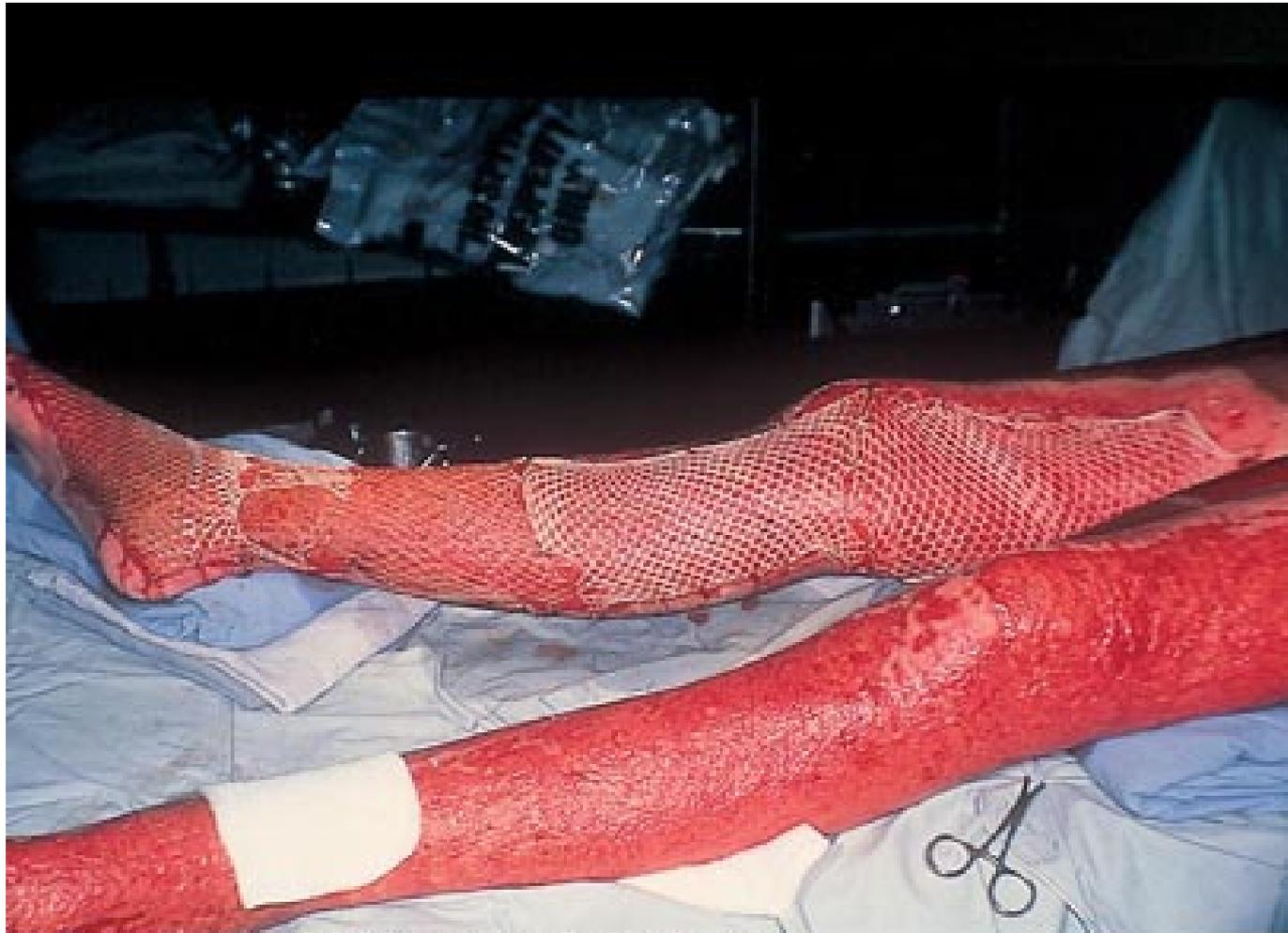
Burns

Treatment - Acute Stage (cont.)

- Care of skin grafts
 - Immobilize the site until graft takes
 - Do not disturb drsgs
 - May be bulky to assist w/immobilization
 - Frequent vascular checks
 - Color, warmth, sensation, pulses, and capillary refill
 - Elevate site

Burns

Treatment - Acute Stage (cont.)



Burns

Rehabilitation Stage

- Reconstructive surgery
- Prevent contracture
 - Physical therapy
- Psychosocial care
 - Consider
 - Age of pt
 - Burn location
 - Recovery
 - Cause
 - Ability to return to previous functioning level

Burns

Rehabilitation Stage



Burns

Nursing Diagnoses

- Impaired skin integrity
- Impaired gas exchange
- Deficient fluid volume
- Pain
- Ineffective peripheral tissue perfusion
- Risk for sepsis

Burns

Nursing Diagnoses

- Imbalanced nutrition
- Activity intolerance
- Self-care deficit
- Disturbed body image
- Ineffective coping

Malignant Skin Lesions

Pathophysiology/Etiology

- Cancer arising from
 - Basal cell layer (basal cell carcinoma)
 - Epidermis (squamous cell carcinoma)
 - Melanocytes (malignant melanoma)
- Major cause
 - Overexposure to UV rays
 - sunlight

Malignant Skin Lesions

Pathophysiology/Etiology

- Basal cell carcinoma
 - Arises from basal cell layer of epidermis
 - Most common cancer
 - Found on sun-exposed areas
 - Appear small, pearly or translucent papule
 - Rolled waxy edge
 - Depressed center
 - Telangiectasis
 - Crusting & ulceration

Malignant Skin Lesions

Pathophysiology/Etiology

- Basal cell carcinoma



Malignant Skin Lesions

Pathophysiology/Etiology

- Squamous cell carcinoma
 - Arises from epidermis
 - Can occur on sun-exposed areas/mucous membranes
 - May develop on normal skin or preexisting lesion
 - i.e., Actinic keratosis
 - Appears single, crusted, eroded papule, nodule or plaque
 - May ooze or bleed
 - Considered invasive cancer

Malignant Skin Lesions

Pathophysiology/Etiology



Malignant Skin Lesions

Pathophysiology/Etiology

- Malignant melanoma
 - Malignant growth of melanocytes
 - Highly Metastatic = high mortality rate
 - Can occur anywhere on body
 - ½ arise from pre-existing nevi or moles
 - 3 types
 - Lentigo maligna melanoma
 - Superficial spreading melanoma
 - Nodular melanoma

Malignant Skin Lesions

Pathophysiology/Etiology

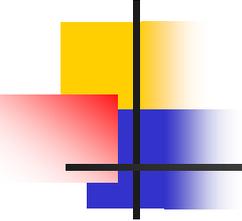


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Malignant Skin Lesions

Pathophysiology/Etiology

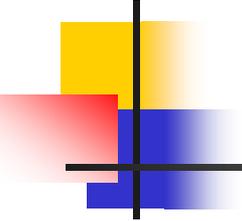




Malignant Skin Lesions

Risk Factors

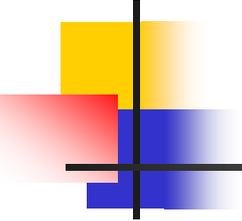
- Ultraviolet rays
- Fair skin
- Genetic tendency
- X-ray therapy
- Chemicals
- Immunosuppressive therapy



Malignant Skin Lesions

Prevention

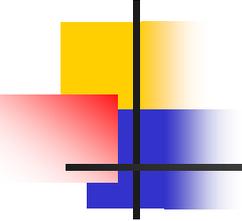
- Limit exposure to UV rays
 - Avoid during highest intensity
 - 10AM to 2PM
- Use sunscreen = 15 SPF or more
- Report change in mole or lesion
 - Color
 - Size
 - Shape
 - Sensation
 - Character



Malignant Skin Lesions

Diagnosis

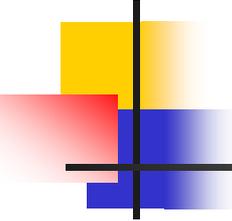
- Examination
 - Appearance of lesion
- Biopsy
 - Provides definitive diagnosis



Malignant Skin Lesions

Treatment

- Surgical excision
 - Takes additional 1 to 2 cm margin
 - May take regional nodes
 - Grafting may be needed
- Chemotherapy
 - metastasis
- Radiation therapy
 - Adjunct therapy
 - Deep invasive tumors or poor surgical risk pts



Benign skin lesions

- Cyst
- Seborrheic keratosis
- Keloid
- Pigmented nevi
- Warts
- Hemangiomas

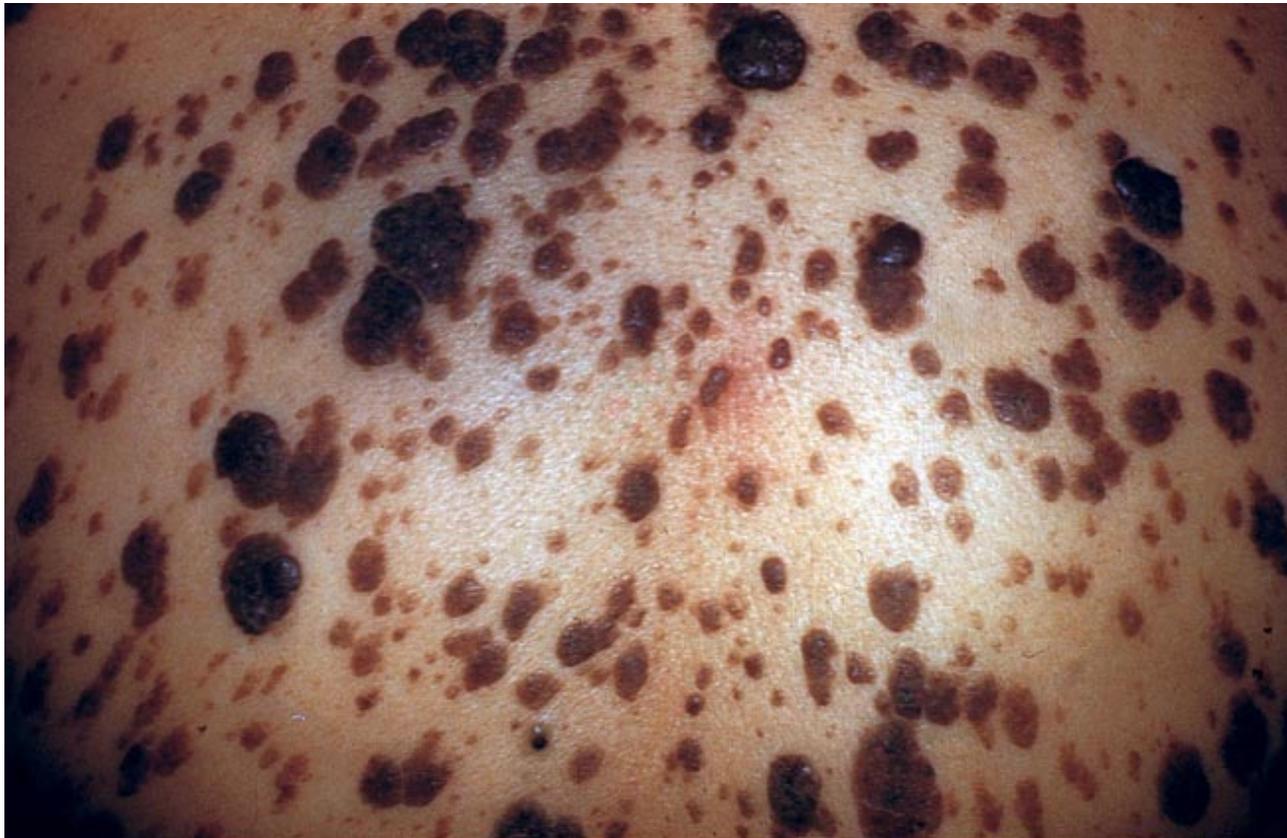
Benign skin lesions

Cyst



Benign skin lesions

Seborrheic keratosis



Benign skin lesions

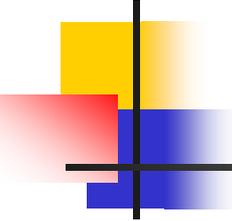
Pigmented nevi



Benign skin lesions

Warts





Dermatologic surgery

- Plastic or reconstructive surgery
 - Corrects
 - Defects
 - Scars
 - Malformations
 - Restores function and prevents further loss of function
 - Usually elective