PEDIATRIC ASSESSMENT

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Head Injuries

- Mechanism
  - Length of fall
  - Helmet?
  - Material or surface of impact
- Physical assessment
  - Loss of consciousness
  - Vomiting
  - Responsiveness, orientation level
    - GCS
    - What's their baseline?
  - Palpable boggy area?
  - Pupillary response
    - Symmetrical? Sluggish?

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Return to Learn and Play

- Close follow up and clearance by a qualified physician
- Gradual, multistep process
  - To return to full participation in school/athletics
  - Monitor for return of any symptoms
    - May need to move back a step for at least 24 hours
- Rest is most important for recovery

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Resources

HEADS UP Online Training Courses | HEADS UP | CDC Injury Center

Brain Injury Association of America (biausa.org)

Seizures

Initial Response

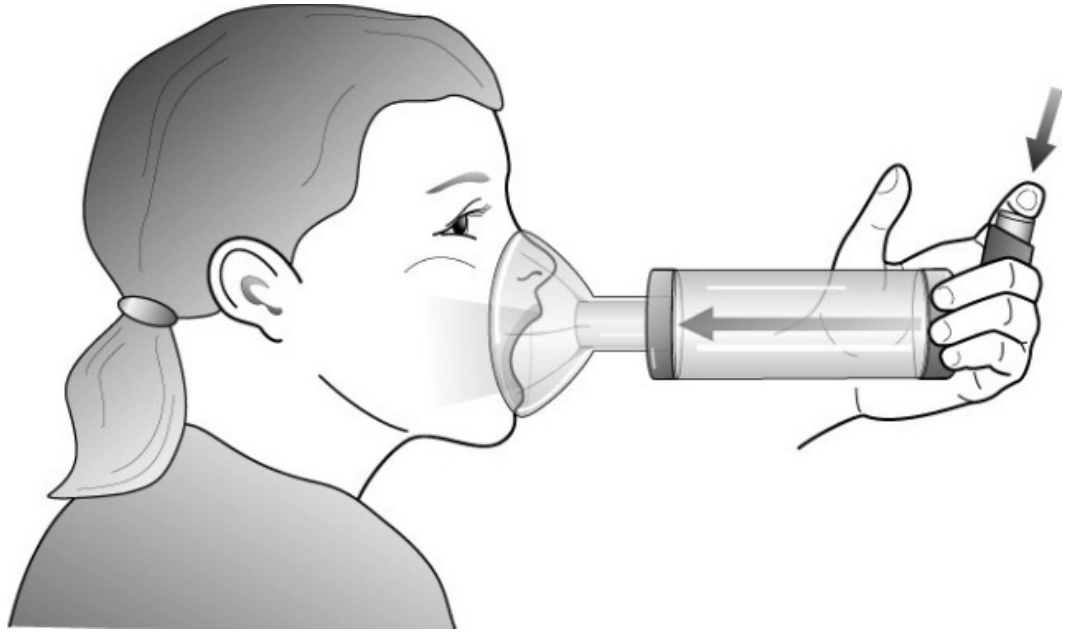
- Help to ground if possible/witnessed
- Remove obstacles that could cause injury
- Timing
- Signs of respiratory compromise
- Rescue meds if appropriate/available

Assessment (Post)

- Return to baseline?
  - Postictal phase? Typical length?
- Prior history
  - How do they “wake up”
  - Typical length
  - Current medications
- Related to another injury

Respiratory

- General Appearance
  - Cyanosis?
- Lung sounds
  - Inhaler use?
    - Spacer?
  - Wheezing or diminished?
- Work of breathing
  - Locations of retractions
  - Positioning



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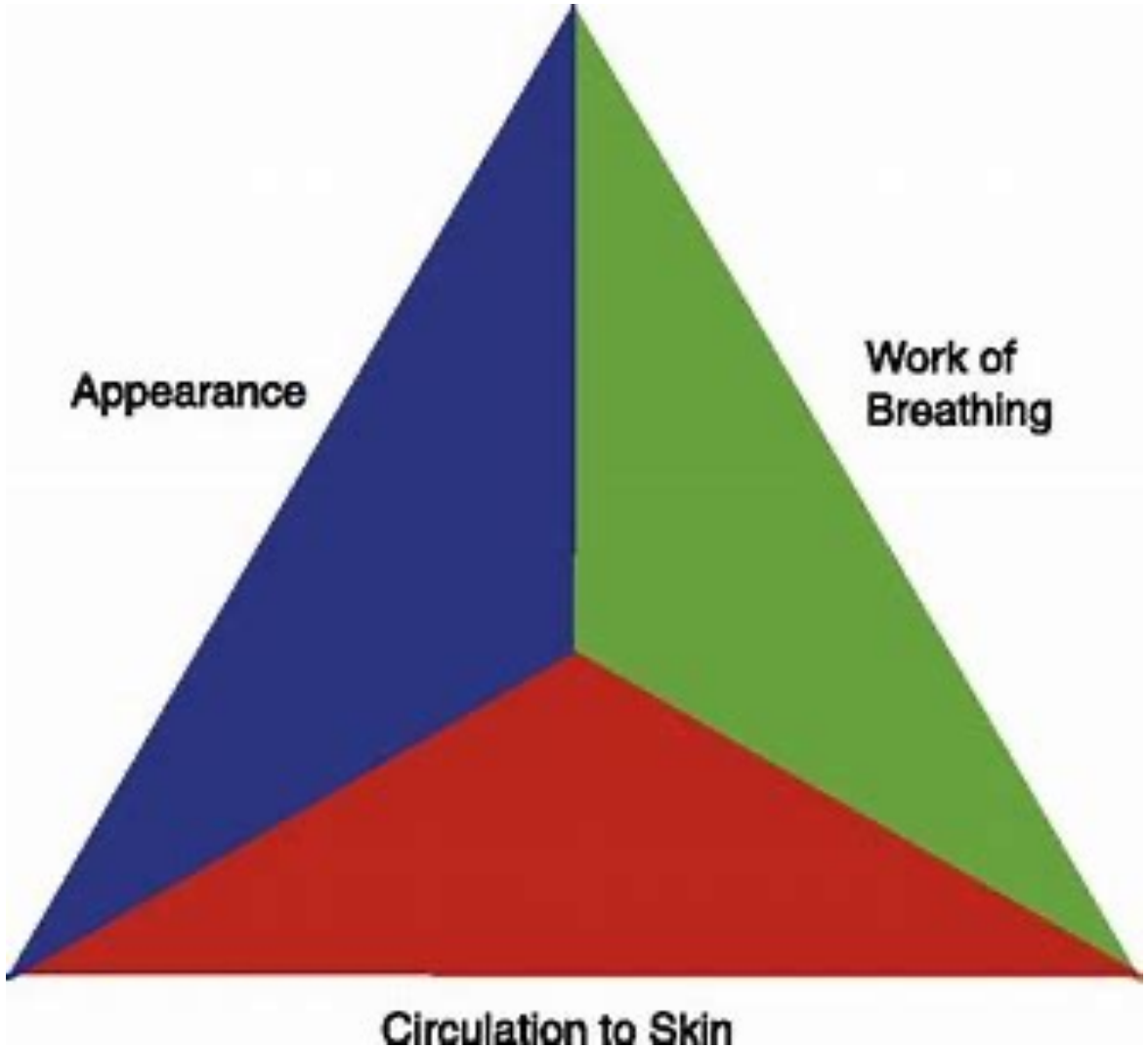
Pediatric Assessment Triangle



Respiratory Scoring

Who:

- History of asthma or albuterol use
- Recurrent cough or wheezing

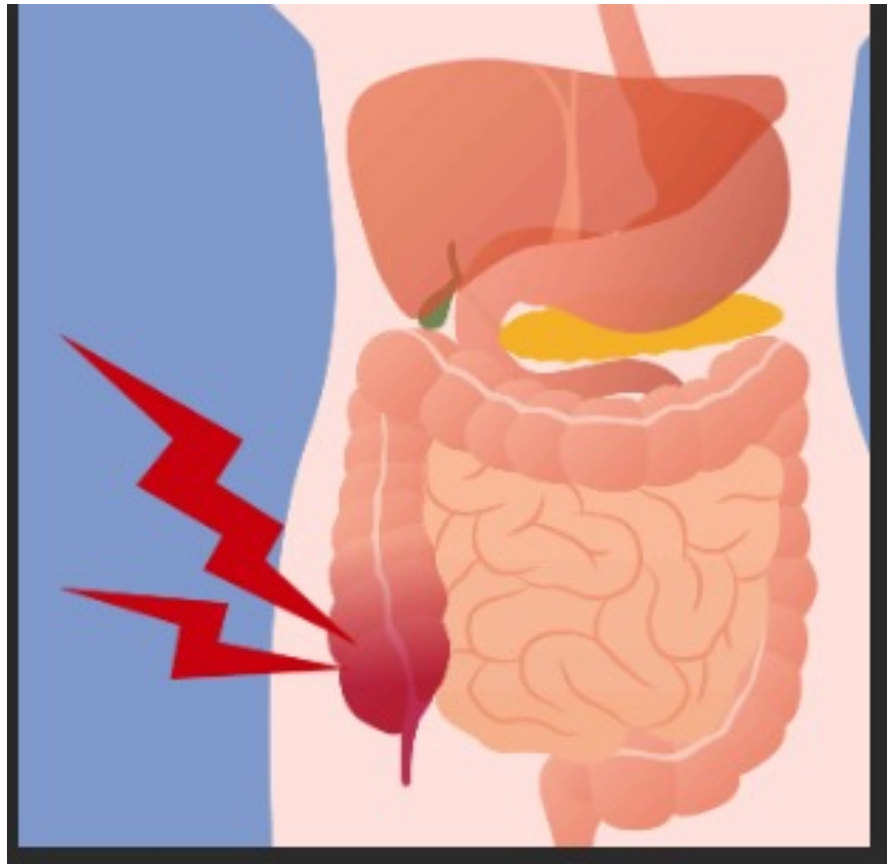
Exclusions:

- Chronic lung disease
- Cystic Fibrosis
- Cardiac history
- Aspiration

Respiratory Score	0 Points	1 point	2 points	3 points
Respiratory Rate				
<2 months		<=60	61-69	>=70
2 months - 1 year		<=50	51-59	>=60
1-2 years		<=40	41-44	>=45
2-3 years		<=34	35-39	>=40
4-5 Years		<=30	31-35	>=36
6-12 Years		<=26	27-30	>=31
>12 Years		<23	24-27	>=28
Retractions	None	1 of the following: Subcostal or intercostal	2 of the following: subcostal, intercostal, substernal OR nasal flaring	3 of the following: intercostal, substernal, subrasternal, supraclavicular, nasal flaring OR head bob
Dyspnea				
0-2 years	Normal activity, feeding and vocalizations	1 of: Difficulty feeding or decreased vocalization or agitated	2 of: difficulty feeding, decreased vocalization or agitated	stops feeding, no vocalization OR drowsy or confused
2-4 years	Normal feeding, vocalization and play	1 of: decreased appetire, increased coughing after play, hyperactivity	2 of: Decreased appetite, increased coughing after play, hyperactivity	Stops eating or drinking, stops playing or drowsy or confused
>4 Years	Counts to >=10 in one breath	counts to 7-9 in one breath	Counts to 4-6 in one breath	Counts to <=3 in one breath
Wheeze	Normal breathing, no wheeze	End expiratory wheeze only	Expiratory wheeze (> end expiratory)	Inspiratory and expiratory OR diminished or both

Appendicitis

- **Assessment Considerations**
  - Right lower quadrant pain
  - Periumbilical pain radiating RLQ
  - Abdominal rigidity
  - Absent or diminished bowel tones
  - Rovsing's Sign
    - Pain in RLQ when palpating LLQ
  - Rebound tenderness with palpation



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Dermatology

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Describing Dermatology

- What color is it?
- Does it blanch?
- Is it itchy?
- Is it oozing?
- How does it feel?

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Causes of Rashes

Viral infections

- Herpes Simplex Virus
- Varicella
- Rubeola
- Rubella
- Roseola

Bacterial Infections

- Abscess
- Boils
- Cellulitis
- Impetigo
- Scarlatina
- Staphylococcal Scalded Skin Syndrome

Fungal Infections

- Candidiasis
- Tinea
- Molluscum Contagiosum

Skin Infestations

- Pediculosis
- Scabies

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Varicella

Chickenpox!

- Transmission through airborne droplets, direct & indirect contact
- Fever, Rash, ulcers, weakness
- Airborne & contact precautions
- Antipyretics, fluids, calamine lotion
- Vaccine

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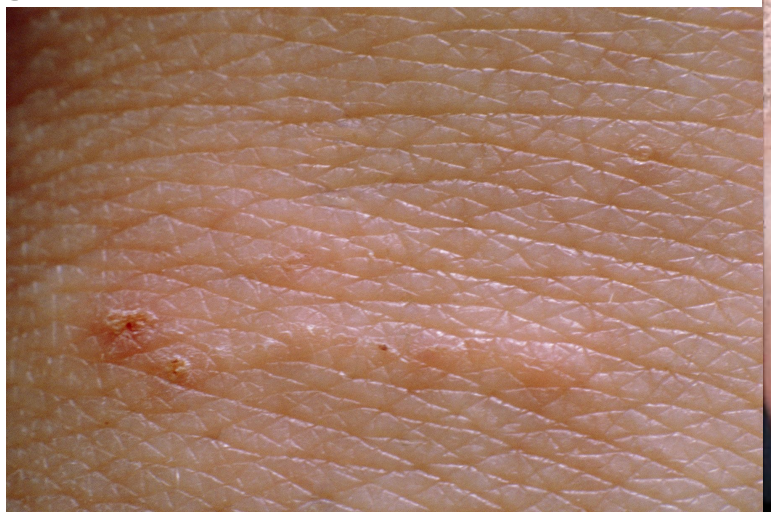
Scabies

- Tiny mites burrow under the skin to lay eggs
- Most often affects:
- Fingers & webbing between fingers
- Armpits
- Sides/bottoms of feet
- Lower buttocks and upper thighs
  - Treated with Permethrin



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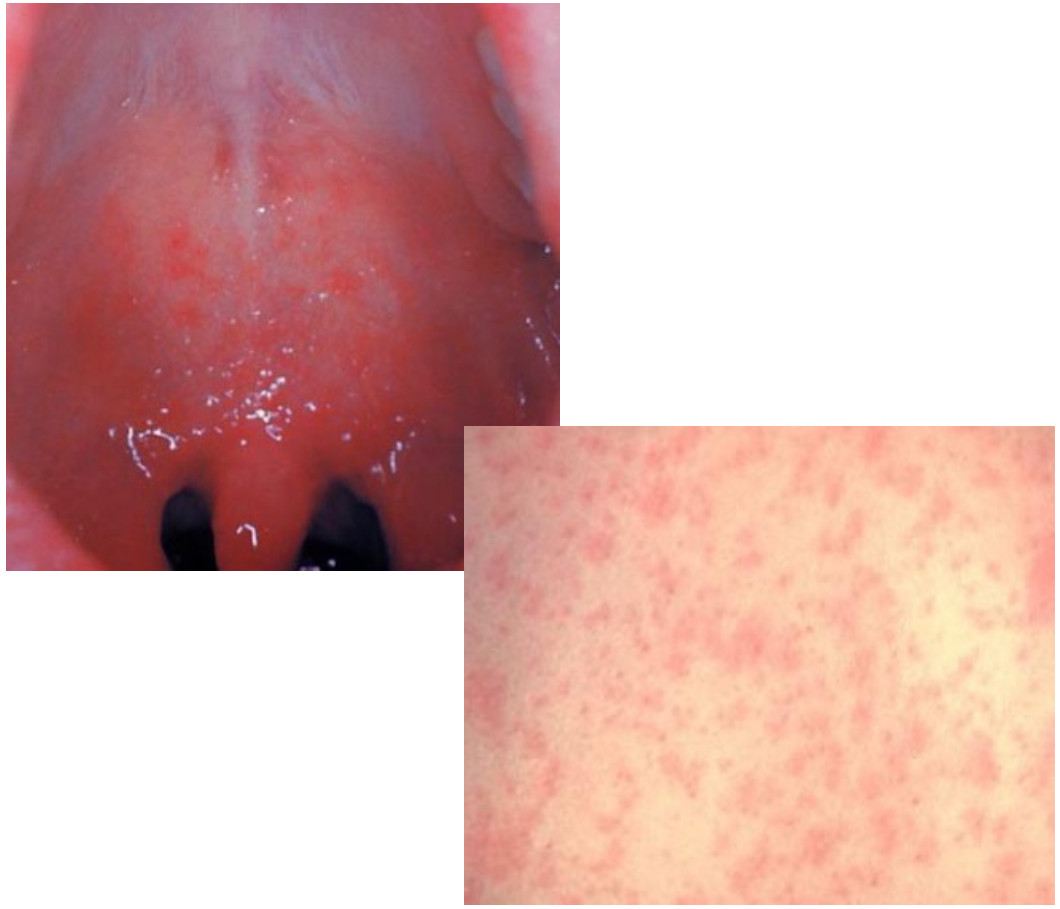
Measles

- Signs and Symptoms
  - High Fever
  - Runny nose
  - Cough
  - Red, watery eyes
  - Koplik spots 2-3 days
  - Rash 3-5 days



Measles Considerations

- Isolation
- Report to health department

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Cellulitis

- Inflammation of the dermis & subcutaneous tissue layers of the skin usually caused by an infection
- Usually caused by Staphylococcus or Streptococcus
- Warm, red skin that is swollen & painful
- Treated with antibiotics, corticosteroids and analgesics

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Abscess

- Collection of pus under the skin
- Erythema, tenderness, warm to touch
- Incision & Drainage vs warm packs
- Antibiotics

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Stevens Johnson Syndrome

- Symmetrical burning rash that begins as a target lesion that spreads to abdomen and back
- Lesions rupture leaving denuded skin
- Increased susceptibility to infection
- Analgesia & Anti-infectives

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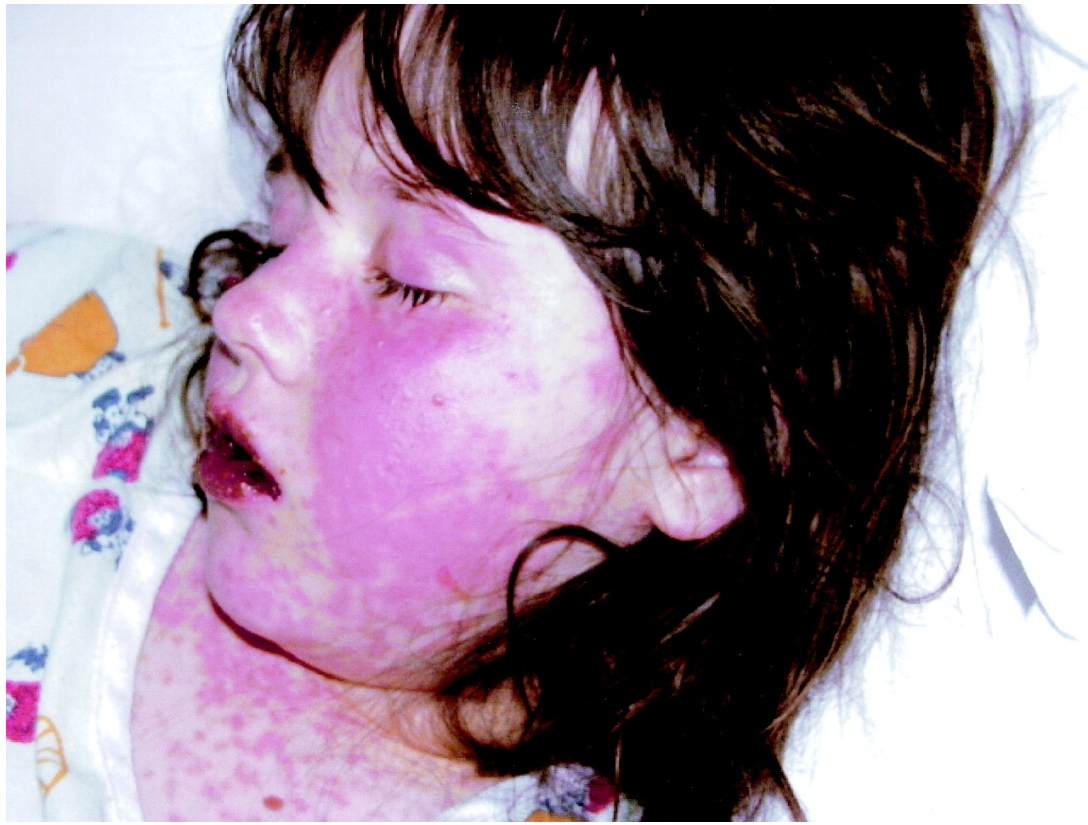
Stevens Johnson Syndrome

- Rare & Serious hypersensitivity reaction to medication or infection
- 33% of cases are idiopathic
- Risk Factors



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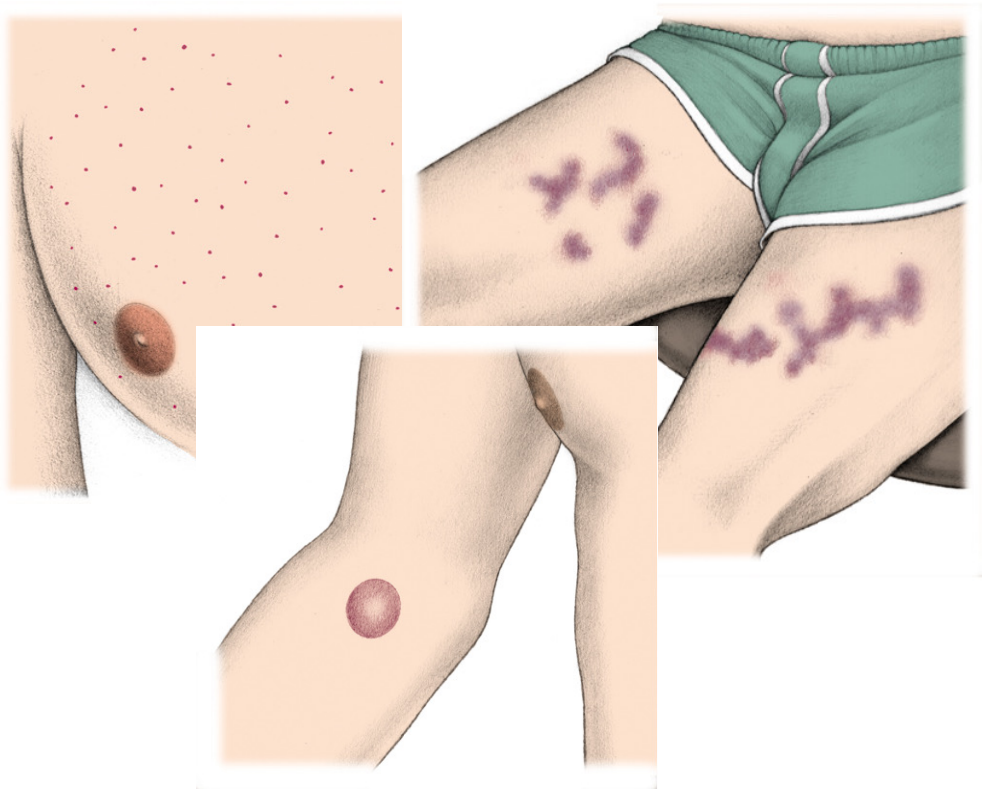
Purpura

- Extravasation of red blood cells into the skin, subcutaneous tissue or mucous membranes
- Visible purplish or brownish-red discoloration
- Do not blanch with pressure
- Types of Purpura



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Purpura

- Causes of Purpura
  - HSP
  - ITP
  - Leukemia
  - Meningococcemia

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Burns

Types of Burns

- Thermal
- Electrical
- Chemical
- Mechanical
- Radiation

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Severity of Burn

Pediatric Burns are treated in a variety of settings depending on the severity of the burn

Depth	Affected area	Symptoms	treatment
Superficial (1st degree)	epidermis	Pain & erythema	5-10d
Partial thickness (2nd degree)	Epidermis & dermis	Blister +/- scarring	14-21d
Full thickness (3rd degree)	Epidermis, dermis, & subcutaneous	Destruction of nerve endings, sweat glands, & hair follicles. No blanching	Weeks-months Requires grafting
Deep full thickness (4th degree)	Involvement of muscle, fascia, & bone	No pain. Scarring.	Weeks-months Requires grafting

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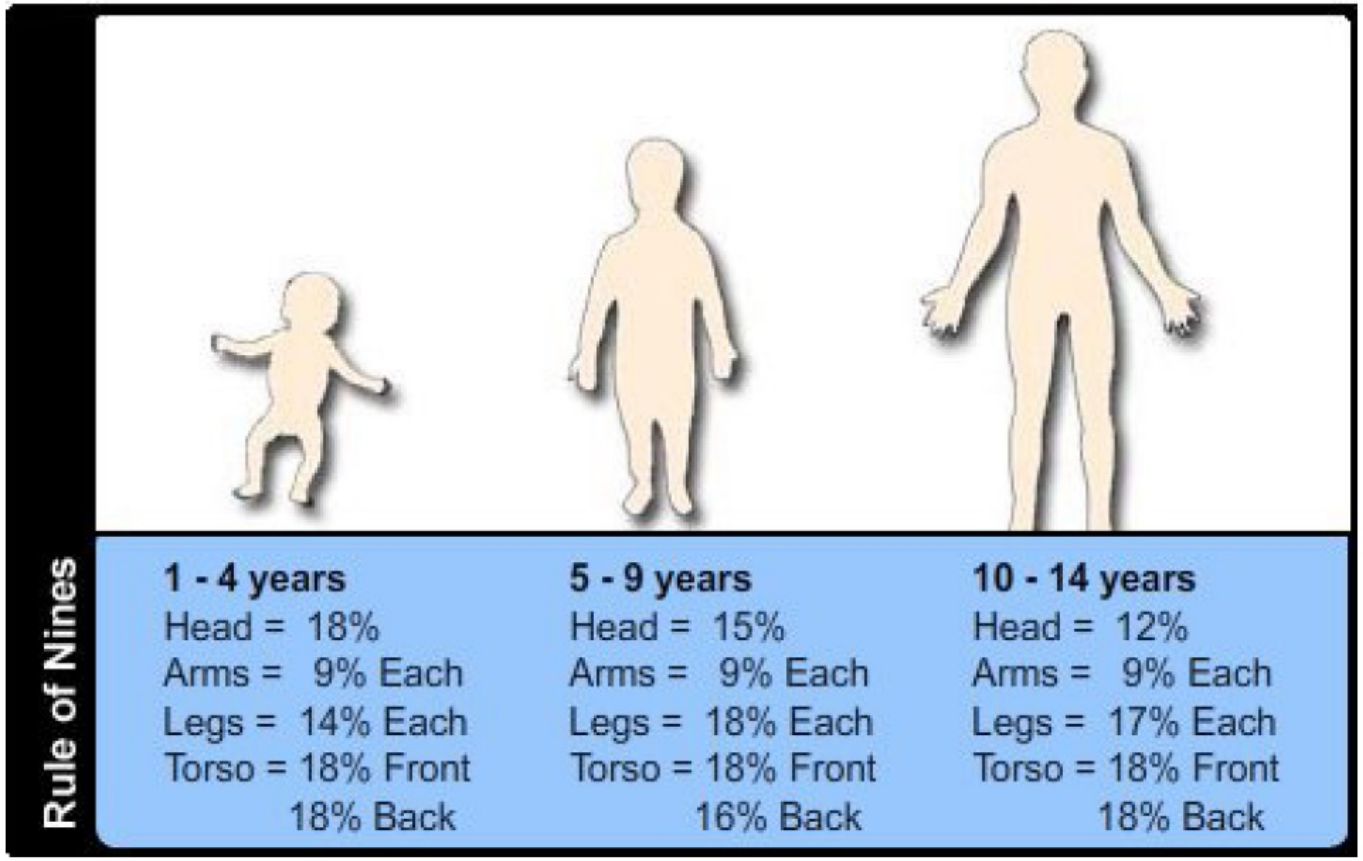
Body Surface Area – Rule of Nines



Children's Hospital Association, 2022

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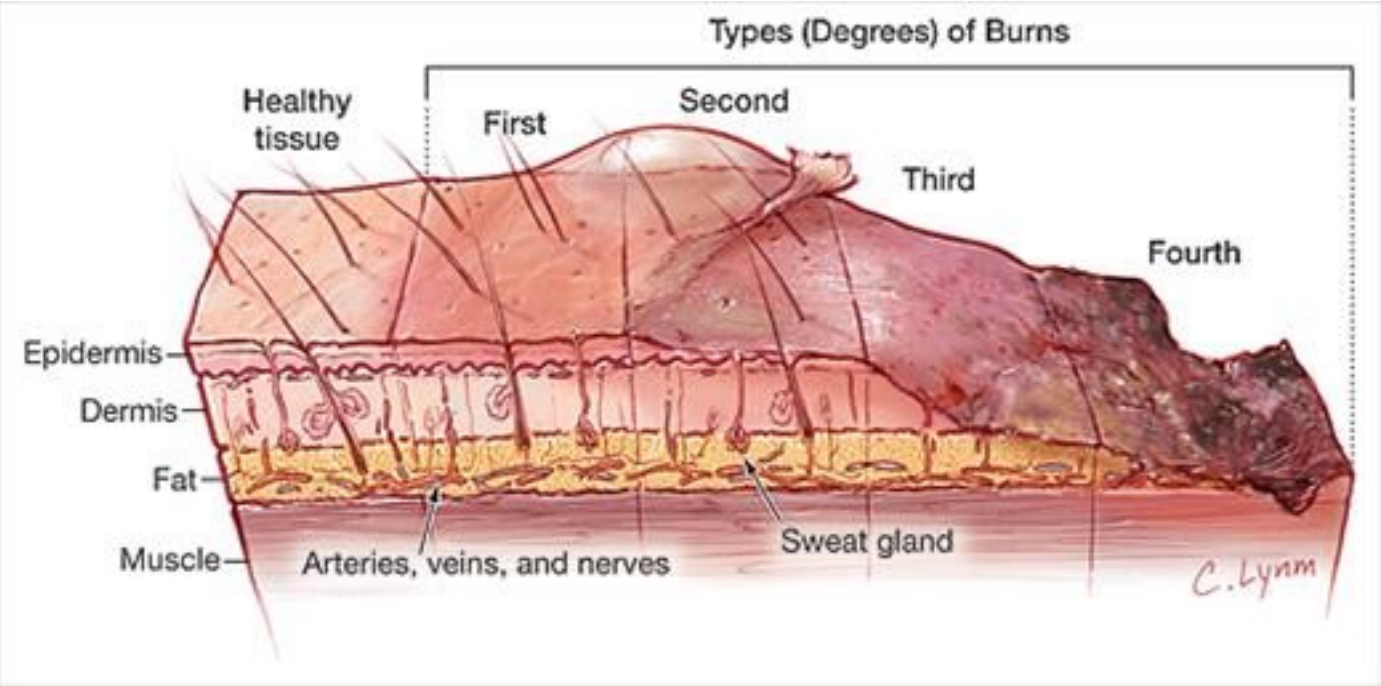

Burn Description

Described by how deep into the skin the burn has gone

Common Causes of Burns by Age Group

Infants – Toddlers – Preschoolers

- Thermal Burns
  - Pulling at hot liquids
- Electrical
  - Chewing on cords
- House Fires
- Non-accidental

School Age

- Fire
- Radiation
- Sun without protection
- Chemical exposures

Adolescents

- Overexposure
- Playing with matches
- Ingestions
- accidental & intentional
- Flash burns
- Gas & kerosene

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Burn Injuries

Initial

- Edema & Inflammation
- Loss of skin's protective layer
  - Decreased ability to preserve heat
  - Decreased protection from infection
  - Increased insensible fluid losses

Secondary

- CO poisoning
- Cardiac arrhythmias
- Deep tissue burns
- Inhalation injury

Orthopedic

Fractures

Assessment

- Open vs closed
- Circulatory compromise
- Motor response
- Sensation
- Secondary injury depending on mechanism

Initial Care

- Control bleeding if necessary
- Splinting
  - Recheck circulation
  - Position of comfort
- Ice
- Elevation
- Transport

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Cast/Splint Care

- Assess skin around edges of cast for irritation
- Keep cast clean and dry
- Assess for circulatory compromise distal to cast
- Ice and elevation
- Have patient wiggle fingers/toes frequently

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Compartment Syndrome

Increased pressure within an enclosed body compartment

- Signs and symptoms:
  - Disproportional pain; pain on passive stretch
  - Motor weakness; paralysis
  - Excessive edema; swelling and tenderness
  - Loss of pulses

Compromises muscle and nerve perfusion

Leads to ischemia and tissue death

Most common in anterior compartment of lower leg

Acute

Damage causing swelling -> increased pressure -> compresses vessels and tissue -> decreased circulation -> decreased oxygenation

75% of acute cases related to fractures