Pediatric Burn Injuries
Top Types of Burns for Pediatrics

- Scald: 55%
- Contact: 23%
- Fire/Flame: 18%
- Electrical: 2%
- Chemical: 2%

Interesting Fact
Preparing or consuming Noodles is the most common reason given for pediatric scald burn. Mentioned in 13% of all scald H&P narratives.
Scald Burns
- Most common thermal injuries in children less than 3 years of age
- Prevalent in Child abuse

Flame Burns
- Most common thermal injuries in children over 3 years of age.
Skin Function

- Barrier against Infection
- Temperature Regulation
- Prevents fluid loss
- Cosmesis
Primary Survey

- **A**irway with C-spine protection
- **B**reathing and ventilation
- **C**irculation, cardiac status with hemorrhage control
- **D**isability, neurological deficit and gross deformity
- **E**xposure, Examine, Environment
Relatively small airway

Less edema is needed to develop obstruction
Larynx more anterior than in adult
Glottis more angulated and more anterior
Narrowest point is cricoid, not glottis
Insert NGT for decompression which will help to eliminate swallowed air
Gauge ETT size by use of Broselow Tape

- Diameter of child’s nares
- Diameter of small finger or use formula
- $16 + \text{age in years} / 4$
Initial Assessment and Management

Breathing

- Normal use of abdominal muscles when breathing
- Ensure bilateral breath sounds
- Obtain CXR for tube placement
- Secure tubes
Initiate fluid resuscitation immediately

Establish early IV access:
  - Peripheral
  - IO
  - Central Access

Initial Assessment and Management
Initial Assessment and Management

Circulation

Prehospital and during primary triage in hospital

- 5 years old and younger: use LR @ 125ml/hr
- 6 – 14 years old: use LR @ 250ml/hr
- Fluid for child <10kg: use D5LR
Initial Assessment and Management

Disability

- Assess level of consciousness
- Hypoglycemia
- Hypoxia
Initial Assessment and Management

Expose, Examine & Environment Control

- Remove all clothing including diaper
- Assess for associated or pre-existing injuries
- Cover with clean, dry linens
- Conserve body heat
Secondary Survey

History

- Events leading to injury
- Past medical history
- Immunization history
- Allergies
- Consider potential for abuse
Secondary Survey

Calculate TBSA Burn

- Bigger head
- Smaller legs
- Palmer method
  (Infant hand – 1%)

Front and Back totals
Fluid resuscitation formulas are ESTIMATES only!!

Titrate IVF to maintain U/O of 1ml/kg/hr
Transfer Criteria

- Partial and Full-thickness burns to:
  - Face
  - Feet
  - Hands
  - Genitalia
  - Perineum
- Inhalation injury
- Chemical injury
- Electrical injury
Thank-you