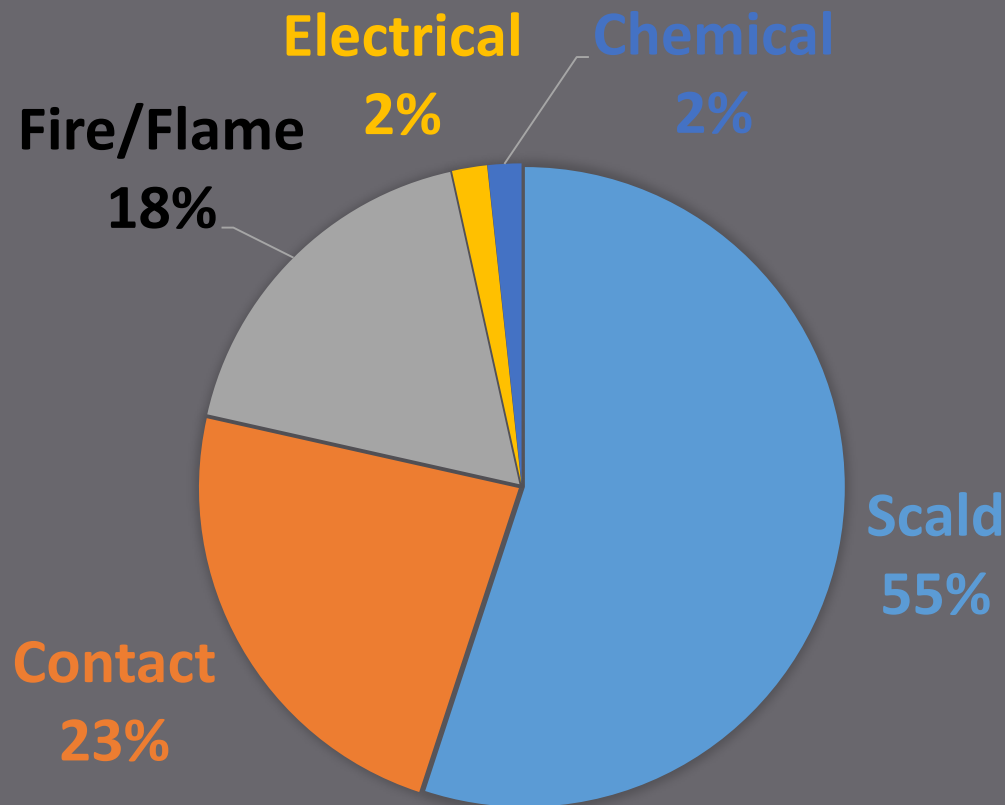


Pediatric Burn Injuries



Top Types of Burns for Pediatrics



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

Epidemiology

Scald Burns

- ▣ Most common thermal injuries in children less than 3 years of age
- ▣ Prevalent in Child abuse



Flame Burns

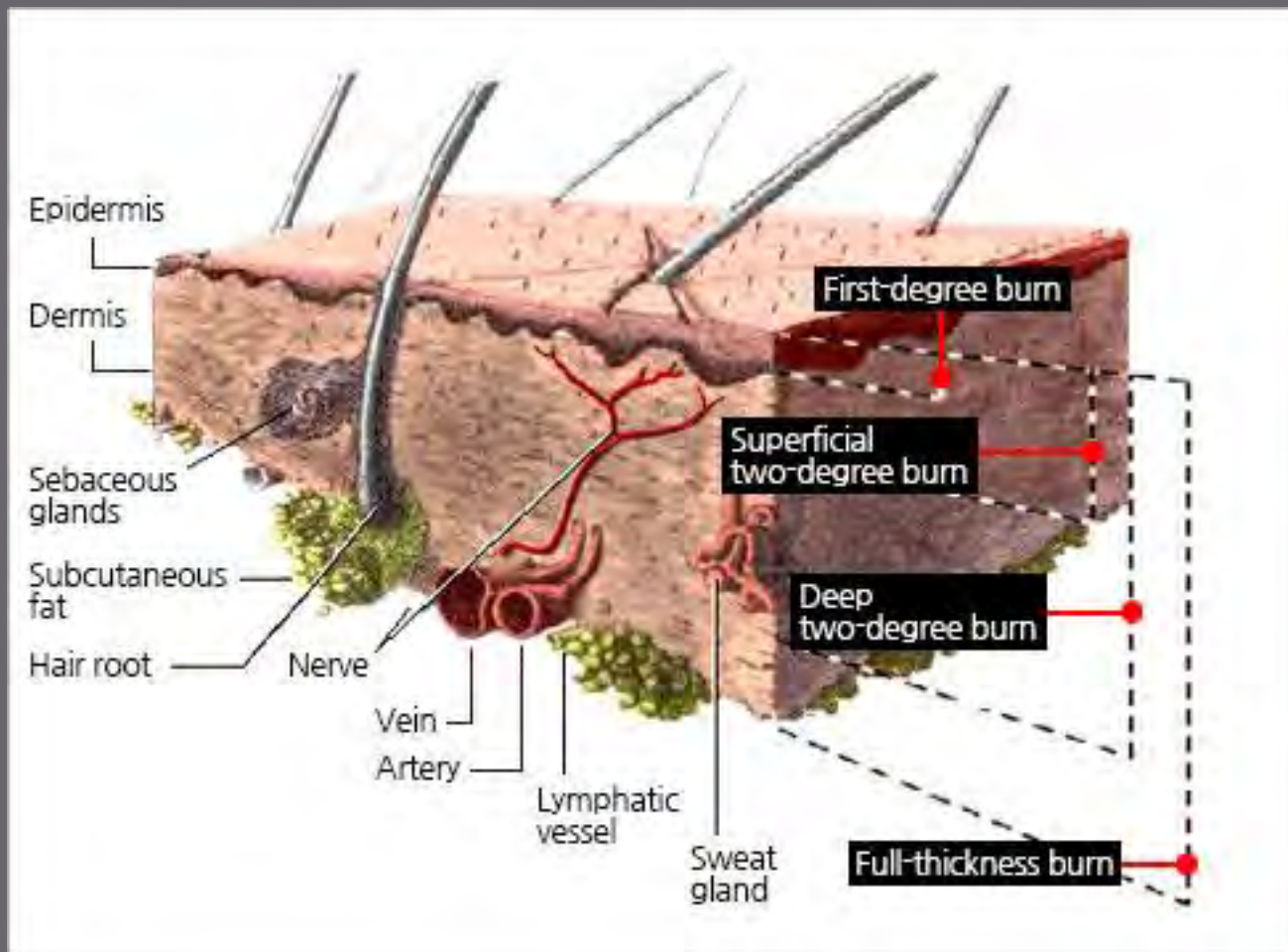
- ▣ Most common thermal injuries in children over 3 years of age.



Skin Function

- ▣ Barrier against Infection
- ▣ Temperature Regulation
- ▣ Prevents fluid loss
- ▣ Cosmesis

Burn Classification



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

Initial Assessment and Management

Airway

- Relatively small airway
- Less edema is needed to develop obstruction

Initial Assessment and Management

Airway Anatomical Considerations

- ▣ 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

Initial Assessment and Management

Airway

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

Initial Assessment and Management

Circulation

- Initiate fluid resuscitation immediately
- Establish early IV access:
 - Peripheral
 - IO
 - Central Access



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

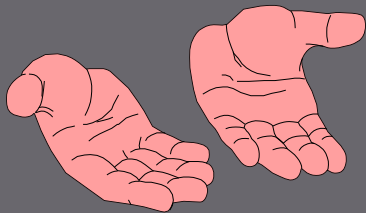
History

- ▣ 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



Secondary Survey

Fluid Resuscitation

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

