Trauma: Burns – Adult

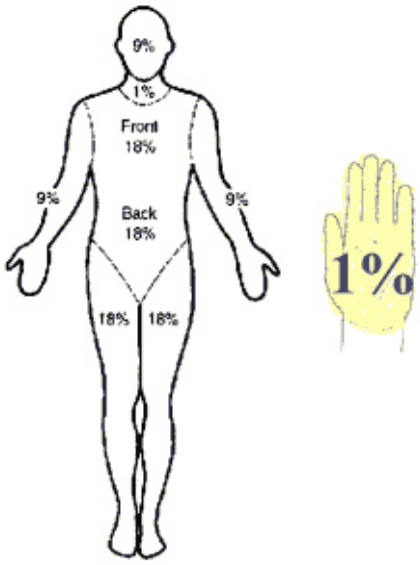
All Providers

- General Patient Care Protocol – Adult
  - Stay focused on ABC's, don't get side tracked by burn!
  - DON'T BECOME A SECOND VICTIM!
- Remove or cool heat source if present (e.g. clothing, tar)
  - Cool burns with room temperature water for 3-5 minutes only – NEVER COOL WITH ICE! The goal is to bring burns to room temperature, not cold.
  - Tar burns may take an extended time to cool.
- Remove all clothing, contact lenses, and jewelry, especially rings
- Maintain core temperature. Keep patient warm and dry with sheets and blankets. Cover burns with plastic wrap, plastic chucks, clean, dry dressings, or aluminum foil.
- Place large bore peripheral IV in unburned skin if possible. If TBSA % greater than 30%, place 2 large bore peripheral IV's.
- **2nd Degree burns – greater than 10% total body surface area or those on hands, feet, face, or groin**
- **3rd Degree burns**
- **Electrical burns**
  - Spinal immobilization if high voltage electrical injury
  - Monitor for cardiac arrhythmias
  - Initiate fluid resuscitation immediately
- **Chemical burns**
  - Remove clothing
  - If dry powder is present, brush away before irrigating
  - Flush with copious warm water on scene and continue irrigation enroute to UW Hospital
  - Chemical injuries to eyes are an EMERGENCY. Remove contacts and irrigate continuously with normal saline for at least 30 minutes.
  - Avoid hypothermia

Advanced Life Support

- Observe for signs of impending loss of airway; refer to the **Airway Management Protocol** as needed
  - Hypoxia
  - Poor ventilatory effort
  - Altered mental status or decreased level of consciousness
  - Inability to maintain patent airway
  - Signs or symptoms of inhalation injury

        - Carbonaceous sputum
        - Extensive facial burns or facial edema
        - Hoarseness
        - Singed nasal hairs
        - Agitation, anxiety, cyanosis, stupor, or other signs of hypoxia
    - If inhalation injury is suspected, early intubation is preferred
    - Place patient on 100% oxygen – DO NOT DECREASE
- If moderate to severe pain, see **Pain Management Protocol**
    - Preferred treatment – IV Morphine
- Estimate Total Body Surface Area (TBSA)
    - Rule of Nines
    - For scattered burns, use the size of patient's hand, including fingers, to equal 1% burn.



    - If greater than 20% TBSA of 2nd and 3rd degree burns, initiate volume resuscitation with Lactated Ringers
        - Start with Lactated Ringers at 500ml/hr
        - Specific fluid resuscitation based on TBSA and weight will occur at initial hospital or Burn Center

Trauma: Burns – Pediatric

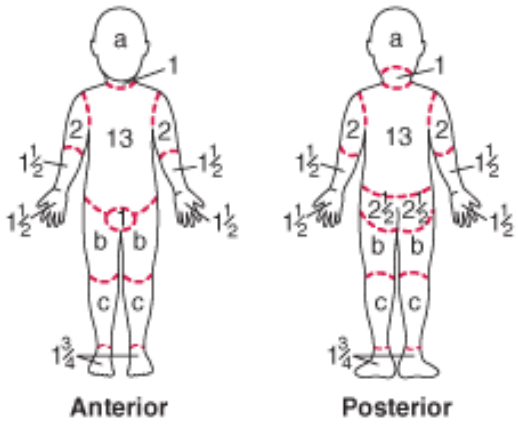
All Providers

- General Pediatric Patient Care Protocol
  - Stay focused on ABC's, don't get side tracked by burn.
  - DON'T BE A SECOND VICTIM!
- Remove or cool heat source if present (e.g. clothing, tar)
  - Cool burns with room temperature water for 3-5 minutes only – NEVER COOL WITH ICE! The goal is to bring burns to room temperature, not cold.
  - Tar burns may take an extended time to cool.
- Remove all clothing, contacts, and jewelry, especially rings
- Keep patient warm and dry with sheets and blankets. Cover burns with plastic wrap, plastic chucks, clean, dry dressings, or aluminum foil.
- Place large bore peripheral IV in unburned skin if possible. If TBSA % greater than 30%, place 2 large bore peripheral IV's.
- **2nd Degree burns – greater than 10% of total body surface area or those on hands, feet, face, or groin**
- **3rd Degree burns**
- **Electrical burns**
  - Spinal immobilization if high voltage electrical injury
  - Monitor for cardiac arrhythmias
  - Initiate fluid resuscitation immediately
- **Chemical burns**
  - Remove clothing
  - If dry powder is present, brush away before irrigating
  - Flush with copious warm water on scene and continue irrigation enroute to UW Hospital
  - Chemical injuries to eyes are an EMERGENCY. Remove contacts and irrigate continuously with normal saline – DO NOT STOP.

Advanced Life Support

- Observe for signs of impending loss of airway; refer to the **Airway Management Protocol** as needed
  - Hypoxia
  - Poor ventilatory effort
  - Altered mental status or decreased level of consciousness
  - Inability to maintain patent airway
  - Signs or symptoms of inhalation injury
    - Carbonaceous sputum
    - Extensive facial burns

    - Hoarseness
    - Singed nasal hairs
    - Agitation, anxiety, cyanosis, stupor, or other signs of hypoxia
  - If inhalation injury is suspected, early intubation is preferred
  - Place patient on 100% oxygen – DO NOT DECREASE
- If moderate to severe pain, see **Pain Management Protocol**
  - Preferred treatment – IV Morphine
- Estimate Total Body Surface Area (TBSA)
  - Rule of Nines



	Age				
Body Part	**0 yr**	**1 yr**	**5 yr**	**10 yr**	**15 yr**
A = whole head	19	17	13	11	9
B = thigh	5 ½	6 ½	8	8 ½	9
C = lower leg	5	5	5 ½	6	6 ½

  - If greater than 20% TBSA of 2nd and 3rd degree burns, initiate volume resuscitation with Lactated Ringers
    - Less than 5 years old, start Lactated Ringers at 125ml/hr
    - 6-13 years old, start Lactated Ringers at 250ml/hr
    - 14 years and older, start Lactated Ringers at 500ml/hr
    - Specific fluid resuscitation based on TBSA and weight will occur at initial hospital or Burn Center
    - For High Voltage electrical injuries, consult the Burn Center immediately through the Access Center 608-263-6796