

## BURN PATIENT CARE

### Routine Medical Care

- Rescuer safety
- Assume airway/respiratory involvement
- Stop the burning process - **DO NOT USE COLD PACKS**
- Assess for associated trauma

### A. BASIC MANAGEMENT

#### 1. Rule out airway damage

- 1.1 Assess for **thermal airway** injury and **smoke inhalation**
- 1.2 High flow oxygen is critical
- 1.3 Be prepared for intubation

#### 2. Assess and expose

- 2.1 Assess ABCs
- 2.2 Perform a mini neurological exam - level of consciousness
- 2.3 Expose and examine the patient for other areas of burn
- 2.4 Remove jewelry, but do not remove stuck clothing

#### 3. Start IVs

- 3.1 Two large bore IVs (for major burns)

#### 4. Give IV fluids

- 4.1 Any patient regardless of age with suspected 2nd and 3rd degree burns over 20% TBSA, should be given IV with Normal Saline at the below rate. Boluses are discouraged except in cases of shock.

➔ **Adult:** 500 cc/hour (80 drops/min)

➔ **Pediatric:**

- ≤ 5 years old: 125 cc/hour (20 drops/min)
- 6-12 years old: 250 cc/hour (40 drops/min)
- ≥ 13 years old: 500 cc/hour (80 drops/min)

#### 5. Document severity and treat the pain

- 5.1 Estimate the severity of the burns using the “Rule of 9s” and “Rule of 1s”
- 5.2 **Treat pain.** Pain management should be considered mandatory for moderate to severe burns. See Pain Management Policies – Adult ([page 41](#)) and Pediatric ([page 66](#))

#### 6. Protect against hypothermia and infection - dress burns

- 6.1 Keep patient warm to prevent hypothermia (use sheets or blankets)
- 6.2 Burns involving less than 10% TBSA (Total Body Surface Area):
  - ➔ Pour cool running water on the affected area for 20 minutes
    - Use available tap water (e.g., garden hose) for cooling, sterile water is not necessary. Do not delay transport to complete the full 20 minutes.
  - ➔ Apply a dry sterile dressing
- 6.3 Burns involving greater than or equal to 10% TBSA:
  - ➔ Apply a dry sterile dressing

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### 7. Elevate burned body parts - 30°

### 8. Address psychological needs

- 8.1 Be honest and compassionate
- 8.2 Consider anxiolytics – **Contact Base Physician for midazolam**

### 9. Maintain body temperature and observe for hypothermia

#### B. ELECTRICAL BURNS

1. Turn off the power source if patient is still attached
2. See first responder defibrillation protocol if patient is unconscious and pulseless

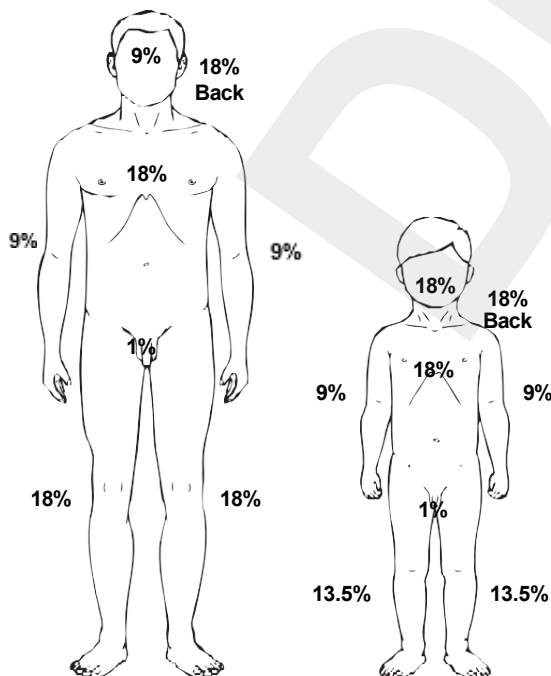
#### C. TAR BURNS

1. Do not attempt to remove the tar
2. Cool with water
3. **Maintain body temperature and observe for hypothermia**

#### D. CHEMICAL BURNS

1. Remove clothing
2. **Liquid chemicals:**  
→ Flush **immediately** with copious amounts of tepid water for 15 - 20 minutes
3. **Dry chemicals:**  
→ Brush off as much as possible, then flush with copious amount of tepid water for 10 - 15 minutes
4. Identify chemical
5. Assess for associated respiratory burns

#### Rule of 9s



#### Rule of 1s

Patient's palm and fingers are 1% TBSA



**BURN PATIENT CRITERIA**

1. **INTRODUCTION** -The intent of this policy is to transport patients with critical burns, who have a manageable airway, directly to a facility that is staffed and equipped to care for the medical needs of the patient, bypassing other receiving facilities. Minor to moderate burn patients will be transported to the closest, most appropriate receiving hospital.
2. **BURN PATIENT CRITERIA** (from the American Burn Association – Burn Unit Referral Criteria)
  - 2.1 Partial thickness burns greater than 10% total body surface area
  - 2.2 Moderate to severe burns that involve the face, hands, feet, genitalia, perineum, or major joints
  - 2.3 Full thickness burns in any age group
  - 2.4 Electrical burns, including lightning injury
  - 2.5 Chemical burns
  - 2.6 Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality
  - 2.7 **Inhalation injury**
3. **DESTINATION**
  - 3.1 **Adult and Pediatric patients** who meet burn patient criteria 2.1-2.6 may be transported directly to an out-of-county burn center (see #5 below).
  - 3.2 Exceptions:
    - 3.2.1 **Potentially unmanageable airway** - (e.g. - soot in the mouth and/or nose, inhalation injury, etc.) transport to the closest trauma center.
    - 3.2.2 **Unmanageable Airway** - The patient requires intubation, and the paramedic is unable to intubate, and an adequate airway cannot be maintained with B.V.M. device, transport to closest basic E.D.
    - 3.2.3 **Patient meets Critical Trauma Patient Criteria** – “Mental Status & Vital Signs” - transport to the closest most appropriate designated trauma center
4. **OUT-OF-COUNTY TRANSPORT**
  - 4.1 Transporting medic ***must*** first contact out-of-county hospital to confirm bed availability. This can be done through the appropriate dispatch center or via **phone or radio** from the field
  - 4.2 Contact the Base Physician if medical consultation is needed
  - 4.3 Consider EMS Aircraft transport for land transport times greater than 45 minutes
  - 4.4 Give a brief report to the receiving facility including ETA

**Out-of-County Burn Centers:**

<b>FACILITY</b>	<b>TRAUMA</b>	<b>HELIPAD</b>	<b>LOCATION</b>	<b>PHONE #</b>
Santa Clara Valley Medical Center	YES	YES	751 S. Bascom Ave., San Jose	(408) 885-6666
UC Davis Medical Center	YES	YES	2315 Stockton Blvd., Sacramento	(916) 734-3636
St. Francis Memorial Hospital <b>(Adult Patients Only; ≥15yrs)</b>	NO	NO	900 Hyde Street, San Francisco	(415) 353-6255