

# CENTRAL CALIFORNIA EMERGENCY MEDICAL SERVICES

A Division of the Fresno County Department of Public Health

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 530.24
Subject	Paramedic Treatment Protocols  <b>BURNS</b>	Page 1 of 3
References	Title 22, Division 9, Chapter 4 of the California Code of Regulations	Effective Fresno County: 01/15/82 Kings County: 04/10/89 Madera County: 06/15/85 Tulare County: 04/19/05

STANDING ORDERS	
1. Assessment	ABCs
2. Secure Airway	Protect with position, basic airway maneuvers, pharyngeal airway, advanced airway if indicated, assist respirations as needed, suction as needed.
3. Oxygen	Low flow. High flow if inhalation injury, possible carbon monoxide exposure, TBSA burns greater than 15% or patient is unstable. Refer to EMS Policy #530.02.
4. Cardiac Monitor	Treat rhythm if appropriate.
5. Transport	Minimize on scene time.
6. IV Access	LR 150 ml/hour – standard tubing.  <i>If transport time is less than 30 minutes and there are no complications, defer IV until after hospital arrival.</i>  Pediatrics – LR 10cc/kg/hr. (For pediatric transports greater than one hour, contact Base for IV fluid orders.)
7. Sterile Dressings/Burn Sheets	Small burns (less than 15% body surface area) – cover with moist sterile dressings. Large burns (greater than 15% body surface area) – cover with dry sterile dressings. Do not dress facial burns.
8. Fentanyl	For severe pain, no altered mental status, no other co-existing trauma, and systolic BP greater than 100, 25-100 mcg IV/IM/IN push every 5 minutes until pain is relieved or a change in level of consciousness. Recheck BP before each dose.  Pediatrics – 1 mcg/kg/dose IV/IM/IN push every 5 minutes until pain is relieved or a change in level of consciousness. Recheck BP and respiratory rate before each dose.
9. Contact Hospital	Per EMS Policy #530.02.

Approved By	Signatures on File at EMS Agency	Revision
EMS Division Manager		05/01/2014
EMS Medical Director	Signatures on File at EMS Agency	

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### SPECIAL CONSIDERATION AND PRIORITIES

1. Assessment – Airway burns, singed nose or facial hair, lung sounds, nature and extent of the burn, mental status, smoke inhalation, duration of exposure.
2. Transport light/siren if airway burns or respiratory distress, unmanageable airway, major trauma, or condition is deteriorating despite treatment.
3. Consider all patients in an enclosed space confinement fire to have carbon monoxide exposure.
4. For thermal burns, remove patient from source of the burn to fresh air. Remove burning or smoldering clothing.
5. For chemical burns, refer to Haz Mat protocols (Policy #690). Under direction of Incident Commander and Base Hospital, wear protective clothing and gloves. Remove all contaminated clothing. Wash with copious amounts of water (Exceptions: metallic sodium or lithium). Do not scrub. Sterile water or normal saline is preferable, but any available water may be used.
6. Patients with electrical burns need cardiac monitoring, IV access and Base contact for any rhythms requiring ACLS therapy.
7. Patients should be transported directly to the Regional Burn Center (Regional Medical Center) bypassing other hospitals if ETA to RMC is within two hours.
  - a. Patients with 2° (partial thickness) or 3° (full thickness) burns that are more than 10% total body surface area,
  - b. Patients with 2° (partial thickness) or 3° (full thickness) circumferential burns of any part,
  - c. Patients with 2° (partial thickness) or 3° (full thickness) burns to face, hands, feet, major joints, perineum, or genitals,
  - d. Electrical burns with voltage greater than 120 volts,
  - e. Patients with chemical burns greater than 10% total body surface area, and
  - f. Any patient meeting trauma triage criteria to Regional Medical Center.
8. Electrical injuries that result in cardiac arrest should be treated aggressively with respiratory support, Base contact, and ACLS per protocols.

Alternating current (AC) frequently results in ventricular fibrillation.

Direct current (DC) frequently results in asystole.

Both have a relatively high rate of spontaneous return to sinus rhythm with ventilatory support.

9. Further Evaluation:

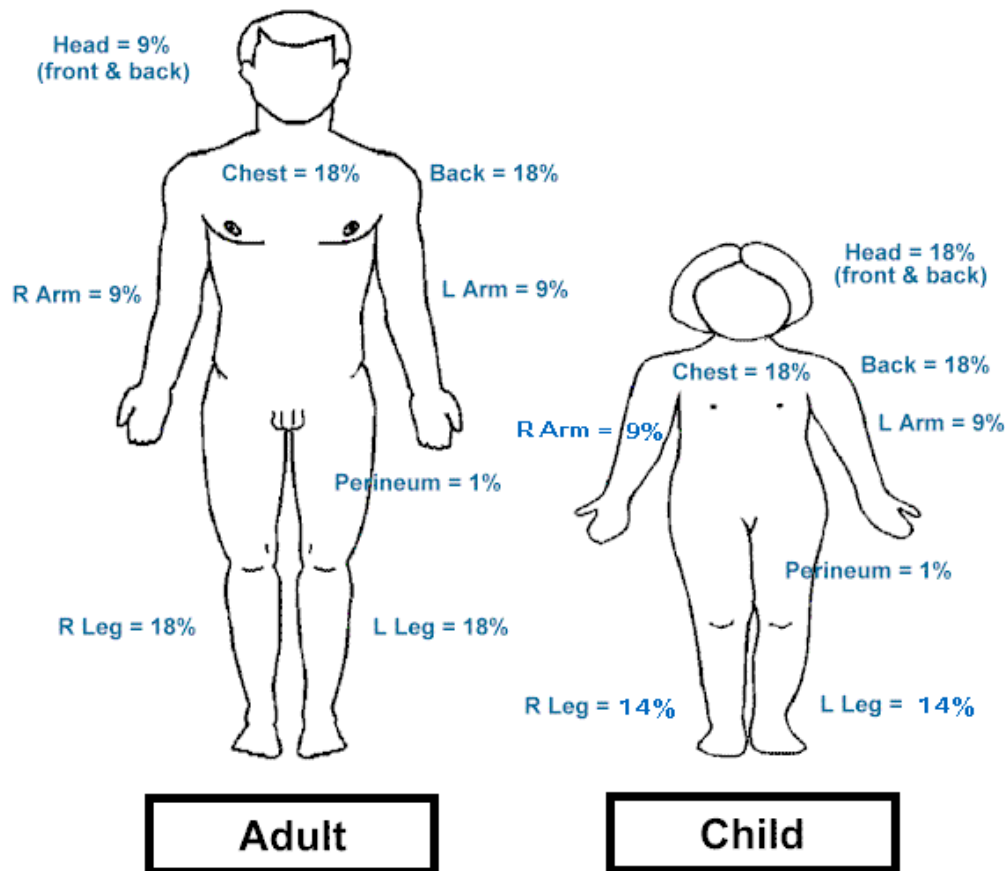
A. History

1. Type of burn (thermal, chemical, electrical, radiation)
2. Enclosed space? Blast?
3. Blunt trauma?
4. Associated trauma?
5. Duration of exposure?
6. Time of occurrence?
7. If chemical, what type?

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8. If electrical, what voltage/amperage?
  9. LOC?
- B. Physical Exam
1. Airway
    - a. Oral or nasal burns?
    - b. Nasal hairs burnt?
    - c. Blisters or soot in mouth?
    - d. Soot in sputum?
  2. Percentage of Body Surface Burned – Rule of 9s
  3. Depth of Burn
    - a. “Superficial” (First Degree) – Erythema only
    - b. “Partial Thickness” (Second Degree) – Blisters, sensation and capillary refill present
    - c. “Full Thickness” (Third Degree) – White or charred, firm to touch, lack of sensation
  4. Involvement of eyes, hands, feet, airway, genitalia?

### Rule of Nine's



**NOTE:** Generally Patients Palm = 1% of Body Surface Area