MERCED COUNTY EMS AGENCY

# POLICY ADULT T4 BURNS

Effective Date : November 18, 2018
Last Review: October 3, 2011
Next Review: November 2020

**Authority:** Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

**DEFINITION:** Burns are injuries to tissues caused by energy, (heat, cold, electricity, radiation, or chemicals).

## BLS TREATMENT:

**SCENE SAFETY:** assure scene safety for all providers and patients; move patient to a safe environment; for electrical burns turn off power source and remove patient once it is safe.
**STOP THE BURNING PROCESS:** for **THERMAL and LIQUID CHEMICAL BURNS** use copious amount of tepid water; for **POWDER BASED CHEMICAL BURNS** brush powder off skin and then flush with copious amount of tepid water.
**EXPOSE:** remove clothing and jewelry quickly, but gently; **DO NOT** remove adherent material and/or clothing; cool effected area with tepid water.
**ASSESS:** assess patient for possible airway burns and any associated trauma.
**OXYGEN:** as appropriate, goal to maintain SPO2 at least 94%, assist ventilations as necessary.
**VITALS:** assess vitals
**BLOOD SUGAR CHECK:** test blood sugar treat as appropriate.
**CHECK TEMPERATURE:** assess temperature and keep patient warm to prevent hypothermia
**APPLY DRESSING:** Apply dry sterile dressing for any burn involving greater than 10% TBSA (Total Body Surface Area); moist sterile dressings are appropriate for smaller bums (less than10% TBSA).
**ELEVATE:** if possible elevate the effective body part to 30 degrees to prevent swelling.

## ALS TREATMENT:

**OXYGEN:** assess airway for possible burns, use appropriate advanced airway as needed, goal to maintain SPO2 of 94%, utilize nasal capnography for patients meeting **BURN TRIAGE CRITERIA.**
**MONITOR:** treat rhythm as appropriate, **12 LEAD** for **ELECTRICAL BURNS.**
**IV/IO ACCESS:** establish 2 large bore IV/IO access for patients meeting **BURN TRIAGE CRITERIA** and start fluid resuscitation per **Parkland Fluid Resuscitation Formula** (listed below); for all others TKO
**PAIN MANAGEMENT:** treat pain as appropriate to **M2 Pain Management Protocol**.
**ALBUTEROL:** 5 mg (2x2.5 mg doses) via nebulizer as needed; max 30 mg total dose.
**DOCUMENT THE SEVERITY OF THE BURN:** Estimate the severity of the burns using “Rule of Nines”, an individual palm equals ~1% of BSA and can be used to estimate scattered irregular burns.

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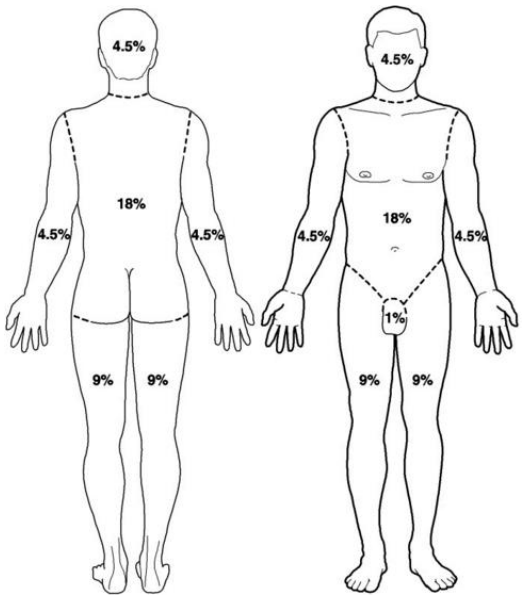
## RULE OF NINES;




## PARKLAND FLUID RESUSCITATION FORMULA:

Fluid for the first 24 hours = [4 x Weight (Kg)] x % TBSA; Give half of the total amount in the first 8 hours.
Pre-hospital Fluid Formula = [Weight (Kg) X TBSA (%)] divided by 4 = rate (ml/hr.)

## BURN TRIAGE CRITERIA:

1. A patient (adult or pediatric) whose primary injuries are burns may be transported directly to a Burn Center from the field. These injuries include:

A. Partial/full thickness (2nd or 3rd degree) burns involving greater than 15% TBSA without airway compromise

B. Patients with partial/full thickness (2nd or 3rd degree) burns greater than 10% TBSA without airway compromise with the following:

1) Greater than 60 years of age
2) Associated trauma meeting Trauma Triage Criteria (and if transport can be completed within 60 minutes)
3) Significant co-morbidities (e.g. COPD, major medical disorder, bleeding disorder or anticoagulant therapy, dialysis patients)

C. Partial/full thickness (2nd or 3rd degree) burns of face, perineum or circumferential burn to any body part

D. Significant electrical injuries with loss of consciousness, voltage in excess of 220, and/or open wounds

E. Electrical injuries resulting in a loss of distal pulses

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F. Significant inhalation injury with successful intubation
G. Chemical burns with wounds >5% TBSA 2.

**All burns with airway compromise, wheezing, stridor, carbonaceous sputum, nasal singeing or significant facial edema must have an evaluation for intubation either by air ambulance personnel or by the emergency physician at the closest appropriate receiving facility prior to transport to the Burn Center, if the ground ambulance is unable to intubate the patient after 1 attempt.**