



# CARE OF THERMAL BURNS $\geq 20\%$ TOTAL BODY SURFACE AREA

## 1 INITIAL ASSESSMENT

- Remove burned clothing, rings/watches and jewelry.
- Cervical spine precautions (if history of blast injury or other significant trauma)
- **Keep patient warm and dry** (blankets, turn up ambient room temperature, warmed IV fluids, head covering, Bair Hugger™) **Begin Temperature monitoring.**

### PITFALLS TO AVOID

- Hypothermia
- Inappropriate endotracheal intubation
- Over/under resuscitation with fluids

## 2 AIRWAY

- Initiate **100% FiO2** by **non-rebreathing face mask** with noninvasive EtCO2 monitor in place for all burns related to fire (can omit for scald and non-fire related thermal burns)
- **Manage airway if indicated** (see box to right)

### INDICATIONS FOR EMERGENT AIRWAY MANAGEMENT IN A BURN PATIENT

- Obtundation with absent airway reflexes (no cough/no gag)
- Hoarse voice or cry, stridor, drooling, difficulty speaking, respiratory distress, obvious swelling of the oropharynx.
- Consider for extensive ( $\geq 40\%$ ) TBSA burns

## 3 ESTIMATE TOTAL BODY SURFACE AREA

- Estimate total body surface area (TBSA) with partial and full thickness burns - can use a burn diagram.

### PITFALL TO AVOID

- Overestimation of TBSA
- Do not calculate 1st degree burns

**PALMAR METHOD**  
(Patient's entire hand)



## 4 FLUIDS

- Establish IV access (2 large bore IVs for burns  $\geq 20\%$  TBSA).
- Initiate **Ringer's lactate infusion** according to fluid administration recommendations (see box to right).
- **Do not bolus** (avoid "fluid creep")
- Insert **Foley catheter** for urine output monitoring

### RESUSCITATION GUIDELINES

3 ml x % burn x kg  
1/2 of total over first 8 hours  
**(NO BOLUS THERAPY)**

## 5 PAIN

Pain control with IV morphine 0.1 mg/kg/dose (max 10 mg/dose)  
**or** IV fentanyl 1-2 mcg/kg/dose (max 200 mcg/dose)

Avoid IM administration due to erratic absorption.

## 6 URINE OUTPUT GOAL (UOP)

Under age of 15 years (< 50 kg) : 1 ml/kg/hr

Over age of 15 years (> 50 kg) : 30 ml/hr

### URINE OUTPUT

#### Under age of 15 years (< 50 kg):

- UOP < 1 ml/kg/hr, increase fluids by 10%
- UOP > 1 ml/kg/hr, decrease fluids by 10%

#### Over age of 15 years (> 50 kg):

- UOP < 30 ml/hr, increase fluids by 10%
- UOP > 30 ml/hr, decrease fluids by 10%

## 7 DRESSINGS

- **Dress the burns** with dry, sterile gauze or cover patient with a dry sheet if the burns are extensive.

May apply antibiotic ointment

## 8 TRANSFER

**866-947-7840**