EMERGENCY TREATMENT OF BURN PATIENTS

1 IMMEDIATE EMERGENCY BURN CARE

Treat according to CPR protocol (ABC's)
Use airway and C-Spine precautions
Stop the burning process. Remove clothing and jewelry

2 EMERGENCY BURN MANAGEMENT

Airway Management

A. Administer 100% oxygen to all burn patients; be prepared to suction and support ventilation if necessary

B. Assess for potential inhalation injury using the following risk factors:

1. Burned in an enclosed space
2. Darkened or reddened oral and/or nasal mucosa
3. Burns to the face, lips, nares/singed eye brows, singed nasal hairs
4. Carbon or soot on teeth, tongue or throat
5. Raspy, hoarse voice or cough
6. Stridor or inability to clear secretions may indicate impending airway occlusion
7. Circumferential burns to neck

C. Elevate HOB 30-90 degrees to decrease facial or airway edema once C spine cleared

D. If inhalation injury is suspected, intubate immediately

E. Insert Two Large Bore IV Catheters (in non-burned area if possible)

3 TOTAL BODY SURFACE AREA

4 FLUID RESUSCITATION

In a Pre-Hostpital Setting, Set Fluid to:
< 5 years - 125cc/hr
6-13 years - 250cc/hr
> 13 years - 500cc/hr

In the Emergency Department:
2-4cc Ringers Lactate x Kg body weight x TBSA.
Give first half over first 8 hours and remainder over next 16 hours.

2cc for 14 years or older
3cc for children < 14 years
4cc for electrical burn injuries

If burn > 20% TBSA, place foley to accurately measure urine.

Titrate Ringers Lactate Based on Urine Output:
Adult or young adolescent: 30-50 cc/hr
High voltage electrical injury: 75-100 cc/hr
Children under 30 Kg: 1cc/Kg/hour

If there is no urine output, increase rate of fluids by 1/3. If urine output does not respond to increased fluid administration, promptly consult Burn Center surgeon.

For Burn Injuries > 30% TBSA, Consider High Dose Vitamin C Therapy. Contact the burn center at 855-863-9595.

5 INJURIES

Treat burn patient as trauma patient, check for:

1. **Head Injury** *(Burns do not cause altered consciousness; if patient has limited response to stimuli, look for another cause, e.g. head injury, anoxia, severe inhalation injury)*
2. **Fractures**
3. **Spinal Injuries**
4. **Soft Tissue Damage**
5. **Foreign Bodies** (especially in explosions)

Proceed with emergency treatment of any concurrent injuries and prevent further injuries.

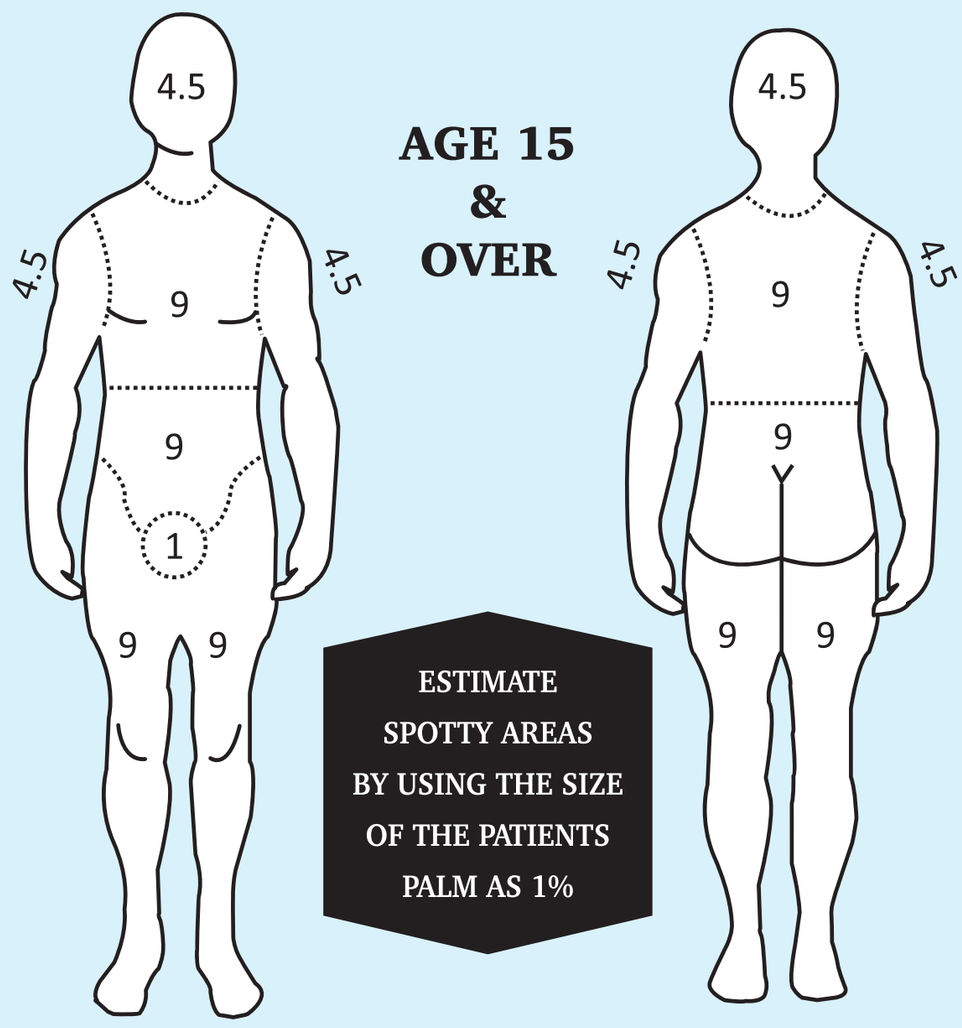
PATIENT REFERRALS AND BURN CARE QUESTIONS:

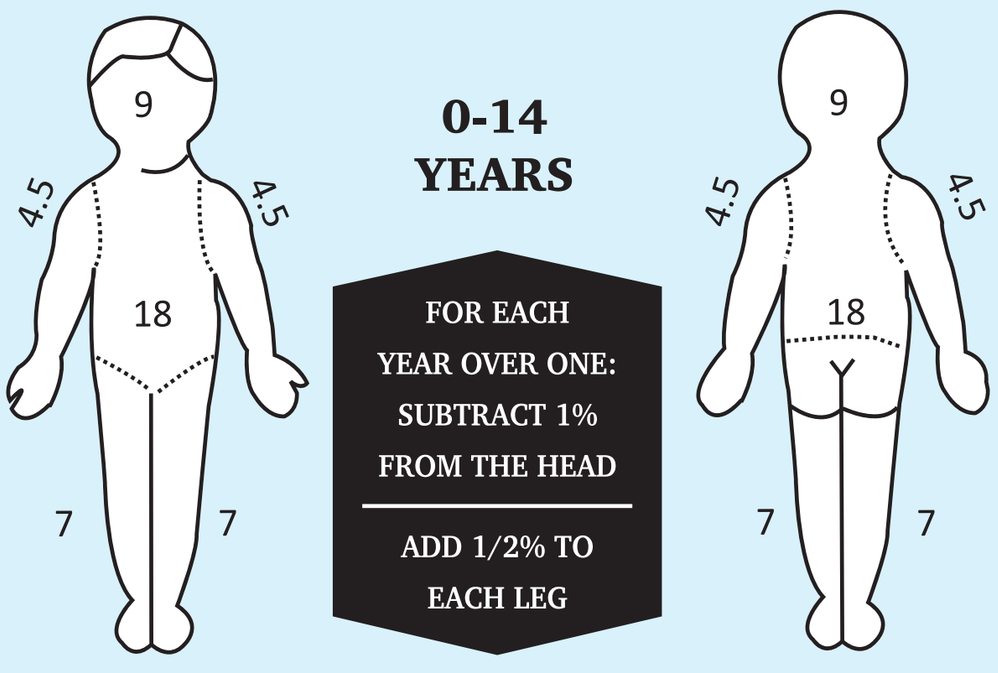
855.863.9595

flaburn.com

BURN AND RECONSTRUCTIVE CENTERS OF FLORIDA

BODY SURFACE AREA IN PERCENT





©Burn & Reconstructive Centers of Florida

6 ESTIMATE DEPTH OF BURN INJURY

Determine the probable depth of the burn injury using these guidelines:

1st Degree *(partial thickness)* Reddened, painful, warm to touch; no blisters or skin sloughing, e.g. sunburn

2nd Degree *(partial thickness)* Reddened, blistered, painful to touch, blanches to touch; when blister debrided, weeps fluid from wound. Regularly re-assess second degree burns to ensure the injury has not converted to third degree.

3rd Degree *(full thickness)* Dry/tight/leathery, brown/tan/waxy or pearly white, no blanching or capillary refill, relatively pain free, may initially appear to be second degree, no blisters, needs skin grafting to heal

4th Degree *(full thickness)* Charred appearance; burns that extend below the dermis and subcutaneous fat into the muscle bone or tendon

7 OBTAIN PATIENT HISTORY

Record the following information:
How the Victim was burned
Concomitant injuries
Allergies
Medical/Surgical history
Current medications

8 PAIN RELIEF MEASURES

Give all medications via IV route:

Morphine Sulfate
(if not contraindicated) in the following proportions:

Adults:
3-5 mg Q 10 minutes or prn

Children:
Titrate IV Morphine Sulfate by body weight (0.1mg/Kg/dose) or consult Burn Center

-Do NOT use ice or iced saline to comfort-

9 WOUND CARE MEASURES

Record the following information:

- **Remove burned clothing or foreign debris**
- **Wound debridement is not usually necessary at the referring facility: discuss with local Surgeon/Burn Center Surgeon need for escharotomies in circumferential burns**
- **Wrap burned areas with clean/sterile gauze or sheets**
- **Elevate HOB and burned extremities to decrease swelling**

-Do NOT apply ice, ointments or creams-

10 OTHER INTERVENTIONS

Labs; Rainbow, ABG, Carboxyhemoglobin

X-ray: CXR, and Areas of Suspected Trauma

Insert NG tube and decompress stomach if nausea and vomiting are present; if TBSA is greater than 20% or if patient is intubated

Keep patient NPO

Monitor patient's blood pressure, breath sounds, apical and peripheral pulses every 15 minutes

For urine that is black/brown/red or <30 cc/hr consult Burn Center

AMERICAN BURN ASSOCIATION CRITERIA FOR INJURIES REQUIRING REFERRAL TO A BURN CENTER

The following injuries require referral to a burn center after initial assessment and treatment at an emergency department:

1. Partial thickness burns >10% TBSA
2. Burns that involve the face, hands, feet, genitalia, perineum or major joints
3. Third degree burns in any age group
4. Electrical burns, including lightning injury
5. Chemical burns
6. Inhalation injury
7. Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery or affect mortality
8. Any patients with burns and concomitant trauma (such as fractures) in which the burn injury poses the greatest risk of morbidity or mortality
9. Burned children in hospitals without qualified personnel or equipment for the care of children
10. Burn injury in patients who require special social, emotional/long term rehabilitative intervention