Burn Transfer Guidelines

Transfer Indicated When There Is:

- Partial thickness and full-thickness burns of greater than 10% of the BSA in patients less than 10 years or over 50 years of age.
- Partial-thickness and full-thickness burns on greater than 20% of the BSA in other age groups.
- Partial-thickness and full-thickness burns involving the face, eyes, ears, hands, feet, genitalia, and perineum, and those that involve skin overlying major joints.

- Full-thickness burns on greater than 5% of the BSA in any age group.
- Chemical or electrical burns or inhalation injuries
- Patients with preexisting illnesses that could complicate treatment, prolong recovery, or affect mortality.
- Evidence of pulmonary injury or respiratory distress
- Brassy or sooty cough or singed nasal hairs
- Carbon Monoxide > 10%
- ***Patients who have sustained other trauma injuries in addition to burns or if fixed wing accommodations are not available at your facility, may be transferred to a level I or II trauma center for stabilization before being transferred to a burn center.***

Always consult with a Level I or II Trauma Center before transferring directly to a Burn Center

Electrical Burn Treatment

Electrical burns are frequently more serious than they appear on the body surface.

Significant volumes of tissue beneath the surface may be injured and result in acute renal failure and other complications.

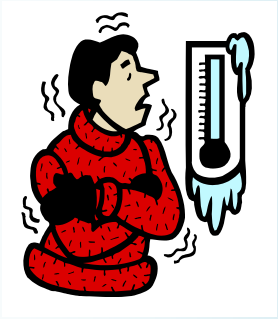
- ✓ Monitor blood gases and serum bicarbonate levels.
- ✓ Infuse IV fluids initially at a rate to maintain urinary output of 100ml/hr in adults.
- ✓ Observe the urine color for presence of myoglobin (dark, pink, or red)
  - ➢ If myoglobin present consider administering Sodium Bicarbonate or Mannitol to promote diuresis and excretion.
- ✓ Monitor cardiac rate and rhythm
- ✓ Monitor for signs and symptoms of compartment syndrome

Hypothermia Treatment

- ✓ Gently remove wet clothing.
- ✓ Obtain rectal temperature, BP, pulse, and respirations to identify severity of hypothermia
  - ***Mild Hypothermia*** *– Core temperature > 32 degrees C (90 degrees F)*
  - ***Severe Hypothermia*** *– Core temperature <32 degrees C (90 degrees F)*
- ✓ Keep patient immobile
- ✓ Administer **WARM** and **HUMIDIFIED** oxygen at 100%
- ✓ Cardiac Monitor
  - **ARRHYTHMIAS ARE COMMON** – observe carefully for rhythm changes.
- ✓ Prevent ventricular fibrillation while rewarming
  - **Avoid:**
    - *Rough handling*
    - *Endotracheal tubes*
    - *IV or IM drugs* ***(can rapidly reach toxic levels when patient is rewarmed)***
- ✓ IV Fluid Administration
  - *Lactated Ringers(preferred) or Normal Saline warmed (37.5 degrees C)*
    - *Give 200-300 ml rapidly then slow to give 1 liter in the first hour.*
    - *Maintain infusion rate to keep urine output at 1-2 ml/Kg/hr*
- ✓ Insert foley catheter for accurate urine output measurement

Guidelines for Cold Injuries

- ✓ Treat hypothermia first!!! ***(SEE NEXT PAGE)***
  - *As the core temperature approaches normal, rapid rewarming of the frostbite can be carried out.*
- ✓ Rapid rewarming by immersion in water 40 degrees C (104 degrees F) for 30-60 minutes.
  - *Thawing is complete when the distal tip of the extremity blanches.*
- ✓ Keep Warm and Dry
- ✓ Transfer to Level I or II Trauma Center



Helpful Hints

- ❖ **DO NOT** massage or manipulate the tissues
- ❖ Administer pain medications
- ❖ Give adequate hydration by appropriate means
  - ➢ Lactated Ringers or Normal Saline to correct fluid deficit
- ❖ *Pad between digits with fluffs or lamb's wool.*
- ✓ Tetanus Prophylaxis IM

Wound Care

- ✓ **REMOVE ALL** clothing, jewelry, and contact lenses.
- ✓ For chemical burns immediately remove all clothing, dust of powders, and begin irrigating with water for at least 30 minutes.
- ✓ **Dress burns loosely with clean dry sterile dressings**
  (DO NOT APPLY CREAMS OR TOPICAL SOLUTIONS PRIOR TO TRANSFER)
- ✓ **KEEP** patient **WARM**
- ✓ If time permits and does not delay transfer, cleanse wounds with saline and antiseptic such as chlorhexidine gluconate or mild soap.

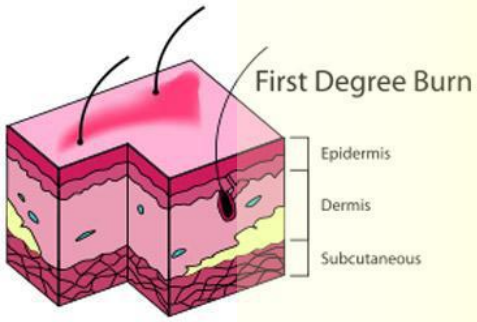
Other Things to Consider

- ☐ Insert foley catheter
- ☐ IV pain medications **(BE GENEROUS!!!)**
- ☐ Cardiac Monitor
- ☐ Tetanus Prophylaxis
- ☐ Nasogastric tube

Types of Burns

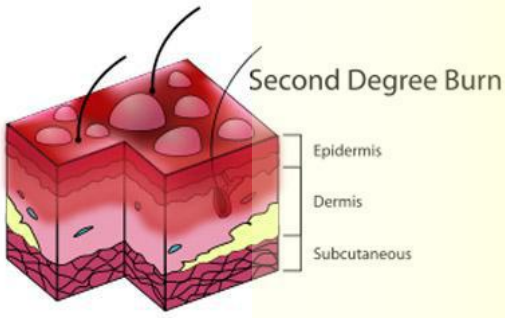
First Degree Burn

- Characterized by erythema, pain, and absence of blisters.



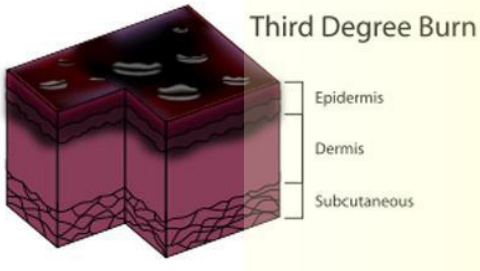
Second Degree Burn

- Characterized by a red or mottled appearance with swelling and blister formation. The surface may have a wet or weeping appearance and is painfully hypersensitive.



Third Degree Burn or Full Thickness Burn

- Usually appear dark and leathery. Skin may also appear translucent, mottled, or waxy white. The surface is painless, generally dry, and may appear red and does not blanch with pressure.



Burn Injury Management

Burns are No different than any other trauma injury…..ABC's are TOP Priority!!!!!

Airway

- ✓ Inspect face, nose, and mouth for soot, singed hair, or tissue injury ***(if present intubate)***
- ✓ Assess for hoarseness, dry cough, stridor, or respiratory distress ***(if present intubate)***
- ✓ Assess for circumferential injury to the neck ***(if present intubate)***

Breathing

- ✓ Administer 100% Oxygen at 15L via non-rebreather or ETT

Circulation

- ✓ Assess pulses and capillary refill to affected extremities
- ✓ Insert peripheral IV *(it is okay to insert into burned tissue if nothing else is available)*
  - May need to consider Intraosseous/Central Line
- ✓ Prevent hypothermia

TRANSFER ARRANGEMENTS SHOULD BE INITIATED!!!!

BURNS

The initial trauma resuscitation of burns can help to minimize the morbidity and mortality caused by the burn injury.

Priorities

- AIRWAY
- BREATHING
- CIRCULATION
- WOUND CARE
- TRANSFER