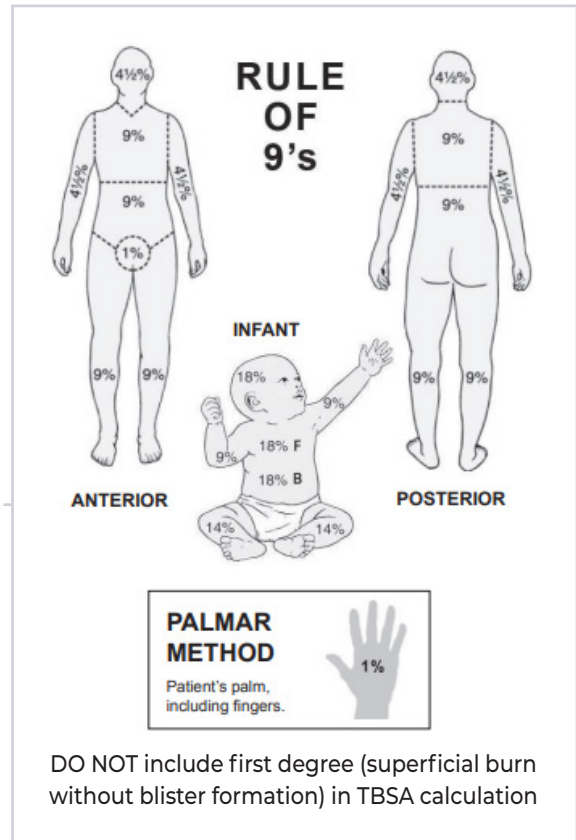
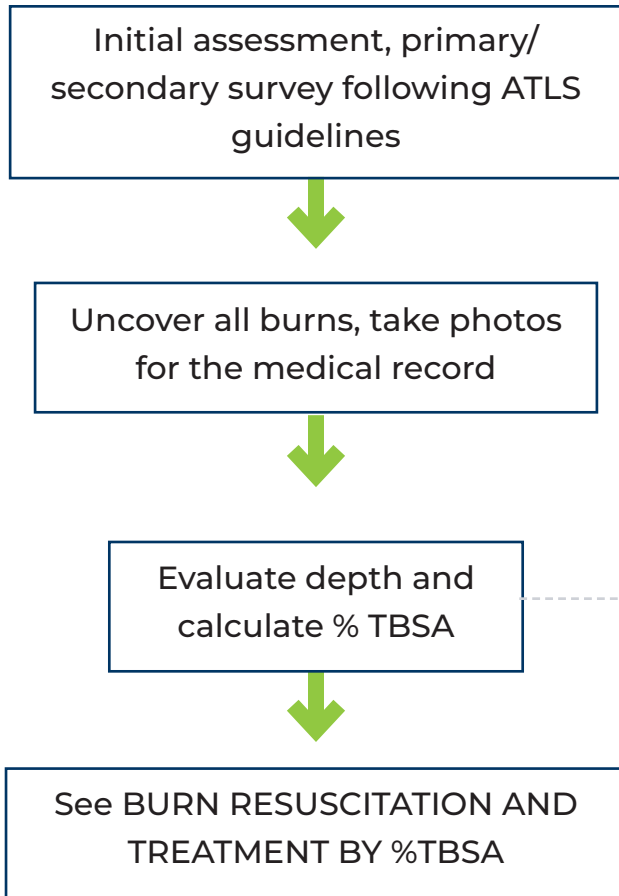


PEDIATRIC BURN ASSESSMENT



Classification of Burns by Depth

Depth	Appearance	Sensation
Superficial (epidermal)	Dry, red, blanches with pressure	Painful
Superficial partial thickness	Blisters, moist, red, weeping, blanches with pressure	Painful to temperature, air and touch
Deep partial-thickness	Blisters (easily unroofed), wet to waxy dry, variable color (patchy to cheesy white to red), blanching with pressure may be sluggish	Painful to pressure only
Full thickness	Waxy white to leathery gray to charred and black, dry and inelastic, no blanching with pressure	Painful to deep pressure only
Deeper injury (i.e. fourth degree)	Extends into fascia and/or muscle	Deep pressure

BURN RESUSCITATION & TREATMENT BY %TBSA

<10% TBSA

- Ad lib PO +/- IVF
- Pain control
- Consider foley catheter
- Consider tetanus prophylaxis

SUPERFICIAL OR <5% TBSA (PARTIAL THICKNESS)

- Consider Pediatric Surgery Consult
- Follow up with PCP (superficial) or Pediatric Surgery (partial thickness)
- Consider admission for NAT/Social evaluation if indicated

5-10% TBSA (≥PARTIAL THICKNESS)

- Pediatric Surgery Consult
- Consider admission for fluid management, pain control, or NAT/social evaluation if indicated

>10% TBSA

- Initiate Burn Center Referral
- Consider Pediatric Surgery Consult

10-20% TBSA

- Ad lib PO + IVF
- Pain control
- Consider foley catheter
- Tetanus prophylaxis

>20% TBSA

- IVF resuscitation with ABA Consensus Formula*
- Avoid Fluid Boluses
- Pain control
- Foley catheter
- Tetanus prophylaxis

*ABA Consensus Formula for burns >20% (use LR as fluid of choice)

Adults (or 40-80kg): $(TBSA \times kg) / 8 = \text{Rate (ml/hr)}$
 - For every 10kg above 80kg, increase the rate by 100ml/hr
 - Adjust fluid rate to goal UOP 0.5ml/kg/hr

Children (<40kg): $(TBSA \times kg) / 8 \times 1.5 = \text{Rate (ml/hr)}$
 - Adjust fluid rate to goal UOP 1ml/kg/hr
 - Add MIVF containing dextrose (D5LR or D5 1/2NS) in addition to the consensus formula

TBSA = % second and third degree burns
 This consensus formula is equivalent to initial ATLS burn resuscitation guidelines

ABA Burn Center Referral Criteria:

1. Partial thickness burns greater than 10% total body surface area (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 patient with burns and concomitant trauma (such as fractures) in which the burn injury poses the greatest risk of morbidity or mortality. In such cases, if the trauma poses the greater immediate risk, the patient may be initially stabilized in a trauma center before being transferred to a burn unit.
9. Burn injury in patients who will require special social, emotional, or rehabilitative intervention

Children's Hospital Colorado Burn Center:

OneCall 24/7 provider consult/transfer:
 (720) 777-3999

Burn Clinic: (720) 777-6604

American Burn Association, 2019

PEDIATRIC BURN WOUND CARE

Wound Care for Partial Thickness Burns

1. Pre-medicate for pain and anxiety, maintain a warm environment.
2. Cleanse the wound with dilute chlorhexidine (>1yrs old) or baby shampoo mixed with warm water.
3. Gently debride blisters >2cm using sterile gauze or scissors.
4. Place sticky side of Mepilex Ag to wound, cut to fit and apply as many as needed to cover wound with approx 1-2 inch overlap to non-burned skin.
5. Wrap with Kerlix or cover with gauze. Use an Ace bandage, a loose Coban wrap or a tubular net bandage (like Tubigrip) for circumferential support. Silk tape can be used to reinforce the adhesion of the Mepilex edges to the skin. Do not secure dressings in a constrictive manner that may interfere with perfusion.
6. **No need to apply bacitracin or triple antibiotic ointment when using Mepilex Ag. Silver sulfadiazine is not recommended.**
7. The Mepilex Ag dressing can stay in place up to 7 days. Only the outer dressing (gauze) needs to be changed daily (or more frequently prn large drainage). Keep the dressing dry. No baths/showers until the Mepilex dressing is discontinued and wounds are healed.



When Mepilex Ag Isn't Available

1. Pre-medicate, cleanse and debride as above.
2. Apply liberal amounts of triple antibiotic ointment to Vaseline gauze or Adaptic non-adhering dressing and apply to burn wounds. Silver sulfadiazine is not recommended.
3. Wrap with Kerlix and reinforce with an Ace bandage, a loose Coban wrap or a tubular net bandage (like Tubigrip) for circumferential support. Do not secure dressings in a constrictive manner that may interfere with perfusion.
4. This dressing can stay in place up to 4 days and should not be changed by the parents, only reinforced if there is leakage.



Special Burns

- **Face burns:** elevate the head 30-45 degrees, use only water or saline to clean facial burns, consider an open dressing with application of triple antibiotic ointment alone, apply frequently to maintain moisture. Silver sulfadiazine is not recommended.
- **Hand burns:** determine motor and nerve function, check perfusion, elevate to minimize edema, dress each finger separately, will require re-evaluation and a pediatric occupational therapy consult soon after ED visit to minimize contracture and decreased function.
- **Genitalia and perineum:** catheter placement is not required unless indicated for other reasons but may need to be considered if occlusion of the urethra is expected (from swelling), can be dressed with liberal triple antibiotic ointment and a diaper, apply frequently to maintain moisture, consider pediatric surgery evaluation and NAT work up as indicated.