

2023 Pediatric Burn Treatment Clinical Guideline

PED

Start

Does patient meet American Burn Association Referral Criteria?

- >10% TBSA
- Burns over any joint, face, perineum, hands, or feet
- 3rd degree injury of any size
- Pre-existing medical conditions
- Electrical / Chemical injuries
- Inhalation injury
- Burn injury along with trauma
- Circumferential injury

YES

Isolated thermal injury without trauma or impending airway obstruction to be transported directly to Burn Center

YES

Transfer to UUH Burn Center
Call: (801) 587-8980

Use the "UofU MedPic" app to share HIPAA compliant photos and contact information

While awaiting transfer assess and initiate fluid resuscitation (see below**)

Primary Survey
Additional Burn Considerations

Does patient have Airway involvement?

- Burns to face and neck
- Circumferential torso burn
- Burned while in a closed space
- Hoarse voice, Hypoxia, stridor
- Burns > 20% TBSA can cause edema formation, regardless of area

YES

- Consider intubation* and NG insertion
- Do not give steroids

NO

Initiate 100% FiO₂

NO

- All scene flights
- Referral for trauma patient who has not undergone a complete trauma evaluation

YES

Transfer to PED1

*Upper airway edema may make intubation difficult as symptoms progress
*Secure the ETT with ties passed around the head; do not use tape as it will not stick to burned tissue

Initiate Fluids/Trauma Labs/Foley Catheter

- Start Initial Fluid Rate if burns are > 20% TBSA**
- Remove all clothing and jewelry
- Maintain normothermia (mylar blanket, warm blanket, warm fluids)
- Elevate burned extremities and ensure adequate pulses with doppler if needed
- Pain control - providers should stay within their pediatric dose protocols.
- Check tetanus status
- Non-trauma burn patients will not receive a fluid bolus
- After secondary survey and %TBSA is determined, set to resuscitation fluid rate

****Initial Fluid Rate – LR**
(LR is fluid of choice, but NS can be used if LR is not available)
≤ 5 years : 125ml/hr.
6-12 years : 250ml/hr.
≥ 13 years: 500 ml/hr.

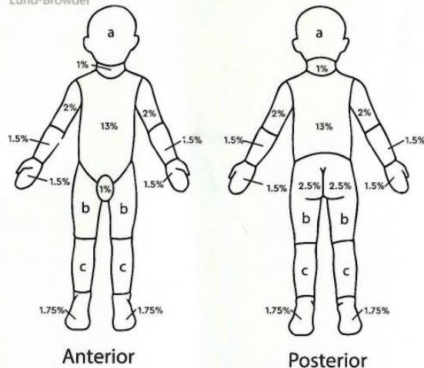
Resuscitation Fluid Rate – LR

Calculate Burn Fluid Resuscitation Rate for a 24- hour period, adjusting for urine output (U/O)

- **Adults & Children (≥13 yrs):** 2mL x kg x TBSA% divided by 16 (U/O 0.5 mL/kg/hr or 30-50 mL/hr)
- **Infants/Children (<12 years):** 3 mL x kg x TBSA % divided by 16
- plus D5LR at maintenance rate using 4/2/1 rule (U/O 0.5-1 mL/kg/hr or 30 mL if over 30 kg)
- **Electrical injury:** 4mL x kg x TBSA% divided by 16 (adults with pigment in urine: U/O 75-100 mL/hr)

Total Body Surface Area (% TBSA) Affected by Age

Lund-Browder



Body Part	0 yr	1 yr	5 yr	10 yr	15 yr
a = 1/2 of head	9.5%	8.5%	6.5%	5.5%	4.5%
b = 1/2 of 1 thigh	2.75%	3.25%	4.0%	4.5%	4.5%
c = 1/2 of 1 lower leg	2.5%	2.5%	2.75%	3.0%	3.25%

First degree burns are not included in the % TBSA

Patient palmer surface = 1% (Includes Fingers)

This algorithm does not replace clinical judgment and is not intended to be prescriptive for all patients.

NO

- Clean burn with soap and water
- Apply appropriate topical, non-stick layer and gauze dressing (See attached material for dressing information)

Does patient meet discharge criteria?

- Normal mental status
- Resolving or minor symptoms
- Tolerating oral intake
- Dependable social support
- No suspicion of abuse or neglect
- Available caregiver to perform wound care

YES

Consider Discharge

- Use the "UofU MedPic" app to share HIPAA compliant photos and contact information
- Teach caregiver how to do wound care
- Provide enough supplies until clinic appt
- Provide prescription for pain medication

Burn OP Clinic (801) 581-3050
Hours- M-F 8am-5pm

2021 Pediatric Burn Treatment Clinical Guideline (ED/Hospital Supply List)

Dressing Supplies

Description	Notes
Mylar Blanket (optional)	Regular blankets may be used provided they don't remain on the patient when wet
L.R. IV fluid (optimal choice) NS may be used if not available	See initial and resuscitation rate
D5LR IV fluid	For patients under 30 KG MIV
ETT ties	Should be used instead of tape

Description	Notes
Ointments (Bacitracin or Silver sulfadiazine)	Consider silver products if available (mepilex)
Non-stick dressing	Non-stick dressing in various sizes
Gauze Roll	2, 3, and 4 inch
Kerlix Sponges (4 in x 4 in)	Wrap each finger separately to facilitate range of motion
Netting (#1, 3, 5, 8, and 11)	50 yds per box
Betasept 4%, mild non-perfumed soap, or baby shampoo	Don't store in patient room due to cross contamination risk.
Large Basin	Single use item
Scissors	
Tape (1 in x 10 yds)	Can be used to secure dressing but netting is an optimal choice

2021 Pediatric Burn Treatment Clinical Guideline (Burn Dressing and Teaching Videos for Patients and Families)

SSD dressing:

<https://www.facebook.com/UofUBurnCenter/videos/665390664268144/>

Baci/Non-adherent dressing:

<https://www.facebook.com/UofUBurnCenter/videos/198661721392769/>

Mepilex dressing:

<https://www.facebook.com/UofUBurnCenter/videos/2849921651796060/>

Blister Removal:

<https://www.facebook.com/UofUBurnCenter/videos/967820496984347/>