33. Burns Resuscitation Pathway (Assessment)

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.

SAMPLE HISTORY

Signs and **S**ymptoms
Allergies
Medication
Past Medical History/**P**regnancy
Last meal
Events preceding presentation

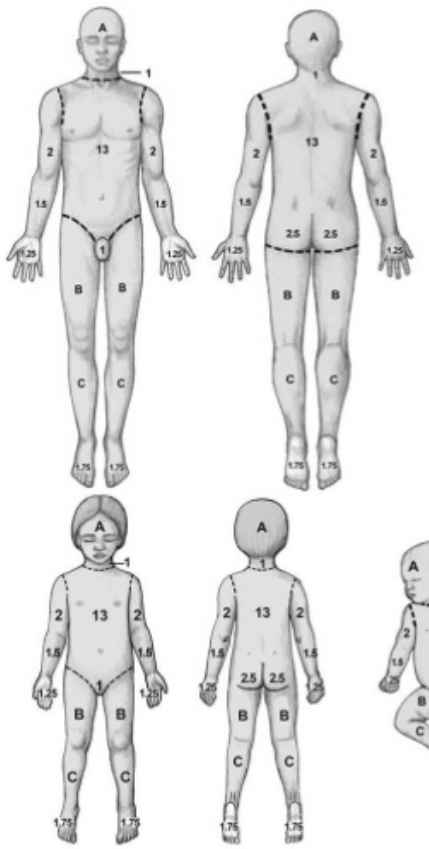
Primary Survey (C-ABCDE)

- **C**-Spine – If suspected trauma, Cleared Clinically (**see 31. C-Spine Clearance Algorithm**)? Perform **Manual In-Line Stabilization (MILS)** then apply **Head Blocks** or **Blanket Rolls** taped to the patient's head and trolley. **DO NOT APPLY A C-COLLAR**
- **A**irway – Open? Maintainable? Intubate? Indications for intubation include presence of pharyngeal burns, air hunger, stridor, carbonaceous sputum and hoarseness, unconscious patients, hypoxic patients with severe smoke inhalation, or patients with flame or flash burns involving the face and neck.
- **B**reathing – Rate? SPO_2? Air entry bilaterally?
- **C**irculation – Active Bleeding Control? BP? CPR? Pulse? Signs of Shock?
- **D**isability – GCS? Pupils? **RBS?**
- **E**xpose patient

1st Degree Burns	• Epidermis only • Commonly caused by UV light or very short flash or flame exposure • Skin is red, dry & hypersensitive • No treatment except analgesia • Leaves no scarring on healing
2nd Degree Burns	**Superficial;** • Epidermis + **Upper ⅓** of Dermis • Commonly caused by scald (spill or splash) • **Red, moist, weeping,** cob blisters that **blanche** with pressure • Painful - due to nerve exposure, & heals from 7-14days • Leaves no scarring on healing but there is potential pigmentary changes
	Deep; • Epidermis + **Upper ⅔** of Dermis • Commonly caused by scald, flame, chemicals, oil & grease • **Cheesy white, wet or waxy dry; Do not blanche** with pressure • Healing takes > 21days • Severe scarring & risk of contractures
3rd Degree Burns (Full Thickness Burns)	• Full Epidermis + Dermis are destroyed leaving no cells to heal • Commonly caused by scald, steam, flame, chemicals, oil, grease & high voltage electricity • Grey to charred & black, **insensate**, contracted, pale, leathery tissue • Severe scarring & high risk of contractures
4th Degree Burns	• Muscle involvement
5th Degree Burns	• Bone involvement - Especially in epileptics who convulse during burning

Total Body Surface Area (TBSA) Burns Estimation

Lund and Browder Charts for area of body burnt



Burnt area	%
Head	
Neck	
Trunk (front)	
Trunk (back	
Arm (right)	
Arm (left)	
Hand (right)	
Hand (left)	
Buttock (right)	
Buttock (left)	
Genitals	
Leg (right)	
Leg (left)	
Feet (right)	
Feet (left)	
Total burn area	

Age (years)	Under 1	2–4	5–9	10–14	15	Adult
A — ½ of head	9½	8½	6½	5½	4½	3½
B — ½ of one thigh	2¼	3¼	4	4½	4½	4¾
C — ½ of one leg	2½	2½	2¾	3	3¾	3

Do not include first degree burns in the calculation of % TBSA. The surface area of a **patient's palm (including fingers)** is roughly **1% of TBSA**. Palmar surface can be used to estimate relatively small burns (**< 15%** of total surface area) or very large burns (**> 85%**, when unburnt skin is counted). For **medium-sized burns**, it is **inaccurate**.