**Burn Assessment and Management**

These guidelines are given to assist emergency personnel in the initial management of a burn patient prior to transfer to the burn center.

### Conduct Initial Assessment

**Primary Survey:** Use ABCDEF to check the patient's status:
- **A** Airway/C spine immobilization
- **B** Breathing and ventilation
- **C** Circulation
- **D** Disability, neurologic deficit
- **E** Expose (remove all clothing and jewelry) Environmental control (keep warm)
- **F** Fluid

**Secondary Survey:** Use head-to-toe approach
- Remove all clothing and jewelry
- Quickly assess percentage of skin involved and depth of burn
- Cover patient with clean, dry sheet
- Keep warm: Hypothermia occurs rapidly
- Avoid use of ice or ointments
- If material is stuck to the skin, do not attempt to remove
- For circumferential burns, elevate burn extremity above the level of the heart
- May consider clear plastic wrap to reduce heat loss

### Calculate the Percent of Total Burn Surface Area

(Exclude Erythema)

- Use the “Rule of Nines” to estimate burn size for adult and pediatric patients.
- Use Lund & Browder chart below to estimate percentages by age.
- Include only partial (second degree) and full thickness (third degree) burns.

**“Rule of 9s” Burn-Size Assessment**

*Include partial and full thickness burns only*

- Adult
- Pediatirc

### Begin Fluid Resuscitation

If burn size is greater than 10% pediatric or greater than 15% adult, initiate fluid resuscitation.

Patients with > 30% TBSA burns require 2 large bore IVs (may be inserted through burned skin if necessary).

Pre-hospital fluid management

<table>
<thead>
<tr>
<th>Age</th>
<th>Fluid Rate (ml/hour)</th>
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<tbody>
<tr>
<td>&lt; 5 yrs.</td>
<td>125 ml</td>
</tr>
<tr>
<td>6-13 yrs.</td>
<td>250 ml</td>
</tr>
<tr>
<td>&gt; 14 yrs.</td>
<td>500 ml</td>
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</tbody>
</table>

**Caution:** Start IV fluid at 250 ml/hr for patients with pre-existing cardiac disease, pulmonary disease or age > 70.

Avoid fluid challenge unless patient is hypotensive due to trauma.
The Gene and Barbara Burnett Burn Center is the only adult burn center in the greater Kansas City area that is accredited by the American Burn Association and the American College of Surgeons. The multidisciplinary burn team provides long-term continuity of care for adult and pediatric patients whose injuries require specialized treatment and rehabilitation. We treat all types of burns and wounds, including:

- Chemical, electrical, flame and scald burns
- Large areas of skin loss from accidents or disease processes (e.g., toxic epidermal necrolysis, severe dermatitis or necrotizing fasciitis), which can result in extensive chronic wounds that are difficult to heal.

The Burnett Burn Center offers state-of-the-art equipment, an on-site operating room, hydrotherapy, and complete rehab and support services for adults and children. Services include:

- Plastic surgery and reconstruction
- Occupational and physical therapy/hand rehabilitation
- School re-entry program
- Family and burn survivor support
- Outpatient Burn and Wound Care Clinic
- Burn prevention and awareness resources

The American Burn Association identifies the following burn injuries and conditions as criteria for referral to a certified burn center.

- > 10% TBSA partial thickness burns
- Any full-thickness burns in any age
- Burns to face, feet, hands, genitalia, perineum, or over major joints
- Electrical burns, including lightning
- Chemical burns
- Inhalation injury
- Patients with pre-existing medical disorders
- Patients with concomitant trauma
- Pediatric burns in hospitals without qualified personnel or equipment to care for children
- Patients who require special social, emotional or rehabilitative intervention

Excerpted from American Burn Association 2011.