Burns

**History**
- Type of exposure (heat, gas or chemical)
- Inhalation injury
- Time of injury
- Other trauma
- Past medical history
- Medications

**Signs and Symptoms**
- Burns, pain, or swelling
- Dizziness
- Loss of consciousness
- Hypotension/shock
- Airway compromise or distress could be presented as hoarseness or wheezing

**Differential**
- Superficial – red and painful (do not include in TBSA)
- Partial thickness – blistering
- Full thickness – painless with charred or leathery skin
- Chemical injury
- Thermal injury
- Radiation injury
- Blast injury

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**Assess burn injury severity**

**Minor**
- < 20% TBSA partial or full thickness burns
- No inhalation injury
- GCS > 13

- Remove rings, bracelets, and constricting items
- Apply clean dressing to burn area
- Consider IV
- Cardiac monitor

- **Trauma Triage TG if indicated**
- **Pain Control TG if indicated**

- Transport to facility of choice. **Consider transporting to Burn Center for burns to the face, hands, perineum, or feet and circumferential burns**

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**Major**
- ≥ 20% TBSA partial or full thickness burns, burns with suspected inhalation injury or high voltage electrical burns

- Remove rings, bracelets, and constricting items
- Apply clean dressing to burn area
- Maintain airway
- Establish IV/IO **Consider, one 20g or larger IV in each AC**
- Cardiac monitor
- EtCO₂ monitoring

- **Trauma Triage TG if indicated**
- **Pain Control TG if indicated**

- Transport to appropriate facility. **Burns with trauma to Trauma Center Burns only to Burn Center**

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**Approved Burn Receiving Centers**
- St. Francis – San Francisco
- Valley Med. Center – San Jose
- UC Davis – Sacramento

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**Effective Jan. 2019**
Pearls

- Airway burns may lead to rapid compromise of the airway and can be identified by soot around the nares or mouth or visible burns or edematous mucosa in the mouth.
- Early intubation is required when the patient experiences significant inhalation injuries. If the patient requires advanced airway management that cannot be quickly achieved in the field, transport to the nearest facility for stabilization prior to transfer to the Burn Center. Do not wait for a helicopter if airway patency is a critical concern.
- Contact Burn Center prior to transport to confirm bed availability.
- For major burns, do not apply wet dressings, liquids or gels to burns unless it is to remove whatever caused the burn (i.e. dry chemical agent, etc.). Cooling large burns may lead to hypothermia.
- Burn patients are often trauma patients. If burns are evident in the presence of trauma, follow trauma triage guidelines and transport to trauma center if activation criteria is met. Do not transport a trauma patient with burns to a burn center.
- Circumferential burns to extremities are dangerous due to potential vascular compromise secondary to soft tissue swelling.
- Never administer IM pain medication into a burned area.

Rule of Nines

- Seldom will you find a complete isolated body part that is injured as described in the Rule of Nines. More likely, it will be portions of one area, portions of another, and an approximation will be needed.
- For the purpose of determining the extent of serious injury, differentiate the area with minimal (superficial) burn from those of partial or full thickness burns.
- When calculating TBSA of burns, include only partial and full thickness burns; do not include superficial burns in the calculation.

Burn Assessment Terminology

<table>
<thead>
<tr>
<th>Approved Terminology</th>
<th>Former Terminology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superficial</td>
<td>1st degree</td>
</tr>
<tr>
<td>Partial thickness</td>
<td>2nd degree</td>
</tr>
<tr>
<td>Full thickness</td>
<td>3rd degree</td>
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</tbody>
</table>

Burn assessment should be documented and reported using only approved terminology.