Chemical and Electrical Burn

**History**
- Type of exposure (heat, gas, chemical)
- Inhalation injury
- Time of Injury
- Past medical history / Medications
- Other trauma
- Loss of Consciousness
- Tetanus/Immunization status

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

**Differential**
- Superficial (1st Degree) red - painful (Don’t include in TBSA)
- Partial Thickness (2nd Degree) blistering
- Full Thickness (3rd Degree) painless/charred or leathery skin
- Thermal injury
- Chemical – Electrical injury
- Radiation injury
- Blast injury

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### Assure Chemical Source is NOT Hazardous to Responders.
### Assure Electrical Source is NO longer in contact with patient before touching patient.

**Assess Burn / Concomitant Injury Severity**

- **Minor Burn**
  - < 5% TBSA 2nd/3rd Degree Burn
  - No inhalation injury, Not Intubated, Normotensive
  - GCS 14 or Greater
  - Irrigate Involved Eye(s) with Normal Saline for 15 minutes May repeat as needed

- **Serious Burn**
  - 5-15% TBSA 2nd/3rd Degree Burn
  - Suspected inhalation injury or requiring intubation for airway stabilization
  - Hypotension or GCS 13 or Less
  - (When reasonably accessible, transport to a Burn Center)
  - Cardiac Monitor *if indicated*
  - Eye Involvement
  - Flush Contact Area with Normal Saline for 15 minutes
  - Identify Contact Points
  - Exit to Age Appropriate Thermal Burn Protocol

- **Critical Burn**
  - >15% TBSA 2nd/3rd Degree Burn
  - Burns with Multiple Trauma
  - Burns with definitive airway compromise
  - (When reasonably accessible, transport to a Burn Center)
  - Age Appropriate Cardiac Arrest / Pulseless Arrest / Age Appropriate Arrhythmia Protocol(s) *as indicated*

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**Pearls**
- **Recommended Exam: Mental Status, HEENT, Neck, Heart, Lungs, Abdomen, Extremities, Back, and Neuro**
- **Green, Yellow and Red in burn severity do not apply to the Start / JumpStart Triage System.**
- **Refer to Rule of Nines: Remember the extent of the obvious external burn from an electrical source, does not always reflect more extensive internal damage not seen.**
- **Chemical Burns:**
  - Refer to Decontamination Procedure.
  - Normal Saline or Sterile Water is preferred, however if not available, do not delay irrigation using tap water. Other water sources may be used based on availability. Flush the area as soon as possible with the cleanest readily available water or saline solution using copious amounts of fluids.
- **Electrical Burns:**
  - DO NOT contact patient until you are certain the source of the electrical shock is disconnected.
  - Attempt to locate contact points (generally there will be two or more.) A point where the patient contacted the source and a point(s) where the patient is grounded. Sites will generally be full thickness. **Do not refer to as entry and exit sites or wounds.**
  - Cardiac Monitor: Anticipate ventricular or atrial irregularity including VT, VF, atrial fibrillation and / or heart blocks.
  - Attempt to identify then nature of the electrical source (AC / DC,) the amount of voltage and the amperage the patient may have been exposed to during the electrical shock.