

- i. Anxiety
 - j. Fixed/dilated pupils possible (autonomic dysfunction)
4. Skin
 - a. Ferning or fern-like superficial skin burn ("Lichtenberg figures")
 - b. Vascular instability may result in cool, mottled extremities
 - c. Frequent first and/or second-degree burns
 - d. Third degree burns less common
 5. Patient may be in full cardiopulmonary arrest or have only respiratory arrest, as injury is a result of DC current
 6. May have stroke-like findings as a result of neurologic insult
 7. May have secondary traumatic injury as a result of overpressurization, blast or missile injury
 8. Fixed/dilated pupils may be a sign of neurologic insult, rather than a sign of death/impending death. Should not be used as a solitary, independent sign of death for the purpose of discontinuing resuscitation in this patient population

Treatment and Interventions

1. Assure patent airway — if in respiratory arrest only, manage airway as appropriate
2. If in cardiopulmonary arrest, treat per [Cardiac Arrest Guideline](#)
3. Consider IV initiation — avoid initiation through burned skin
4. Monitor EKG. Be alert for potential arrhythmias. Consider 12-lead EKG, when available
5. Consider early pain management for burns or associated traumatic injury [See [Pain Management Guideline](#)]

Patient Safety Considerations

1. Recognize that repeat strike is a risk. Patient and rescuer safety is paramount
2. Victims do not carry or discharge a current, so the patient is safe to touch and treat

Notes/Educational Pearls

Key Considerations

1. Lightning strike cardiopulmonary arrest patients have a high rate of successful resuscitation, if initiated early, in contrast to general cardiac arrest statistics
2. There may be multiple victims
3. If multiple victims, cardiac arrest patients whose injury was witnessed or thought to be recent should be treated first and aggressively (reverse from traditional triage practices)
 - a. Patients suffering cardiac arrest from lightning strike initially suffer a combined cardiac and respiratory arrest
 - b. Return of spontaneous circulation may precede resolution of respiratory arrest
 - c. Patients may be successfully resuscitated if provided proper cardiac and respiratory support, highlighting the value of "reverse triage"
4. It may not be immediately apparent that the patient is a lightning strike victim
5. Injury pattern and secondary physical exam findings may be key in identifying patient as a victim of lightning strike
6. Lightning strike is a result of very high voltage, very short duration DC current exposure