

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8028.15
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Signature on File

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EMS Medical Director

EMS Administrator

**Purpose:**

- A. To establish the treatment standard for prehospital personnel treating patients suffering from environmental emergencies.

**Authority:**

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

**Protocol:**

**Frostbite:**

<b>BLS</b>
<ol style="list-style-type: none"> <li>1. Supplemental O<sub>2</sub> as necessary to maintain SpO<sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O<sub>2</sub> possible.</li> <li>2. Airway adjuncts as needed.</li> <li>3. Remove wet/frozen clothing and place the patient in a warm environment.</li> <li>4. Assess the area of frostbite; check circulation, sensation, and movement of extremities               <ul style="list-style-type: none"> <li>• Do not rub-protect from further trauma, contamination, or moisture</li> </ul> </li> <li>5. Transport in the position of comfort.</li> </ol>

**Hypothermia:**

<b>BLS</b>
<ol style="list-style-type: none"> <li>1. Supplemental O<sub>2</sub> as necessary to maintain SpO<sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O<sub>2</sub> possible.</li> <li>2. Airway adjuncts as needed.</li> <li>3. Assess for trauma</li> <li>4. Place in a warm environment. Remove wet clothes and re-warm with warm clothes and blankets.</li> <li>5. Handle patients with care. The sudden jarring of patients may precipitate cardiac arrest.</li> </ol> <p>*If in cardiac arrest, perform CPR until the patient can be warmed in the hospital. *</p>
<b>ALS</b>
<ol style="list-style-type: none"> <li>1. Advanced airway adjuncts as needed.</li> <li>2. Cardiac Monitoring</li> <li>3. Consider vascular access.</li> <li>4. Monitor and reassess.</li> <li>5. If in cardiac arrest, refer to PD# 8031 – Medical Cardiac Arrest.</li> <li>6. Transport</li> </ol>

### Hyperthermia:

BLS	
1.	Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O <sub>2</sub> possible.
2.	Airway adjuncts as needed.
3.	Place the patient in a cool area and remove clothing as appropriate.
4.	Transport
*If sweating is absent, proceed with cooling patients as rapidly as possible (cool packs on neck, in the axilla and inguinal areas; fanning and misting, if possible, undress patient, cover with a sheet, and wet thoroughly.)*	
ALS	
1.	Advanced airway adjuncts as needed.
2.	Consider vascular access.
3.	Cardiac Monitoring
4.	Transport

### Near Drowning:

BLS	
1.	Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O <sub>2</sub> possible.
2.	Airway adjuncts as needed.
3.	Consider Spinal Motion Restriction (SMR) per PD# 8044
2.	Transport
ALS	
1.	*Follow appropriate protocol*
2.	*Body temperature criteria shall not be used as criteria for declaring death.*

### Snake Bite:

BLS	
1.	Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O <sub>2</sub> possible.
2.	Airway adjuncts as needed.
3.	Assess the site of the wound for swelling and redness from stings/bites.
4.	Immobilize affected extremity at or slightly below the level of the heart.
5.	Keep the patient at rest.
6.	Transport
7.	Pre-alert receiving hospital of the possible need for antivenom if moderate to severe venomous snake bite is noted.
<b>NOTE:</b> If the patient is experiencing signs and symptoms of anaphylaxis, treat per PD# 8001 – Allergic Reaction/Anaphylaxis.	

<u>Degree of Envenomation</u>	<u>Presentation</u>
None	Punctures or abrasions; some pain or tenderness at the bite.
Mild	Pain, tenderness, and edema at the bite; perioral paresthesias may be present.
Moderate	Pain, tenderness, erythema, edema beyond the area adjacent to the bite; often, systemic manifestations and mild coagulopathy.
Severe	Intense pain and swelling of entire extremity, often with severe systemic signs and symptoms; coagulopathy
Life-threatening	Marked abnormal signs and symptoms; severe coagulopathy
<b>*DO NOT APPLY ICE OR A TOURNIQUET TO THE SITE *</b>	
<b>*DO NOT BRING THE DEAD SNAKE TO THE HOSPITAL; TAKE A PICTURE IF POSSIBLE</b>	
<b>ALS</b>	
1. *Assess for anaphylaxis and treat per PD# 8001*	

**Stings / Bites:**

<b>BLS</b>	
1.	Supplemental O <sub>2</sub> as necessary to maintain SpO <sub>2</sub> ≥ 94%. Use the lowest concentration and flow rate of O <sub>2</sub> possible.
2.	Airway adjuncts as needed.
3.	Assess skin for swelling, redness, and rash. If extremity, check distal circulation, sensation, and movement
4.	Keep affected extremities at the level of the heart and immobilize.
5.	Transport
<b>*Apply ice for insect bites, not snake bites.*</b>	
<b>NOTE:</b> If the patient is experiencing signs and symptoms of anaphylaxis, treat per PD# 8001 – Allergic Reaction/Anaphylaxis.	
<b>ALS</b>	
1. *Assess for anaphylaxis and treat per PD# 8001 – Allergic Reaction/Anaphylaxis*	

**Cross Reference:** PD# 8001 – Allergic Reaction/Anaphylaxis  
 PD# 8031 – Medical Cardiac Arrest  
 PD# 8038 – Shock  
 PD# 8044 – Spinal Motion Restriction (SMR)