

# SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 07/01/02

Protocol: P-023

## SNAKEBITE

### SUBJECTIVE FINDINGS

- Type of snake, if known and location found.
- Appearance of snake; shape of pupil, presence of stripes or rattle.
- Time of bite.
- Prior first aid by patient or friends.
- Symptoms: local pain and swelling, peculiar taste in mouth, hypotension, coma, bleeding.

### OBJECTIVE FINDINGS

- One or more puncture wounds, or horseshoe set of teeth marks.
- For Pit-Vipers (*Crotalids*): **There is a spectrum of envenomation from non-envenomated to a serious envenomation:**

### NON-ENVENOMATED

- No discoloration around puncture marks
- Little or no pain after a few minutes

NON-ENVENOMATED	
• No discoloration around puncture marks	• Little or no pain after a few minutes
BLS Treatment	
<ul style="list-style-type: none"><li>• <b>Safety first</b>; do not attempt to capture snake unless experienced in doing so</li><li>• Remove rings or other jewelry which might constrict circulation later</li><li>• Routine Medical Care.</li><li>• Transport all suspected envenomations for medical evaluation.</li></ul>	

SERIOUS ENVENOMATION	
<ul style="list-style-type: none"><li>• Dark discoloration around punctures within 5 minutes.</li><li>• Severe pain within short time.</li><li>• Oozing of hemolyzed blood from punctures, possible formation of fluid blebs on skin.</li><li>• Definite “metallic” taste.</li><li>• Marked edema formation.</li><li>• Abnormal motor movements.</li><li>• Hypotension.</li><li>• Marked tachycardia.</li><li>• AMS.</li></ul>	
BLS Treatment	ALS Treatment
<ul style="list-style-type: none"><li>• <b>Safety first</b>; do not attempt to capture snake unless experienced in doing so</li><li>• Remove rings or other jewelry which might constrict circulation later</li><li>• RMC</li><li>• Apply constrictor band (not a tourniquet)</li></ul>	<ul style="list-style-type: none"><li>• IV of NS</li><li>• Fluid challenge</li><li>• <b>Morphine sulfate</b> 4 mg slow IVP as needed for discomfort, may repeat as indicated if SBP &gt; 100mmHg, to total dose of 20 mg.</li></ul>

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| <ul style="list-style-type: none"><li>• Document distal pulse</li><li>• Immobilize bitten part with splint, etc.</li></ul> |  |
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## **DOCUMENTATION**

Wound appearance documented.

If discolored, edematous or oozing blood IV of NS started.

Identification of snake documented (either identified or inability to identify).

## **PRECAUTIONS AND COMMENTS**

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- Do not incise envenomations.
  - If snake is dead, bring it in for positive identification (avoid fangs, they are capable of envenomation even when dead). If alive and wild, do not try to capture it.
  - All so-called “pet” snakes must be positively identified.
  - Ice applied directly to skin surfaces can cause serious tissue damage and should not be used. A cool wet cloth can afford some pain relief but does nothing to stop the venom.
  - Exotic poisonous snakes such as those in zoos have different signs and symptoms than those of the pit vipers. Zoos and legal exotic snake collectors are required to have a starter supply of antivenom on hand for each type snake--bring antivenom with patient to hospital.
  - Bites from coral snakes, *Elapids* related to cobras, usually do not have any early symptoms; thus all bites are considered envenomated.