

Bayfield-Ashland Counties EMS TOXINS / ENVIRONMENTAL Environmental Exposure	EE-1 BITES and ENVENOMATION
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SIGNS/SYMPTOMS: Patient reports bite or sting.

Patient may present with toxin specific reactions which may include:

- a. Site pain
- b. Swelling
- c. Muscle pain
- d. Erythema
- e. Discoloration
- f. Bleeding
- g. Nausea
- h. Abdominal pain
- i. Hypotension
- j. Tachycardia
- k. Tachypnea
- l. Muscle incoordination
- m. Confusion
- n. Anaphylaxis or allergic reactions.

ASSESSMENT and TREATMENT

ALL LEVELS

1. Assess ABCDs and, if indicated, expose sites and then cover to assure retention of body heat.
2. Obtain and monitor vital signs (pulse, respirations and blood pressure) including temperature.
3. Obtain pertinent patient history.
4. Assess for signs and symptoms of local and systematic impact of the suspected toxin. [patient physical exam with special consideration to area of envenomation or bite.]

EMR-O; EMT-R

5. Check blood glucose level.
6. Monitor SpO₂.
7. Consider transport to hospital that has access to antivenom, if feasible.

EMT-O

8. Apply an ECG cardiac monitor.
9. Obtain ETCO₂.

AEMT-R

10. Consider an IV normal saline fluid bolus 20mL/kg up to 2 liters.

AEMT-O

11. Consider an IV lactated Ringer's 20mL/kg up to 2 liters.

INT-R

12. Examine rhythm strip from cardiac monitor for arrhythmias.
13. Obtain and/or monitor ETCO₂ for respiratory decompensation.
14. Consider vasopressors after adequate fluid resuscitation for the hypotensive patient. See [Shock guideline \[M-13\]](#).
15. Provide analgesia per the [Pain Management guideline \[M-11\]](#).

Do NOT:

- Do NOT apply tourniquets, tight bandage or constricting bands above or below the site of the envenomation.
- Do NOT perform incision and/or suction wound to remove toxin.

- Do NOT apply cold packs or immerse the effected extremity in ice water.
- Do NOT try to capture the offending marine or terrestrial animal or insect.

PATIENT SAFETY CONSIDERATIONS:

- If the offending organism has been killed, be aware that many dead insect, marine or fanged animals can continue to bite or sting with venom and should be safely placed in a hard sided and closed container for future identification.
- Patient may still have an imbedded stinger, tooth, nematocyst, or barb with may continue to deliver toxin if left imbedded. Consider safe removal of stinger using the “scrape technique” without squeezing the toxin delivery apparatus.