

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

5D TOXIC EXPOSURES

PATIENT CARE GOALS

- Ensure adequate airway, breathing, and circulation, and monitor closely for changes in level of consciousness and/or vital signs.
- Identify the type of toxic substance(s) and risk to the patient (and others).
- Provide specific treatments and antidotes, if available.

EMT

1. Assure scene safety to avoid self-exposure to toxic materials.
2. Don appropriate level of PPE.¹
3. If the substance poses a risk to the responders or if the patient requires decontamination to reduce exposure, follow the HAZMAT safety and incident management procedures detailed in the **Emergency Response Guidebook**.
4. Remove any contaminated clothing and decontaminate the patient by brushing off or rinsing the substance with copious amounts of water, if safe to do so.
5. Assess the patient and provide initial care, including oxygen and vascular access, per **1B General Assessment and Care**.
6. Measure blood glucose level if level of consciousness is altered, and treat hypoglycemia per **3G Hypoglycemia**.

PARAMEDIC

ADULT	PEDIATRIC (less than 60 kg)
<p><u>For organophosphate/carbamate poisoning:</u> (e.g., pesticides, insecticides)</p> <ol style="list-style-type: none"> 1. Administer atropine 1-5 mg IV/IO/IM every 5 minutes until drying of secretions, pupil dilatation, or stabilization of cardiac dysrhythmias occurs.² 2. Treat seizure activity as per 3F Seizures. <p><u>For cyanide poisoning:</u> (e.g., smoke inhalation)</p> <ol style="list-style-type: none"> 1. Consider hydroxocobalamin (Cyanokit) if available. 	<p><u>For organophosphate/carbamate poisoning:</u> (e.g., pesticides, insecticides)</p> <ol style="list-style-type: none"> 1. Administer atropine 0.05 mg/kg IV/IO/IM every 5 minutes (minimum dose 0.1 mg) until drying of secretions, pupil dilatation, or stabilization of cardiac dysrhythmias occurs.² 2. Treat seizure activity as per 3F Seizures. <p><u>For cyanide poisoning:</u> (e.g., smoke inhalation)</p> <ol style="list-style-type: none"> 1. Consider hydroxocobalamin (Cyanokit) if available.

HEALTHEAST MEDICAL TRANSPORTATION
MEDICAL OPERATIONS MANUAL

ADULT	PEDIATRIC (less than 60 kg)
<p><u>For suspected Carbon Monoxide (CO) poisoning:</u>³ (e.g., CO alarm, smoke inhalation)</p> <ol style="list-style-type: none"> 1. Assess the patient’s CO levels using an SpCO measuring finger probe. 2. Follow treatment algorithm.⁴ 	<p><u>For suspected Carbon Monoxide (CO) poisoning:</u>³ (e.g., CO alarm, smoke inhalation)</p> <ol style="list-style-type: none"> 1. Assess the patient’s CO levels using an SpCO measuring finger probe. 2. Follow treatment algorithm.⁴

DOCUMENTATION KEY POINTS

- Identification of toxic substance(s) involved, estimated amount(s), and time and route of exposure.
- Any delays in patient care due to safety risk, decontamination, etc.
- Initial and ongoing assessments, monitoring, interventions, patient response, and complications (if any) encountered.

NOTES

¹ Don the appropriate level of PPE for which you are specifically trained. (e.g. Hazmat Technician, Level 1 Operator, etc.)

² For organophosphate poisoning, the dosage of **atropine** needed will likely exceed the amount available. Consider calling for a supervisor or another ambulance so additional doses may be obtained prior to transport. Also consider early notification of the receiving hospital to allow them enough time to obtain a sufficient amount of **atropine** prior to patient arrival.

³ **Carbon Monoxide Toxicity:** Consider in the following conditions;

- Patients that have had confirmed or suspected exposure to Carbon monoxide (CO).
- Patients with vague or Flu like symptoms.
- Headache.
- Patients with lowered L.O.C. or unresponsiveness.
- Patients involved in motor vehicle or machinery accidents.
- Patients exposed to chemicals (especially paint and paint thinners).
- All patients can benefit from SpCO monitoring due to the nature of CO.

⁴ **Treatment for Carbon Monoxide: (See Treatment/Transport Algorithm)**

- COHb of 0-3% in non-smoker and up to 10% in smokers is considered a normal level in patients without symptoms.
- Patient should be administered high flow oxygen (15L NRB).
- Patients should be monitored for life threatening symptoms caused by CO poisoning and treated accordingly.
- Pregnant women should be transported to the ED for evaluation of the fetus in cases of suspected exposure to CO, even with low or no COHb level is found in the mother. This is because CO has a higher affinity for fetal Hb and can be present in the fetus at toxic levels.
- Hyperbaric Oxygen Treatment (HBOT): should be considered if Patient has a documented CO exposure: significant signs and symptoms, (particularly confusion), Loss of Consciousness, ischemia in heart or brain, alkalosis or acidosis, or CO level of >25%. Pregnant women with mild

HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

to severe symptoms with supportive history of CO poisoning even with low or no COHb level. Patient should be transported to Hennepin County Medical Center (HCMC) for HBOT.

