

# POISONING & TOXIC EXPOSURES

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- ❑ Routine Medical Assessment and Interventions
- ❑ Obtain SpO<sub>2</sub>, ETCO<sub>2</sub>, and/or CO readings via non-invasive devices as indicated for the situation and when equipment is available.
- ❑ Oxygen as indicated, if SpO<sub>2</sub> is below 94% - However, be aware of potential erroneous SpO<sub>2</sub> readings in some poisoning/toxic situations (e.g., CO exposure). When in doubt as to SpO<sub>2</sub>, provide oxygen.
- ❑ If the patient is unconscious, place in the recovery position and follow routine patient assessment and care guideline.
- ❑ If airway is compromised with no gag reflex, consider use of an oropharyngeal advanced airway, if approved.
- ❑ Consider contacting poison control and/or medical control or if Haz-Mat related exposure – consider contacting regional Haz-Mat team for assistance.
- ❑ If skin irritation due to chemical exposure – flush with water for 30 minutes
  - DO NOT irrigate with water if exposure was to Lye.

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- ❑ If patient is unconscious, check blood glucose. If < 60 follow the hypoglycemia Guideline.
  - ❑ If toxic exposure to the eyes – may carefully remove contact lenses if applicable and able to do so safely. See Eye Injuries guideline.
- ORAL INGESTIONS (UNLESS CAUSTIC/HYDROCARBONS):**
- ❑ If < 2 hours ago, alert and able to swallow then, may consider **Activated Charcoal 50 g PO. Only after OLMC consultation or ordered by Poison Control.**
- ORGANOPHOSPHATE EXPOSURE:**
- ❑ Where available, may administer Atropine & Pralidoxime chloride via **Duo-Dote Auto-Injector**. May repeat as needed until symptoms resolve.

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- ❑ Initiate vascular access as needed and indicated
  - ❑ Consider **Normal Saline TKO** or if the patient is hypotensive or tachycardic consider administration of **250 to 500mL fluid bolus.**
  - ❑ If the patient has an altered level of consciousness and a narcotic overdose is suspected follow Overdose guideline.
  - ❑ May administer bronchodilator if patient is suffering from bronchospasm associated with exposure – See Respiratory Distress guideline.
- HALOGENATED HYDROCARBON SOLVENTS**
- ❑ Use caution with administration of Beta adrenergic medications (**Albuterol**) as these medications may either precipitate or exacerbate cardiac dysrhythmias.

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- ❑ Obtain ECG as indicated and initiate care for dysrhythmias per applicable Cardiac guideline(s).
- HALOGENATED HYDROCARBON SOLVENTS**
- ❑ Consider longer interval between administrations of **Epinephrine** in cardiac arrest situations.

# POISONING & TOXIC EXPOSURES CONT.

PARAMEDIC

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- ❑ If patient is unconscious consider establishment of an advanced airway
- ❑ Consider **Tetracaine** 1-2 drops/eye for ocular exposures – See Eye Injury guideline

### **ORGANOPHOSPHATE EXPOSURE:**

- ❑ May administer **Atropine 2 MG IV or IM every 3-5 min** until lung sounds are clear to auscultation OR administer **Duo-Dote** auto injector as above.

### **CARBON MONOXIDE AND/OR CYANIDE EXPOSURE:**

- ❑ If source of CO exposure (combustion) is likely to contain Hydrogen Cyanide or the patient is suspected of having been exposed to cyanide, and is presenting with unstable signs/symptoms may consider administration of **Cyano-Kit (Hydroxocobalamin) 5 g IV/IO to max of 10 g**
  - Consider contacting mutual-aid for additional doses early in multiple patient situations and/or significant exposures.

### **HYDROGEN FLOURIDE EXPOSURES:**

- ❑ **Skin exposure** - Mix **2 ml of 10% Calcium Gluconate** per 1 ounce KY jelly and coat and massage affected area.
- ❑ **Eye exposure** – Flush Eyes with **10 ml of 10% Calcium Gluconate** in 1000 ml NS and irrigate.
  - Consider use of Morgan Lens to facilitate irrigation.
- ❑ **Inhalation exposure** – Mix **1 ml of 10% Calcium Gluconate** with 3 ml of NS in nebulizer and administer.
- ❑ **Ingestion exposure** – Administer **2 to 4 oz of MAALOX PO**

### Clinical Care Pearls

- ❑ Perform scene size-up and ensure crew safety. In a hazardous materials incident, stage up wind of the incident, and do not attempt to treat any patients who have not been decontaminated. Be especially suspicious of scenes in which many people or animals appear to be affected.
- ❑ Beware of the potential for the pt. to vomit spontaneously. Following any form of cyanide ingestion, emesis may off-gas toxic hydrogen cyanide, placing rescuers and health care workers at risk.
- ❑ Beware of the potential for seizures or altered level of consciousness due to toxic exposures.
- ❑ Beware of potential for cardiovascular collapse and respiratory compromise due to toxic exposures.
- ❑ Carbon monoxide clinical manifestations

SpCO %	Clinical Manifestations
0-4%	None - Normal
5-9%	Minor Headache
10-19%	Headache, Shortness of Breath
20-29%	Headache, Nausea, Dizziness, Fatigue
30-39%	Severe Headache, Vomiting, Vertigo, ALOC
40-49%	Confusion, Syncope, Tachycardia
50-59%	Seizures, Shock, Apnea, Coma
60% -up	Coma, Death