

# Methemoglobinemia Guideline

## Inclusion

Suspected methemoglobinemia

## Exclusions

See exclusions for methylene blue, below

## Pre-Decon

BVM ventilation, if needed

## Decon

**General**

- Decon is necessary if liquid or solid methemoglobin-forming compounds are on clothes or skin.
- The specific decon required should be determined by the Incident Commander (IC) or their designee.
- Medical guidance for decon is as follows:

General Decon Guideline

Eye Decon Guideline

## Post-Decon

ALS

**Supportive Care**

- Vital signs, primary & secondary surveys, supplemental O<sub>2</sub>, insert IV/IO, apply cardiac monitor
- If in severe respiratory distress or apneic, then support ventilation with BVM or airway management protocol.

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**Antidote**

- Methylene blue for severe\* methemoglobinemia:
  - 1 mg/kg, IV/IO, over 5 minutes,
  - **Unless the patient has one of the following contraindications:**
    - **known G6PD deficiency, or**
    - **is taking serotonergic drugs, such as SSRI or SNRI antidepressants, fentanyl, etc., that can interact with methylene blue to cause serotonin syndrome**

- If needed, contact medical direction or poison control center for assistance.

**Special Note:**

- **Causes of methemoglobinemia:** Amyl nitrite, isobutyl nitrite, sodium nitrite, topical anesthetics, aniline, nitrobenzene, etc.
- **Mild or moderate methemoglobinemia:** Cyanosis without altered mental status, chest pain, or dyspnea. ©2025
- **Severe\* methemoglobinemia:** Cyanosis with altered mental status, chest pain, or dyspnea.