

## HAZARDOUS MATERIALS EMERGENCIES

### Hydrofluoric Acid H2

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#### HYDROFLUORIC ACID

1. Ensure provider safety - skin contact with hydrofluoric acid **MUST** be avoided.
2. Ensure a patent airway
  - **OXYGEN** – high flow. Be prepared to support ventilations as needed
3. Continue decontamination initiated on scene
4. Cardiac monitor
5. **IV or IO ACCESS TKO**
6. Transport
7. Consider:
  - **CALCIUM CHLORIDE** 500mg (5 ml of 10% solution) IV for tetany or cardiac arrest
  - For pain relief in the absence of hypotension (systolic BP less than 100), significant other trauma, altered level of consciousness, **MORPHINE SULFATE** 2-20 mg IV, titrated in 2 - 4 mg increments to pain relief. If IV access not available, **MORPHINE SULFATE** 5-10 mg IM
8. **Contact Base Hospital is any questions or if additional therapy is required**

Concentrated hydrofluoric acid burns are especially serious and warrant base hospital contact. The emphasis should be on continuous irrigation and rapid transport.

Background - This substance causes minimal burning sensation on initial contact, but is highly toxic and may penetrate tissue to cause ulceration and bone destruction. Pain may ultimately be very severe.

Signs and Symptoms - *INHALATION* exposure causes eye, nose, and throat irritation, cough, tracheobronchitis, and delayed onset of pulmonary edema. *INGESTION* will cause severe corrosive burns. *SYSTEMIC* absorption causes hyperkalemia, hypocalcemia, hypomagnesia, and can result in tetany and/or cardiac arrest. *TOPICAL* exposure may or may not exhibit redness to the skin.

Decontamination PRIOR to EMS management - Remove contaminated clothing and flush affected areas for 1 to 2 minutes.

Secondary contamination - No risk after initial decontamination procedures completed.