

FIRST AID FOR HYDROFLUORIC ACID EXPOSURE

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For any type of exposure:

Yell for HELP. Tell someone to call 9-911 for emergency medical assistance for hydrofluoric acid exposure. *Always* get professional medical treatment for HF exposure. Read the notes below for a general explanation of first aid for HF exposure.

For skin exposure:

1. After yelling for help, immediately begin washing contaminated area, being careful not to spread exposure to other body parts. Remove any contaminated clothing. Be sure to scrub finger/toe nails if they are contaminated. Any assistants should wear double gloves and eye protection and take care to avoid exposure.
2. Ask someone to get a tube of calcium gluconate gel from the first aid kit in the corridor. (See notes below.) Continue washing for 5 minutes.
3. Wearing double gloves, apply calcium gluconate gel to the affected area. Gently massage into skin. Keep applying gel and massaging into skin until a physician takes over treatment. Remember to get under finger/toe nails if they were contaminated.

For eye exposure:

1. After yelling for help, hold eyes open and rinse in eyewash until emergency responders arrive but for at least 15 minutes. Do not use calcium gluconate gel in eyes.
2. Place ice packs on eyes while traveling to emergency room.

For inhalation:

After yelling for help, leave the laboratory and get someone to accompany you to fresh air while you wait for emergency responders.

Notes:

Hydrofluoric acid burns may not be immediately painful or visible; symptoms may be delayed 8 hours or longer. The fluoride ion readily penetrates the skin causing destruction of deep tissue layers and bone and it is important to get medical attention if exposed.

Calcium gluconate is not approved by the U.S. Food and Drug Administration, but it is typically recommended in Material Safety Data Sheets (MSDS) as a first aid measure for hydrofluoric acid exposure. It provides a substitute calcium source so that bone tissue does not act as the calcium supply. A solution of 0.2% iced aqueous Hyamine 1622 or 0.13% iced aqueous Zephiran Chloride are other options. If you use HF, be sure to read the MSDS first.

Tubes of 2.5% calcium gluconate topical gel are located in first aid kits on all four floors and is also available for sale in ChemStores.