
Information and recommendations for patients

- Patients exposed only to hydrogen chloride gas (boiling point -85°C , -121°F , respectively) do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with hydrochloric acid can cause secondary contamination of rescue and medical personnel by direct contact or through off-gassing hydrogen chloride.
 - Hydrogen chloride gas is rapidly corrosive when it comes in contact with moist tissue such as the eyes, skin, and upper respiratory tract causing eye irritation, coughing, chest pain and dyspnea. Swelling of the throat and accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration, cough) may occur.
 - There is no antidote to be administered to counteract the effects of hydrogen chloride. Treatment consists of supportive measures.
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Substance information

Hydrogen chloride (HCl), CAS 7647-01-0

Synonyms: anhydrous hydrochloric acid, hydrochloric acid gas

At room temperature hydrogen chloride is a colorless gas with a sharp or pungent odor. Under pressure or at temperatures below -85°C (-121°F), it is a clear liquid. On exposure to air dense white vapor is formed, due to condensation with atmospheric moisture. In contact with moisture, it forms hydrochloric acid. The vapor formed is corrosive.

Hydrogen chloride is available as anhydrous gas or aqueous solution (hydrochloric acid). Aqueous solutions are usually colorless but may be yellow due to trace impurities. Hydrogen chloride is widely used in chemical processes and production.

What immediate health effects can result from exposure to hydrogen chloride?

Most exposures to hydrogen chloride occur from breathing the gas. Exposure to small amounts usually causes eye, nose, and throat irritation with tearing and lacrimation of the eyes, sore throat and coughing. Extended exposure can cause severe breathing difficulty, which may lead to chemical pneumonia and death.

Are any future health effects likely to occur?

A single small exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. Some persons who have had serious exposures have developed permanent breathing difficulty and tend to develop lung infections easily.

Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

- () Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
 - coughing or wheezing
 - difficulty breathing or shortness of breath
 - increased pain or a discharge from exposed skin or eyes
 - chest pain or tightness
- () No follow-up appointment is necessary unless you develop any of the symptoms listed above.
- () Call for an appointment with Dr. _____ in the practice of _____
When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____
and were advised to be seen again in _____ days.
- () Return to the Emergency Department/ _____ Clinic on _____
(date) at _____ am/pm for a follow-up examination.
- () Do not perform vigorous physical activities for 1 to 2 days.
- () You may resume everyday activities including driving and operating machinery.
- () Do not return to work for _____ days.
- () You may return to work on a limited basis. See instructions below.
- () Avoid exposure to cigarette smoke for 72 hours; smoke may worsen the condition of your lungs.
- () Avoid drinking alcoholic beverages; alcohol may worsen your clinical conditions.
- () Avoid taking the following medications: _____

- () You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

- () Other instructions: _____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

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