

Hydrogen Chloride Patient Information Sheet

This handout provides information and follow-up instructions for persons who have been exposed to hydrogen chloride gas or hydrochloric acid solution.

What are hydrogen chloride and hydrochloric acid?

Hydrogen chloride is a colorless to slightly yellow gas with a sharp, irritating odor. It forms a dense white vapor when it comes in contact with air. When hydrogen chloride dissolves in water, it forms hydrochloric acid also known as muriatic acid. Both hydrogen chloride and hydrochloric acid are corrosive and may cause burns on contact. Hydrogen chloride is not flammable.

What immediate health effects can be caused by exposure to these chemicals?

Hydrogen chloride gas can irritate the lungs, causing a cough and shortness of breath. Breathing high levels of the gas or vapor can lead to a build-up of fluid in the lungs, which may cause death. Because hydrochloric acid is corrosive, it can cause eye damage, even blindness, if splashed in the eyes. Skin contact can cause severe burns. Ingestion of concentrated hydrochloric acid can cause severe injury to the mouth, throat, esophagus and stomach. Generally, the more serious the exposure, the more severe the symptoms.

Can hydrogen chloride or hydrochloric acid overexposure be treated?

There is no antidote for poisoning due to these substances, but their effects can be treated and most exposed persons get well. People who have had serious exposures may need to be hospitalized.

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. Patients who breath a large amount of hydrogen chloride may develop permanent lung injury. If hydrochloric acid was swallowed, a patient may permanently have trouble swallowing.

What tests can be done if a person has been exposed to hydrogen chloride?

Specific tests for the presence of hydrogen chloride in blood or urine generally are not useful to the doctor. If a severe exposure has occurred, blood and urine analyses and other tests may show whether the lungs or stomach has been injured. Testing is not needed in every case.

Where can more information about hydrogen chloride and hydrochloric acid be found?

More information about hydrogen chloride and hydrochloric acid can be obtained from your regional poison control center; your state, county, or local health department; the Agency for Toxic Substances and Disease Registry (ATSDR); your doctor; or a clinic in your area that specializes in occupational and environmental health. If the exposure happened at work, you may wish to discuss it with your employer, the Occupational Safety and Health Administration (OSHA), or the National Institute for Occupational Safety and Health (NIOSH). Ask the person who gave you this form for help in locating these telephone numbers.

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, shortness of breath, or chest pain
 - stomach pain or vomiting
 - increased pain or a discharge from exposed eyes
 - increased redness or pain or a pus-like discharge in the area of a skin burn

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 for at least 24 hours; alcohol may worsen injury to your stomach or have other effects.

Avoid taking the following medications: _____

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

Other instructions: _____

• Provide the Emergency Department with the name and the number of your primary care physician so that the ED can send him or her a record of your emergency department visit.

• You or your physician can get more information on the chemical by contacting: _____ or _____, or by checking out the following Internet Web sites: _____; _____.

Signature of patient _____ Date _____

Signature of physician _____ Date _____