
Information and recommendations for patients

- Patients exposed only to hydrogen sulfide gas do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with liquid hydrogen sulfide (boiling point –60°C, –76°F, respectively) can secondarily contaminate rescue and medical personnel by direct contact or through off-gassing hydrogen sulfide.
 - Hydrogen sulfide gas is irritating when it comes in contacts with moist tissue such as the eyes, skin, and upper respiratory tract and causes headache, nausea, vertigo, dizziness, weakness, hypotension, and disorientation. Swelling of the throat and signs of accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration, cough) and unconsciousness and apnea may occur. Rapid onset of unconsciousness, “knock-down”, of severely exposed individuals is characteristic.
 - In case of suspected hydrogen sulfide poisoning immediate ventilation and oxygenation is crucial.
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Substance information

Hydrogen sulfide (H₂S), CAS 7783-06-4

Synonyms: dihydrogen monosulfide, sewer gas

Hydrogen sulfide is, at room temperature, a colorless, flammable gas with a rotten-egg odor. Under pressure or at temperatures below –60°C (–76°F), it is a clear, colorless liquid. It is moderately water-soluble.

Hydrogen sulfide is used or encountered in farming (usually as agricultural disinfectant), brewing, tanning, glue making, rubber vulcanizing, metal recovery processes, mineral oil and gas exploration and processing, in rayon or artificial silk manufacture, lithography and photoengraving, fur-dressing and felt-making plants, fertilizer cookers, beet sugar factories, analytical chemistry, and dye production.

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

Most exposures to hydrogen sulfide occur from breathing the gas.

Exposure to small amounts usually cause headache, nausea, dizziness, and respiratory irritation. Severe exposure may cause coma and death. Rapid onset of unconsciousness “knockdown”, of severely exposed individuals is characteristic. Upon reawakening, these individuals may be agitated and confused for a while.

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 people who have had serious inhalation exposures have developed permanent breathing difficulty and tended 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: _____

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|------------------------|-------|------|-------|
| Signature of patient | _____ | Date | _____ |
| Signature of physician | _____ | Date | _____ |

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