
Information and recommendations for patients

- Patients whose clothing or skin is contaminated with solid sodium hydroxide or its solutions can cause secondary contamination of rescue and medical personnel by direct contact.
 - Sodium hydroxide and its solutions, mists, and aerosols are rapidly corrosive when they come in contact with the eyes, skin, and upper respiratory tract causing irritation, burns, coughing, chest pain and dyspnea. Swelling of the throat and accumulation of fluid in the lungs (shortness of breath, cyanosis, expectoration) may occur.
 - Ingestion of sodium hydroxide can cause severe corrosive injury to the lips, mouth, throat, esophagus, and stomach.
 - Immediate decontamination (first removal of solid sodium hydroxide, thereafter extensive flushing of contaminated eyes, skin, and hair) is crucial.
 - There is no antidote to be administered to counteract the effects of sodium hydroxide. Treatment consists of supportive measures.
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Substance information

Sodium hydroxide (NaOH), CAS 1310-73-2

Synonyms: caustic soda, sodium hydrate, lye.

At room temperature sodium hydroxide is a white crystalline, odorless, deliquescent solid, which absorbs moisture from the air. When sodium hydroxide is dissolved in water, often a mist is formed. Sodium hydroxide itself is nonflammable, but in contact with moisture it may ignite combustibles. Toxic fumes may be formed upon heating. The solid, solutions, mists, and aerosols are all corrosive. It is water-soluble. Sodium hydroxide is widely used in the manufacture of soaps, paper, rayon, cotton, dyestuffs, and petroleum products. Other uses include etching and cleaning of metals, electroplating, ion-exchange resin regeneration, and oxide coating.

What immediate health effects can result from exposure to sodium hydroxide?

Exposure to small amounts of mists or aerosols 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. Deep burns of the skin and mucous membranes may be caused by contact with solid sodium hydroxide or its solutions. Severe eye burns with clouding of the surface and ensuing blindness may occur from exposure to sodium hydroxide.

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 condition.
- () 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 _____

References

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