



CASE DEFINITION

Caustic or Corrosive Agents

Clinical description

Ingestion of caustic or corrosive agents (e.g., phosphoric acid or sulfuric acid) can cause direct injury to tissue upon exposure, which might lead to the following signs and symptoms: oral pain, ulcerations, drooling, dysphagia, vomiting, and abdominal pain. Dermal and ocular exposure might result in local irritation or burn injury. Inhalation of corrosive gases might result in upper and lower respiratory irritation, leading to stridor, dyspnea, wheezing, and pulmonary edema (1-4).

Laboratory criteria for diagnosis

- *Biologic*: No biologic marker for exposure to a caustic or corrosive agent is available.
- *Environmental*: Detection of caustic or corrosive agents in environmental samples, as determined by NIOSH or FDA.

Case classification

- *Suspected*: A case in which a potentially exposed person is being evaluated by health-care workers or public health officials for poisoning by a particular chemical agent, but no specific credible threat exists.
- *Probable*: A clinically compatible case in which a high index of suspicion (credible threat or patient history regarding location and time) exists for a caustic exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- *Confirmed*: A clinically compatible case in which laboratory tests on environmental samples are confirmatory.

The case can be confirmed if laboratory testing was not performed because either a predominant amount of clinical and nonspecific laboratory evidence of a particular chemical was present or a 100% certainty of the etiology of the agent is known.

Additional resources

1. Rao RB, Hoffman RS. Caustics and batteries. In: Goldfrank LR, Flomenbaum NE, Lewin NA, Howland MA, Hoffman RS, Nelson LS, eds. Goldfrank's toxicologic emergencies. 7th ed. New York, NY: McGraw-Hill; 2002:1323-45.

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2. Alford BR, Harris HH. Chemical burns of the mouth, pharynx and esophagus. *Ann Otol Rhinol Laryngol* 1959;68:122-8.
3. Cello JP, Fogel RP, Boland CR. Liquid caustic ingestion: spectrum of injury. *Arch Intern Med* 1980;140:501-4.
4. Crain EF, Gershel JC, Mezey AP. Caustic ingestions: symptoms as predictors of esophageal injury. *Am J Dis Child* 1984;138:863-5.

This document is based on CDC's best current information. It may be updated as new information becomes available. For more information, visit www.bt.cdc.gov/chemical, or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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