

# CHEMICAL EMERGENCIES

## Strychnine

### Clinical description

The major identifying clinical features of strychnine poisoning through ingestion are severe, painful spasms of the neck, back, and limbs and convulsions with an intact sensorium. Symptoms might progress to coma. Tachycardia and hypertension are also common effects (1-4).

### Laboratory criteria for diagnosis

• *Biologic*: A case in which strychnine in urine or serum is detected, as determined by a commercial laboratory.

-OR-

• Environmental: Detection of strychnine 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 strychnine exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- *Confirmed*: A clinically compatible case in which laboratory tests of biologic and environmental samples have confirmed exposure

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. Flomenbaum NE. Rodenticides. In: Goldfrank LR, Flomenbaum ME, Lewin NE, Howland MA, Hoffman RS, Nelson LS, eds. Goldfrank's toxicologic emergencies. 7th ed. New York, NY: McGraw Hill, 2002:1379-92.

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- 2. Edmunds M, Sheehan TM, Van't Hoff W. Strychnine poisoning: clinical and toxicological observations of a non-fatal case. J Toxicol Clin Toxicol 1986;24:245-55.
- 3. Smith BA. Strychnine poisoning [review]. J Emerg Med 1990;321-5.
- 4. Perper JA. Fatal strychnine poisoning---a case report and review of the literature. J Forensic Sci 1985;30:1248-55.

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

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