



## CASE DEFINITION

### Toxic Alcohols

#### Clinical description

Ingestion of toxic alcohols (methanol, ethylene glycol, or other glycols) might result in symptoms similar to those of ethanol inebriation (vomiting, lethargy, or coma). A high anion gap metabolic acidosis is common. Renal failure is common after ethylene glycol and diethylene glycol toxicity, whereas optic neuritis and visual impairment are unique to methanol toxicity (1-4).

#### Laboratory criteria for diagnosis

- *Biologic*: A case in which glycols or methanol in whole blood is detected, as determined by hospital or commercial laboratory tests.
- OR-
- *Environmental*: Detection of glycols or methanol 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 toxic alcohol exposure, or an epidemiologic link exists between this case and a laboratory-confirmed case.
- *Confirmed*: A clinically compatible case in which laboratory tests 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. Anderson IB. Ethylene glycol and other glycols. In: Olson KR, ed. Poisoning & drug overdose. 4th ed. New York, NY: McGraw-Hill; 2004:194-8.

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2. Barceloux DG, Krenzelok EP, Olson K, Watson W. American Academy of Clinical Toxicology practice guidelines on the treatment of ethylene glycol poisoning. *J Toxicol Clin Toxicol* 1999;37:537-60.
3. Brent J, McMartin K, Phillips S, et al. Fomepizole for the treatment of ethylene glycol poisoning: methylpyrazole for toxic alcohols study group. *N Engl J Med* 1999;30:832-8.
4. Hanif M, Mobarak MR, Ronan A, Ralman D, Donovan JJ Jr, Bennish ML. Fatal renal failure caused by diethylene glycol in paracetamol elixir: the Bangladesh epidemic. *BMJ* 1995;311:88-91.

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](http://www.bt.cdc.gov/chemical), or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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