



Centers for Disease Control and Prevention

CDC 24/7: Saving lives, protecting people, reducing health costs

**Emergency  
Preparedness and  
Response**

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## Case Definition: Mercury (Organic)

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### Clinical description

Although ingestion of organic mercury is the most typical route of organic mercury toxicity, toxicity also might result from inhalation and dermal exposures, particularly with dimethylmercury. Symptoms of toxicity can be delayed for weeks after organic mercury exposure and usually involve the central nervous system. These symptoms might include paresthesias, headaches, ataxia, dysarthria, visual field constriction, blindness, and hearing impairment (1-5).

### Laboratory criteria for diagnosis

- *Biologic*: A case in which whole blood mercury levels ( $>10 \mu\text{g/L}$ ) (1) are detected, as determined by a commercial laboratory. Urine mercury levels are not useful in evaluating organic mercury poisoning. (1-5)

- OR -

- *Environmental*: Detection of mercury in environmental samples. (6-9)

### 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 organic mercury 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 the etiology of the agent is known with 100% certainty.

### Additional resources

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4. Nierenberg DW, Nordgren RE, Chang MB, et al. Delayed cerebellar disease and death after accidental exposure to dimethylmercury. N Eng J Med 1998;338:1672-76.
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