CASE DEFINITION

Thallium

Clinical description

Ingestion of toxic amounts of thallium might cause gastrointestinal signs and symptoms, most commonly abdominal pain. Subacute symptoms (onset of days to weeks) after a substantial, acute exposure or a chronic exposure to limited amounts of thallium might include severely painful ascending neuropathy, ataxia, seizure, alopecia, and neurocognitive deficits (1-3).

Laboratory criteria for diagnosis

- **Biologic**: A case in which elevated spot urine thallium levels are detected (reference level: <0.5 µg/L) (20), as determined by a commercial laboratory.
- **Environmental**: Detection of thallium 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 thallium 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


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).