



MERCURY (Elemental, Organic, and Inorganic)

I. Protocol Overview

Mercury has no known biological function and is highly toxic. Ingestion of organic mercury (most toxic) is the most typical route of mercury toxicity, but can result from inhalation and dermal exposures, particularly with dimethylmercury. Usually involving the central nervous system, symptoms of toxicity are typically delayed for > 1 month after mercury exposure and may include: blindness, dyspnea, respiratory distress, neurotoxicity (paresthesias, tremors, emotional lability, headaches, polyneuropathy, muscle weakness, irritability, memory loss, depression), "mercurial erythrim" (excitability, memory loss, insomnia, timidity, delirium), severe GI corrosion, hypertension, tachycardia, and nephrotic syndrome. In advanced cases, symptoms of toxicity are: ataxia and dysarthria, loss of peripheral vision, hearing impairment, and limb sensory deficits, and death may sometimes occur. Mercury exposure in children may cause Pink disease (acrodynia) with symptoms of flushing, itching, swelling, tachycardia, weakness, hypertension, excessive salivation/perspiration, irritability, and rashes.

For all suspected chemical exposures, consult the Poison Control Center (800-222-1222) located at Children's Hospital of Philadelphia. Information and treatment advice is available to the public and healthcare professionals at no charge.

Inductively Coupled Plasma Mass spectrometry (ICP/MS) methods are used to detect total mercury present in the blood and food samples. Samples are acidified and mercury is quantified via elemental separation followed by mass spectrometry analysis. ICP/MS, ICP spectroscopy and flow injection mercury system (FIMS) methods are used to detect metals in environmental samples.

The Delaware Public Health Laboratory does not perform this testing. Contact the CDC or the Poison Control Center.

II. Contact Information

24/7 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

<http://emergency.cdc.gov/agent/mercury/mercorgcasedef.asp>

<http://emergency.cdc.gov/agent/mercury/mercinorgcasedef.asp>

<http://emergency.cdc.gov/agent/mercury/mercelementalcasedef.asp>

24/7 Emergency Contact Number: 302-223-1520

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