



## METALS

### I. Protocol Overview

Virtually all metals are toxic if they are ingested in large enough quantities. Symptoms of heavy metal toxicity include mental confusion, muscle and joint pain, headaches, short-term memory loss, gastrointestinal upsets, food intolerances/allergies, vision problems, chronic fatigue, and others. The symptoms are so vague that it is difficult to diagnose based on symptoms alone. Symptoms will often begin to improve within weeks or even days of commencing treatment. Although complete cure is possible, the effects of toxicity for extended periods may continue, and some of the damage may not be fully reversible. Therapy may last from six months to two years.

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 urinary and blood metals present in the sample. Samples are acidified and metals are quantified via elemental separation followed by mass spectrometry analysis. ICP/MS, ICP spectroscopy and flame atomic adsorption spectroscopy (FAAS) methods are used to detect metals in environmental and food samples.

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

### II. Contact Information

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

Poison Control Center: 215-386-2100

### III. CDC Website

<http://emergency.cdc.gov/agent/metals/>