



BARIUM

I. Protocol Overview

Barium is a metal that can cause severe medical complications if ingested at high levels. Nausea, vomiting, and profuse watery diarrhea occur rapidly after exposure, intentional or accidental ingestion of soluble barium salts. Severe exposure symptoms can include severe muscle weakness, respiratory arrest, coma, cardiac arrhythmia, hypertension, severe hypokalemia, or electrolyte imbalance. Barium sulfate is not absorbed when taken by mouth and is commonly used as a contrast agent for radiographic procedures.

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 the urinary barium present in the sample. Samples are acidified and barium is quantified via elemental separation followed by mass spectrometry analysis. ICP/MS, ICP spectroscopy, and flame atomic adsorption spectroscopy (FAAS) methods are used to detect barium 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 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

http://www.cdc.gov/biomonitoring/Barium_BiomonitoringSummary.html