



LEAD

I. Protocol Overview

Lead is a naturally occurring bluish-gray metal found in small amounts in the Earth's crust. Lead can be found in all parts of our environment. Much of it comes from human activities including burning fossil fuels, mining, and manufacturing. Lead is used in the production of batteries, ammunition, metal products, and devices to shield X-rays. In 1996, the U.S. banned lead as an additive to gasoline.

Signs and symptoms of lead exposure are varied. Exposure to high amounts can cause dullness, irritability, poor attention span, epigastric pain, constipation, vomiting, convulsions, coma, and death and in children, residual cognitive deficits.

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.

Lead can be detected in bone, urine, blood, fecal matter, and other bodily fluids, but is most commonly monitored in blood. Preliminary blood lead screening may be performed via anode stripping voltmetry (ASV) methods. 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 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 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

<http://www.atsdr.cdc.gov/toxfaqs/TF.asp?id=93&tid=22>

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

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