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**Lab Dept:** Chemistry

**Test Name:** LEAD LEVEL

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***General Information***

**Lab Order Codes:** LEAD

**Synonyms:** Blood Lead; Pb

**CPT Codes:** 83655 - Lead

**Test Includes:** Blood lead concentration reported in ug/dL.

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***Logistics***

**Test Indications:** Lead is a heavy metal commonly found in the environment. Lead can be an acute and chronic toxin. Young children are particularly prone to the effects of lead because they have a greater opportunity for exposure.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours  
Test performed Monday – Friday during day operating hours, except on holidays.

**Turnaround Time:** 1 – 4 days

**Special Instructions:** [See Collection](#)

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***Specimen***

**Specimen Type:** Whole blood

**Container:** Dark Blue top with Lavender Stripe (EDTA, metal free) tube  
Alternate: Lavender top (EDTA) microtainer or Green top NO GEL (Lithium Heparin)

**Note:** Microtainers preferred for minimum volume when drawn into EDTA tubes only.

<b>Draw Volume:</b>	Venous: Minimum: 1.5 mL blood (full tube capacity, preferred) Capillary: 0.5 mL blood
<b>Processed Volume:</b>	Same as draw volume
<b>Collection:</b>	Venous samples are preferred by routine venipuncture. Capillary specimens collected with scrupulous hand washing, will be accepted with the restriction that elevated lead must be confirmed with a venous sample.
<b>Special Processing:</b>	Lab Staff: <b>Do Not</b> centrifuge. Samples should remain as whole blood in original collection tube. Store at refrigerated temperature.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Mislabeled or unlabeled specimen; clotted specimen; collected in green gel microtainer tube

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### ***Interpretive***

<b>Reference Range:</b>	<5 ug/dL  All blood lead results are reported to the MN Department of Health.
<b>Critical Values:</b>	>30 ug/dL
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Atomic Absorption, Graphite Furnace
<b>References:</b>	Tietz (1999) Textbook of Clinical Chemistry, 3 <sup>rd</sup> edition, Philadelphia, WB Saunders Co, pp 989-990  Minnesota Department of Health Lead Program (2005), PO Box 64974, St Paul, MN, December 2005  NCCLS Approved Guideline C40-A, Analytical Procedures for the Determination of Lead in Blood and Urine, Vol 21, No 9, June 2001  CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention  Recommendations in "Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention", June/7/2012 (reference range).

**Updates:**

6/11/2007: Microtainer green top gel tubes are not acceptable containers for lead collections.

10/7/2013: Reference range previously listed as <10 ug/dL.

2/9/2016: Update container types.

2/14/2017: Tube update

4/19/2017: Added alternate tube Green (Li Heparin)

2/12/25: Updated test code