

Client: Example Client ABC123  
123 Test Drive  
Salt Lake City, UT 84108  
UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 10/13/2001  
**Gender:** Female  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Heavy Metals Panel 4, Blood**

ARUP test code 0020584

Cadmium, Blood

<1.0 ug/L (Ref Interval: 0.0-5.0)

INTERPRETATION INFORMATION: Cadmium, Blood

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of blood cadmium, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Blood cadmium levels can be used to monitor acute toxicity and in combination with cadmium urine and B-2 microglobulin is the preferred method for monitoring occupational exposure. Symptoms associated with cadmium toxicity vary based upon route of exposure and may include tubular proteinuria, fever, headache, dyspnea, chest pain, conjunctivitis, rhinitis, sore throat and cough. Ingestion of cadmium in high concentration may cause vomiting, diarrhea, salivation, cramps, and abdominal pain.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

Lead, Blood (Venous)

<2.0 ug/dL (Ref Interval: 0.0-4.9)

H=High, L=Low, \*=Abnormal, C=Critical

INTERPRETIVE INFORMATION: Lead, Blood (Venous)

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified lead-free tube. If contamination concerns exist due to elevated levels of blood lead, confirmation with a second specimen collected in a certified lead-free tube is recommended.

Information sources for reference intervals and interpretive comments include the "CDC Response to the 2012 Advisory Committee on Childhood Lead Poisoning Prevention Report" and the "Recommendations for Medical Management of Adult Lead Exposure, Environmental Health Perspectives, 2007." Thresholds and time intervals for retesting, medical evaluation, and response vary by state and regulatory body. Contact your State Department of Health and/or applicable regulatory agency for specific guidance on medical management recommendations.

Age	Concentration	Comment
All ages	5-9.9 ug/dL	Adverse health effects are possible, particularly in children under 6 years of age and pregnant women. Discuss health risks associated with continued lead exposure. For children and women who are or may become pregnant, reduce lead exposure.
All ages	10-19.9 ug/dL	Reduced lead exposure and increased biological monitoring are recommended.
All ages	20-69.9 ug/dL	Removal from lead exposure and prompt medical evaluation are recommended. Consider chelation therapy when concentrations exceed 50 ug/dL and symptoms of lead toxicity are present.
Less than 19 years of age	Greater than 44.9 ug/dL	Critical. Immediate medical evaluation is recommended. Consider chelation therapy when symptoms of lead toxicity are present.
Greater than 19 years of age	Greater than 69.9 ug/dL	Critical. Immediate medical evaluation is recommended. Consider chelation therapy when symptoms of lead toxicity are present.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

Mercury Blood <2.5 ug/L (Ref Interval: 0.0-10.0)

H=High, L=Low, \*=Abnormal, C=Critical

INTERPRETIVE INFORMATION: Mercury, Blood

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of blood mercury, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Blood mercury levels predominantly reflect recent exposure and are most useful in the diagnosis of acute poisoning as blood mercury concentrations rise sharply and fall quickly over several days after ingestion. Blood concentrations in unexposed individuals rarely exceed 20 ug/L. The provided reference interval relates to inorganic mercury concentrations. Dietary and non-occupational exposure to organic mercury forms may contribute to an elevated total mercury result. Clinical presentation after toxic exposure to organic mercury may include dysarthria, ataxia and constricted vision fields with mercury blood concentrations from 20 to 50 ug/L.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

Arsenic Blood

<10.0 ug/L (Ref Interval: 0.0-12.0)

INTERPRETIVE INFORMATION: Arsenic, Blood

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of blood arsenic, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Potentially toxic ranges for blood arsenic: Greater than or equal to 600 ug/L.

Blood arsenic is for the detection of recent exposure poisoning only. Blood arsenic levels in healthy subjects vary considerably with exposure to arsenic in the diet and the environment. A 24-hour urine arsenic is useful for the detection of chronic exposure.

Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS

H=High, L=Low, \*=Abnormal, C=Critical

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Cadmium, Blood	20-113-106037	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Lead, Blood (Venous)	20-113-106037	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Mercury Blood	20-113-106037	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Arsenic Blood	20-113-106037	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, \*=Abnormal, C=Critical