

## TEST CHANGE

### Heavy Metals Panel 4, Whole Blood

0020584, HY MET B4

#### Specimen Requirements:

**Patient Preparation:** Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, non-essential over-the-counter medications (upon the advice of their physician), and avoid shellfish and seafood for 48 to 72 hours.

**Collect:** Royal blue(K2EDTA) or Royal blue (NaHep).

**Specimen Preparation:** Transport 3 or 6 mL whole blood in the original collection tube. (Min: 0.5 mL)

**Transport Temperature:** Room temperature. Also acceptable: Refrigerated.

**Unacceptable Conditions:** Specimens collected in tubes other than Royal blue(K2EDTA) or Royal blue (NaHep). Specimens transported in containers other than Royal blue (K2EDTA) or Royal blue (NaHep). Trace Element-Free Transport Tube. Clotted specimens.

#### Remarks:

**Stability:** Ambient: 1 week; Refrigerated: 1 week; Frozen: Unacceptable

**Methodology:** Quantitative Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

**Performed:** Sun-Sat

**Reported:** 1-3 days

**Note:** Mercury is volatile; concentration may decrease over time. If the specimen is drawn and stored in the appropriate container, the arsenic, cadmium, and lead values do not change with time.

**CPT Codes:** 82175; 83655; 83825; 82300

**New York DOH Approval Status:** This test is New York DOH approved.

#### Interpretive Data:

Refer to report.

#### Reference Interval:

Test Number	Components	Reference Interval		
	Lead, <u>Whole</u> Blood (Venous)	<u>Less than or equal to 3.4 µg/L</u>		
	<u>Lead, Whole Blood (Venous)</u>			
		Concentration	Comment	
		3.5-19.9 ug/dL	Children under the age of 6 years are the most vulnerable to the harmful effects of lead exposure. Environmental investigation and exposure history to identify potential sources of lead. Biological and nutritional monitoring are recommended. Follow-up blood lead monitoring is recommended.	
		20-44.9 ug/dL	Lead hazard reduction and prompt medical evaluation are recommended. Contact a Pediatric Environmental Health Specialty Unit or poison control center for guidance.	
		Greater than 44.9 ug/dL	Critical. Immediate medical evaluation, including detailed neurological exam is recommended. Consider chelation therapy when symptoms of lead toxicity are present. Contact a Pediatric Environmental Health Specialty Unit or poison control center for assistance.	
	Lead, <u>Whole</u> Blood (Venous)			

		Concentration	Comment	
		5-19.9 ug/dL	Medical removal is recommended for pregnant women or those who are trying or may become pregnant. Adverse health effects are possible. Reduced lead exposure and increased blood lead monitoring are recommended.	
		20-69.9 ug/dL	Adverse health effects are indicated. Medical removal from lead exposure is required by OSHA if blood lead level exceeds 50 ug/dL. Prompt medical evaluation is recommended.	
		Greater than 69.9 ug/dL	Critical. Immediate medical evaluation is recommended. Consider chelation therapy when symptoms of lead toxicity are present.	
	<b>Lead, Blood (Venous)</b>			
		Age	Reference Interval (ug/dL)	
		0-5 years	Less than or equal to 3.4	
		6 years or above	Less than or equal to 4.9	
	Arsenic, <b>Whole</b> Blood	Less than or equal to 12 .0 µg/L		
	Mercury, <b>Whole</b> Blood	Less than or equal to 10.0 µg/L		
	Cadmium, <b>Whole</b> Blood	Less than or equal to 5.0 µg/L		