

TEST CHANGE

Thallium, Whole Blood

0099610, THALB

Specimen Requirements:

Patient Preparation: Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and ~~nonessential~~~~non-essential~~ over-the-counter medications (upon the advice of their physician).

Collect: Royal blue (K2EDTA) or ~~r~~Royal blue (NaHep).

Specimen Preparation: Transport 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 ~~r~~Royal blue (K2EDTA) or ~~r~~Royal blue (NaHep). Specimens transported in containers other than a ~~r~~Royal blue (K2EDTA) or ~~r~~Royal blue (NaHep) tube or ~~trace element-free transport tube~~~~Trace Element-Free Transport Tube~~. Heparin anticoagulant. Clotted specimens.

Remarks:

Stability: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

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

Performed: Sun-Sat

Reported: 1-3 days

Note:

CPT Codes: 83018

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

Interpretive Data:

~~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 thallium, confirmation with a second specimen collected in a certified metal-free tube is recommended.~~

Blood thallium levels reflect recent exposure as thallium has a biological half-life of approximately 2 to 4 days. Blood levels greater than 100 $\mu\text{g/g}$ /L are considered toxic and greater than 300 $\mu\text{g/g}$ /L indicate severe ingestion. ~~Reported symptoms after~~After severe thallium poisonings, ~~reported symptoms~~have varying times of onset and include gastroenteritis, ~~multiorgan~~multi-organ failure and neurologic injury. Peripheral neuropathy and alopecia are well-documented effects of acute and chronic exposure. Human health effects from low level thallium exposure are unknown.

Elevated results may be due to skin- or collection-related contamination, including the use of tubes that are not certified to be trace element free. If an elevated result is suspected to be due to contamination, confirmation with a second specimen collected in a certified trace element-free tube is recommended.

Methodology: Inductively Coupled Plasma-Mass Spectrometry (ICP-MS). ~~level thallium exposure are unknown.~~

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.~~

Reference Interval:

Less than or equal to 2.0 $\mu\text{g/L}$