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**Lab Dept:** Chemistry

**Test Name:** LITHIUM LEVEL

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***General Information***

**Lab Order Codes:** LI (Mayo), LIT (MedTox for STAT availability)

**Synonyms:** Li, Eskalith®, Lithobid®

**CPT Codes:** 80178 - Lithium

**Test Includes:** Lithium level reported in mmol/L (Mayo) and mEq/L (MedTox).

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***Logistics***

**Test Indications:** Monitoring therapy of patients with bipolar disorders, including recurrent episodes of mania and depression.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: LITH)  
MedTox Laboratories (for Stat availability)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 day

Stat testing referred to MedTox

**Special Instructions:** **Do not** use Lithium Heparin tube.

If this is a STAT order, please check with the provider to see if the specimen should be shipped immediately and performed STAT by the reference lab at an additional cost. If immediate shipment is necessary, please call the lab to make arrangements.

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***Specimen***

**Specimen Type:** Blood

**Container:** Red NO GEL tube

<b>Draw Volume:</b>	1.5 mL (Minimum: 0.75 mL) blood
<b>Processed Volume:</b>	0.5 mL (Minimum: 0.25 mL) serum
<b>Collection:</b>	Routine venipuncture
<b>Special Processing:</b>	Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Lithium heparin tube; gross hemolysis; gross lipemia; grossly icteric; mislabeled or unlabeled specimens

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### ***Interpretive***

<b>Reference Range:</b>	Mayo: 0.5 – 1.2 mmol/L (Trough concentration – therapeutic concentration)  MedTox: 0.6 – 1.2 mEq/L
<b>Critical Values:</b>	Mayo: >1.6 mmol/L MedTox: 1.5 mEq/L
<b>Limitations:</b>	N/A
<b>Methodology:</b>	Mayo: Colorimetric MedTox: Inductively Coupled Plasma/Mass Spectrometry (ICP-MS)
<b>References:</b>	<a href="#">Mayo Medical Laboratories Web Site</a> (November 2017) <a href="#">MedTox, Inc</a> (November 2017)
<b>Updates:</b>	3/1/2004: Test moved from MedTox Laboratories to Mayo Medical Laboratories. Note: Change in lower end of reference range from 0.6 to 0.8 mEq/L. 7/7/2006: Units updated to mmol/L, previously listed as mEq/L for MML. 10/25/2012: Toxic concentration previously listed as >1.5 mmol/L. 6/26/2015: Method and ref range update at MML. 11/8/2017: Red NO GEL tube necessary to satisfy either ref lab