Lithium Levels | **Renal Function** | **Thyroid Function** **Electrolytes** **Hematology**

Lithium has a narrow therapeutic index requiring regular monitoring of serum levels and organ function. This guide provides interpretation of lithium levels and associated laboratory parameters essential for safe prescribing.

Parameter	Result	Reference Range	Status
Lithium Level	0.8 mEq/L	0.6-1.2 mEq/L	**Normal (Therapeutic)**
Serum Creatinine	1.0 mg/dL	0.7-1.3 mg/dL	**Normal**
eGFR	85 mL/min	>60 mL/min	**Normal**
TSH	3.8 mIU/L	0.4-4.0 mIU/L	**Normal (High Normal)**
Sodium	138 mEq/L	135-145 mEq/L	**Normal**
Calcium	10.2 mg/ dL	8.5-10.5 mg/	

dL Normal

Clinical Interpretation

Current lithium level is within the therapeutic range for maintenance treatment of bipolar disorder. Renal function parameters are normal, indicating appropriate lithium clearance. TSH is at the upper end of normal range, suggesting the need for continued monitoring of thyroid function. Electrolytes are within normal limits.

Lithium Level

0.0 0.6 1.2 2.0+

Current: 0.8 mEq/L - Within therapeutic range for maintenance (0.6-0.8 mEq/L). For acute mania, target range is 0.8-1.2 mEq/L.

Monitoring Frequency

Recommendation: Continue quarterly monitoring of lithium levels, renal and thyroid function.

Next test due: August 15, 2025

More frequent monitoring indicated with dose changes, medication additions, or illness.

Medication Interactions Affecting Lithium Levels

Medication Class	Effect on Lithium	Implications
NSAIDs	↑ Lithium levels	Monitor levels 4-7 days after starting NSAID
Thiazide Diuretics	↑ Lithium levels	Monitor levels weekly until stable, then monthly
ACE Inhibitors	↑ Lithium levels	Monitor

		starting
Loop Diuretics **Monitoring** **Implications**	**Variable effect**	Monitor levels after initiation
Sodium-containing	Monitor levels 7-10 days after medications **↓ Lithium levels**	Monitor if efficacy concerns arise

Print Guide

References

***Creatinine*. (2021, September 17). Testing.com.**

https://www.testing.com/tests/creatinine/

Finley, P. R., Warner, M. D., & Peabody, C. A. (1995). Clinical Relevance of Drug Interactions with Lithium. *Clinical Pharmacokinetics*, *29*(3), 172–191.

https://doi.org/10.2165/00003088-199529030-00004

***Lithium Testing*. (2022, February 17). Testing.com.**

https://www.testing.com/tests/lithium/

Malhi, G. S., Bell, E., Outhred, T., & Berk, M. (2020). Lithium therapy and its interactions. *Australian Prescriber*, *43*(3).

https://australianprescriber.tg.org.au/articles/lithium-therapy-and-its-interactions.html

Ragheb, M. (1990). The clinical significance of lithium-nonsteroidal

anti-inflammatory drug interactions. ***Journal of Clinical Psychopharmacology***, ***10***(5), 350–354.

https://pubmed.ncbi.nlm.nih.gov/2258452/