

(Ion Selective Electrode)

mmol/L

0.40-1.20

## Interpretation

State	Reference range in mmol/L
Normal	0.40-1.20
Warning	1.20-1.50
Risk of intoxication	>1.50

**Note:** It is recommended to use a standard 12 hour post dose Lithium concentration to assess adequate therapy.

## Comments

Lithium is available commercially as citrate and carbonate salts. Lithium salts are considered to be anti-manic agents and are used for the prophylaxis and treatment of bipolar disorder (Manic depressive psychosis). In addition, lithium is considered by some investigators to be the drug of choice for prevention of chronic cluster headache and may also be effective in episodic or periodic forms of cluster headache. Complete absorption of lithium occurs after 6-8 hrs of oral administration. Plasma half life varies from 17-36 hrs and onset of action is slow ( 5-10 days). Since lithium shows delayed and varied tissue distribution, symptoms of acute intoxication may not correlate well with serum levels. Toxicity may occur acutely as a result of single toxic dose or chronically from high / prolonged dosages of lithium. Fever, diarrhea, vomiting, diuretics and pyelonephritis are contributing factors in underlying chronic intoxication. Renal toxicity and hypothyroidism are also known side effects of lithium administration. Thus it is advisable to monitor creatinine and TSH levels periodically in patients on lithium.