
Lab Dept: Chemistry

Test Name: THEOPHYLLINE LEVEL

General Information

Lab Order Codes: THEO

Synonyms: Aminophylline; Theodur; Slo-Bid

CPT Codes: 80198 - Theophylline

Test Includes: Theophylline concentration reported in ug/mL.

Logistics

Test Indications: Theophylline relaxes bronchial smooth muscles to relieve or prevent asthma. Caffeine is a minor metabolite and is often seen in neonates taking theophylline. Peak levels are achieved in 30–90 minutes depending on the compound and type of preparation. The biologic half-life ranges from 3.5 hours in young children to 8–9 hours in adults.

Lab Testing Sections: Chemistry (all specimens analyzed on the Mpls Campus)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Green top (Li Heparin) tube **preferred**
Alternate tube: Red, marble or gold top tube

Draw Volume: 0.6 mL blood

Processed Volume: 0.2 mL serum/plasma

Collection: Routine venipuncture. Mix tubes containing anticoagulant by gentle inversion.

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Store at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range:

Therapeutic Concentration:	10 - 20 ug/mL
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Critical Values:

Toxic concentration: >25 ug/mL

Limitations:

N/A

Methodology:

Particle-Enhanced Turbidimetric Inhibition Immunoassay (PETINIA)

References:

Jacobs and DeMott Laboratory Test Handbook (2001) Lexi-comp, Inc, Hudson, OH, 5th ed

Siemens Dimension Vista THEO Flex Insert, PIN 781071.00, 11/6/2013, Rev D

Updates:

12/22/2011: Turnaround time updated, previously listed as 4 hours.
2/9/2016: Update alt tube type
7/8/2016: TAT update, previously 2 hours