Lab Dept: Chemistry

Test Name: T3 UPTAKE

General Information

Lab Order Codes:	T3U
Synonyms:	T3 Uptake; T Uptake; T3U
CPT Codes:	84479 – Thyroid hormone (T3 or T4) uptake or thyroid hormone binding ratio (THBR)
Test Includes:	T3 Uptake reported in % uptake.

Logistics

Test Indications:	As an estimate of the amount of circulating free thyroxine, when in conjunction with total thyroxine results to calculate the free thyroxine index. The thyroid hormone T3 and T4 are bound primarily to thyroxine-binding globulin, thyroxine binding prealbumin and albumin. This assay measures the number of unoccupied binding sites on these proteins and is an indirect indicator of thyroid status.
Lab Testing Sections:	Chemistry – Sendouts
Referred to:	Mayo Medical Laboratories (MML Test: 81792/TUP)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	1 – 2 days
Special Instructions:	N/A

Specimen

Specimen Type:	Blood
Container:	Red top (plain, no gel) tube
Draw Volume:	1.5 mL (Minimum: 0.9 mL) blood
Processed Volume:	0.5 mL (Minimum: 0.3 mL) serum

Collection: Routine venipuncture

Special Processing: Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped plastic vial. Store and ship at refrigerated temperatures. Forward promptly.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen; gross hemolysis

Interpretive

Reference Range:

Age:	**Range (%):**
Males:	27 – 37%
Females:	20 – 37%

Critical Values: N/A

Limitations: T3 Uptake values are a function of the thyroid hormone binding capacity of serum.

Conditions that decrease T-3 Uptake values include: Pregnancy; elevated estrogen levels; acute hepatitis; drugs that prevent ovulation.

Conditions that elevate T3 Uptake values include: Protein malnutrition; chronic liver disease; nephrotic syndrome; phenytoin therapy; heparin therapy; uremia; large doses of salicylates; antibiotics.

Thyroid preparations that maintain normal T3 and thyroxine concentrations can elevate T3 Uptake values when the dose hormone is excessive and decrease T3 Uptake values when the dose is inadequate.

Replacement therapy with T3 results in decreased T3 Uptkae values.

Methodology: Chemiluminometric immunoassay

References: Mayo Medical Laboratories January 2013

Updates: 1/1/2013: Moved from an internal test at Children's to Mayo Medical Laboratories. Note change in reference ranges and methodology.