**Lab Dept:** Chemistry  
**Test Name:** REVERSE T3

### General Information

**Lab Order Codes:** RT3  
**Synonyms:** Triiodothyronine, Reverse; Reverse Triiodothyronine; T3, Reverse  
**CPT Codes:** 84482 – Triiodothyronine T3; reverse  
**Test Includes:** Reverse T3 level reported in ng/dL.

### Logistics

**Test Indications:** Reverse T3 (rT3) differs from thyroid hormones in that it has no effect on metabolic rate and indeed may be a waste product. Patients with abnormalities of energy metabolism may also show significant variations in serum rT3 levels. Caloric deprivation (fasting) usually results in higher concentrations of rT3, as do various systemic diseases involving fever. This appears to result from the conversion of T4 to rT3 being favored at the expense of T3 production. Hence, rT3 measurements may be useful in the diagnosis of the Sick Euthyroid Syndrome. Most drugs that affect thyroid function also change rT3 levels.

**Lab Testing Sections:** Chemistry - Sendouts  
**Referred to:** Fairview University of Minnesota (Fairview Code: ARMISC) forward to ARUP laboratories (2007918)  
**Phone Numbers:** MIN Lab: 612-813-6280  
STP Lab: 651-220-6550  
**Test Availability:** Daily, 24 hours  
**Turnaround Time:** Results within 8 days, performed Sunday - Monday  
**Special Instructions:** N/A

### Specimen

**Specimen Type:** Blood  
**Container:** Red top tube  
Alternate: Lavender (EDTA) top tube
**Draw Volume:** 6 mL (Minimum: 3 mL) blood

**Processed Volume:** 2 mL (Minimum: 1 mL) serum/plasma

**Collection:** Routine Venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen. Centrifuge and aliquot within 2 hours of collection. Aliquot serum/plasma into a screw top plastic vial. Store and ship at frozen temperatures. Forward to reference laboratory.

**Patient Preparation:** None

**Sample Rejection:** Unlabeled or mislabeled specimens; gross hemolysis

### Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>Age:</th>
<th>Reference Range:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0 – 17 years:</td>
<td>Not established</td>
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<tr>
<td></td>
<td>18 and older:</td>
<td>9.0 – 27.0 ng/dL</td>
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**Critical Values:** N/A

**Limitations:** This test was developed and its performance characteristics determined by ARUP Laboratories. The U.S. Food and Drug Administration has not approved or cleared this test; however, FDA clearance or approval is not currently required for clinical use. The results are not intended to be used as the sole means for clinical diagnosis or patient management decisions.

**Methodology:** Liquid Chromatography – Tandem Mass Spectrometry

**References:**
- Fairview Diagnostic Laboratories (July 2013)
- ARUP Laboratories (July 2013)

**Updates:** 7/24/2013: Reference range update, units previously reported as pg/mL.