**General Information**

**Lab Order Codes:** CORTI

**Synonyms:** N/A

**CPT Codes:** 82533 – Cortisol; total

**Test Includes:** Serum cortisol measured in mcg/dL.

**Logistics**

**Test Indications:** Useful for patients who are not, or are not suspected to be, taking exogenous glucocorticoids, namely: fludrocortisones, prednisolone, or prednisone. Cortisol is the primary adrenal glucocorticoid steroid hormone and is normally under feedback control by pituitary ACTH and the hypothalamus. Due to circadian variation, random single samples are of little value diagnostically. Reference values for 5 – 11 AM are published with results at Children's Hospitals and Clinics, and 5 – 11 PM reference values are appended as a comment. Cortisol is elevated in Cushing’s Syndrome, hypoglycemia, stress and pregnancy.

**Lab Testing Sections:** Chemistry- Performed on the Minneapolis Campus

**Phone Numbers:**
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 – 6 hours

**Special Instructions:** N/A

**Specimen**

**Specimen Type:** Blood

**Container:** SST (Gold, marble or red)
Alternate: Green (LiHep or NaHep), Lavender (EDTA)

**Draw Volume:** 1.2 mL (Minimum: 0.6 mL) blood
Processed Volume: 0.4 mL (Minimum: 0.2 mL) serum

Note: Minimum does not allow for repeat analysis.

Collection: Routine blood collection

Special Processing: Lab Staff: Centrifuge specimen, remove serum/plasma into aliquot tube. Store at refrigerated temperatures if testing is delayed. Ship at refrigerated temperatures.

Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen; gross hemolysis

Interpretive

<table>
<thead>
<tr>
<th>Reference Range:</th>
<th>AM Specimens Reference Ranges (5 – 11 AM):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age:</td>
<td>Range (mcg/dL)</td>
</tr>
<tr>
<td>0 – 24 months:</td>
<td>0.8 – 28.6 mcg/dL</td>
</tr>
<tr>
<td>2 – 10 years:</td>
<td>0.8 – 27.7 mcg/dL</td>
</tr>
<tr>
<td>11 – 18 years:</td>
<td>0.8 – 23.5 mcg/dL</td>
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<tr>
<td>&gt;18 years:</td>
<td>4.2 – 21.0 mcg/dL</td>
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</tbody>
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<th>PM Specimen Reference Ranges (5 – 11 PM)</th>
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</tbody>
</table>

Critical Values: N/A

Limitations: N/A

Methodology: Chemiluminescent MicroParticle Immunoassay (CMIA)

Updates:

2/9/2016: Update container types
5/15/2018: New test method, reference ranges