
Lab Dept: Chemistry

Test Name: CORTISOL

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. 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 and 5 – 11 PM are published with results at Children's Hospitals and Clinics. Cortisol is elevated in Cushing's Syndrome, hypoglycemia, stress and pregnancy.

Lab Testing Sections: Chemistry (All specimens tested on the St. Paul campus)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: Stat: Within 12 hours
Routine: Performed daily

Special Instructions: N/A

Specimen

Specimen Type: Blood

Container: Red, marble or gold top tube

Draw Volume: 1.5 mL (Minimum: 1 mL) blood

Processed Volume: 0.5 mL (Minimum: 0.2 mL) serum

Collection:	Routine venipuncture
Special Processing:	Lab Staff: Centrifuge specimen, remove plasma/serum aliquot into plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.
Patient Preparation:	None
Sample Rejection:	Mislabeled or unlabeled specimen; grossly hemolyzed; or specimens other than serum

Interpretive

Reference Range:

AM Specimens Reference Ranges (5 – 11 AM):	
Age:	Range (mcg/dL)
0 – 24 months:	1.0 – 34.0 mcg/dL
2 – 10 years:	1.0 – 33.0 mcg/dL
11 – 18 years:	1.0 – 28.0 mcg/dL
>18 years:	5.0 – 25.0 mcg/dL
PM Specimen Reference Ranges (5 – 11 PM)	
0 – 24 months:	1.0 – 30.0 mcg/dL
2 – 11 years:	1.0 – 24.0 mcg/dL
11 – 18 years:	1.0 – 22.0 mcg/dL
>18 years:	3.0 – 16.0 mcg/dL

Critical Values:	N/A
Limitations:	N/A
Methodology:	Competitive Immunoassay using direct chemiluminescence
References:	Siemens Healthcare (August 13, 2008) Immulite 2000, Package Insert PN PIL2KCO-ZO Tietz (1999) Textbook of Clinical Chemistry, 3 rd edition, Philadelphia, WB Saunders Co, pp 1543 - 1546

Jacobs & DeeMott (2001) Laboratory Test Handbook, 5th edition, Lexi-Comp Inc, Hudson, Ohio, pp 154-155

Soldin, Brunara, Wong, (2003) Pediatric Reference Ranges, 4th edition

Updates:

2/9/2016: Update container types