

## **CORTISOL/CORTISONE, FREE, URINE**

### **#500013**

**NOTE:** The testing and reporting is equivalent to Rochester test Cortisol/Cortisone, Free, Urine (82948)

#### **USEFUL FOR:**

- Screening test for Cushing's syndrome
- Assisting in diagnosing acquired or inherited abnormalities of 11-beta-hydroxy steroid dehydrogenase (cortisol to cortisone ratio)
- Diagnosis of pseudo-hyperaldosteronism due to excessive licorice consumption

**METHODOLOGY:** Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

#### **REFERENCE VALUES:**

##### **CORTISOL**

- 0-2 years: not established
- 3-8 years: 1.4-20 ug/24 hours
- 9-12 years: 2.6-37 ug/24 hours
- 13-17 years: 4.0-56 ug/24 hours
- > or =18 years: 3.5-45 ug/24 hours

##### **CORTISONE**

- 0-2 years: not established
- 3-8 years: 5.5-41 ug/24 hours
- 9-12 years: 9.9-73 ug/24 hours
- 13-17 years: 15-108 ug/24 hours
- > or =18 years: 17-129 ug/24 hours

**SPECIMEN REQUIREMENTS:** 5 mL from a 24-hour urine collection. Add 10 g of boric acid as a preservative at the start of collection. See "Urine Preservatives" in Special Instructions for multiple collections. Send specimen refrigerated in a plastic, 13-mL urine tube.

**Note:** The addition of preservative or application of temperature controls must occur within 4 hours of completion of the collection.

#### **CAUTIONS:**

- This test has limited usefulness in the evaluation of adrenal insufficiency.
- Acute stress (including hospitalization and surgery), alcoholism, depression, and many drugs (eg, exogenous cortisone, anticonvulsants) can obliterate normal diurnal variation, affect response to suppression/stimulation tests, and increase baseline levels.
- This methodology (liquid chromatography-tandem mass spectrometry [LC-MS/MS]) eliminates analytical interferences including carbamazepine (Tegretol) and synthetic corticosteroids.
- Improper collection may alter results. For example, a missed morning collection may result in false-negative tests; an extra morning collection (ie, >24 hours) may give false-positive results.

- Renal disease (decreased clearance) may cause falsely low values.
- Values may be elevated to twice normal in pregnancy.
- Patients with exogenous Cushing's syndrome caused by ingestion of hydrocortisone will not have suppressed cortisol and cortisone values.

**LIST FEE:** \$ 173.80

**CPT CODE:** 82530/Cortisol, free  
83789/ quantitative, each specimen

**ANALYTIC TIME:** 2 days

**DAY(S) SET UP:** Mon – Friday, Varies

**QUESTIONS:** Contact your Mayo Medical Laboratories' Regional Manager  
Mary Erath, Mayo Medical Laboratories' Technologist Support  
Telephone: 800-533-1710



# TEST DEFINITION

7/28/2009

MML NAME/ORDER CODE CROSS-REFERENCE  
CODE NAME

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500013 CORTISOL/CORTISONE, FREE, U

MML MML TEST SETUP INFORMATION

ORDER CODE	EFF DATE	TC	TITLE	CHECKING NORMALS	PRINT NORMALS (# CODED)	PERFORM SITE *
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500013	7/22/2009		CORTISOL/CORTISONE, FREE, U			NEL
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TRANSPORT TEMP : REFRIG\FROZEN OK\AMBIENT WITH PRESERVATIVE OK

500029 COLLECTION DURATION

EXPECT RESULTS OF FORM : SHOULD BE 1-2 DIGITS

POSSIBLE RESULT VALUES INCLUDE : 24,RANDOM,RANDOM

UNITS: H

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500031 URINE VOLUME

EXPECT RESULTS OF FORM : SHOULD BE A 1, 2, 3, 4, OR 5 DIGIT WHOLE NUMBER

POSSIBLE RESULT VALUES INCLUDE : DNR

UNITS: mL

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500012 CORTISOL, U

UNITS: UG/24 H

NO SEX

No AGE	:		; #N500012
1D TO 2Y	:		; NOT ESTABLISHED
3Y TO 8Y	:	1.4-20	; 1.4-20
9Y TO 12Y	:	2.6-37	; 2.6-37
13Y TO 17Y	:	4.0-56	; 4.0-56
18Y TO 150Y	:	3.5-45	; 3.5-45

MALE

No AGE	:		; #N500012
1D TO 2Y	:		; NOT ESTABLISHED
3Y TO 8Y	:	1.4-20	; 1.4-20
9Y TO 12Y	:	2.6-37	; 2.6-37
13Y TO 17Y	:	4.0-56	; 4.0-56

MML TEST SETUP INFORMATION

ORDER CODE	EFF DATE	TC	TITLE	CHECKING NORMALS	PERFORM PRINT NORMALS (# CODED)	SITE *
500013	(CONTINUED)					
		500012	CORTISOL, U (CONTINUED)			
			18Y TO 150Y	: 3.5-45		; 3.5-45
			FEMALE			
			No AGE	:		; #N500012
			1D TO 2Y	:		; NOT ESTABLISHED
			3Y TO 8Y	: 1.4-20		; 1.4-20
			9Y TO 12Y	: 2.6-37		; 2.6-37
			13Y TO 17Y	: 4.0-56		; 4.0-56
			18Y TO 150Y	: 3.5-45		; 3.5-45
		500023	CORTISONE, U			
			UNITS: UG/24 H			
			NO SEX			
			No AGE	:		; #N500023
			1D TO 2Y	:		; NOT ESTABLISHED
			3Y TO 8Y	: 5.5-41		; 5.5-41
			9Y TO 12Y	: 9.9-73		; 9.9-73
			13Y TO 17Y	: 15-108		; 15-108
			18Y TO 150Y	: 17-129		; 17-129
			MALE			
			No AGE	:		; #N500023
			1D TO 2Y	:		; NOT ESTABLISHED
			3Y TO 8Y	: 5.5-41		; 5.5-41
			9Y TO 12Y	: 9.9-73		; 9.9-73
			13Y TO 17Y	: 15-108		; 15-108
			18Y TO 150Y	: 17-129		; 17-129
			FEMALE			
			No AGE	:		; #N500023
			1D TO 2Y	:		; NOT ESTABLISHED
			3Y TO 8Y	: 5.5-41		; 5.5-41
			9Y TO 12Y	: 9.9-73		; 9.9-73
			13Y TO 17Y	: 15-108		; 15-108
			18Y TO 150Y	: 17-129		; 17-129

\*PERFORMING SITE LEGEND

NEL MAYO MEDICAL LABORATORIES NEW ENGLAND  
 160 DASCUMB ROAD  
 ANDOVER, MA 01810

LAB DIRECTOR: LYNN A. CHERYK, PH.D.

MML MESSAGES USED AS NORMALS

CODE	TEXT
N500012	NOT ESTABLISHED (<=2 Y) 1.4-20 (3-8 Y) 2.6-37 (9-12 Y) 4.0-56 (13-17 Y) 3.5-45 (>=18 Y)

N500023	NOT ESTABLISHED (<=2 Y) 5.5-41 (3-8 Y) 9.9-73 (9-12 Y) 15-108 (13-17 Y) 17-129 (>=18 Y)
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TOTAL OF 2 NORMALS CODES

\*\*\* END OF REPORT \*\*\*



## LABORATORY SERVICE REPORT

1-800-533-1710

PATIENT NAME NE-FREE, CORT-2		PATIENT NUMBER		AGE 12M	SEX M	ACCESSION # G9132242
ORDERING PHYSICIAN		CLIENT ORDER #				ACCOUNT # LIAISONS
COLLECTION 07/20/09 01:39 P	RECEIVED 07/20/09 01:39 P	REPORT PRINTED 07/28/09 09:35 A		SPECIMEN INFORMATION DATE OF BIRTH:		
<b>DATE</b>	<b>TIME</b>	<b>DATE</b>	<b>TIME</b>			
Test Client Attn: Mayo Liaisons 200 First Street SW Rochester, MN 55905 507-284-8202						

TEST REQUESTED	HI LO	REF RANGE	PERFORM SITE *
<b>Cortisol/Cortisone, Free, U</b>			
Collection Duration	24	h	NEL
Urine Volume	200	mL	NEL
Cortisol, U	<0.2	ug/24 h	Not established NEL
Cortisone, U	<0.2	ug/24 h	Not established NEL

## \* PERFORMING SITE

NEL	Mayo Medical Laboratories New England 160 Dascomb Road Andover, MA 01810	Lab Director: Lynn A. Cheryk, Ph.D.
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PATIENT NAME NE-FREE, CORT-2	ORDER STATUS Final	COLLECTION DATE AND TIME 07/20/09 01:39 P
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Specimen receipt and report times are in CST/CDT

REPRINT

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