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**Lab Dept:** Chemistry

**Test Name:** TESTOSTERONE, TOTAL

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***General Information***

**Lab Order Codes:** TEST

**Synonyms:** Testosterone level

**CPT Codes:** 84403 – Testosterone; total

**Test Includes:** Total testosterone reported in ng/dL.

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***Logistics***

**Test Indications:** Useful for assessing LH secretion and Leydig cell function; evaluating gonadal and adrenal function. For pediatrics, it assists in the detection of hypogonadism in males, pituitary or hypothalamic disease, adrenal hyperplasia, and virilizing tumors of the adrenal gland or ovaries in females.

**Lab Testing Sections:** Chemistry - Sendouts

**Referred to:** Esoterix, Inc. (ESL Test: 500286)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 5 - 7 days, set up Monday - Saturday

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** Red top tube

**Draw Volume:** 2.4 mL (Minimum: 1.2 mL) blood

**Processed Volume:** 0.8 mL (Minimum: 0.4 mL) serum

**Note:** Minimum volume does not permit repeat analysis

**Collection:** Routine venipuncture

**Special Processing:** Lab Staff: Centrifuge specimen within one hour of collection. Remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly.

**Patient Preparation:** None

**Sample Rejection:** Specimen not separated within 1 hour of draw; mislabeled or unlabeled specimens

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***Interpretive***

**Reference Range:**

**Premature Infants:**

Age	Males	Females		
26-28 weeks, day 4	59 - 125 ng/dL	5 - 16 ng/dL		
31-35 weeks, day 4	37 - 198 ng/dL	5 - 22 ng/dL		
<b>Infants: Full Term Newborns</b>				
Males*	75 - 400 ng/dL			
Females**	20 - 64 ng/dL			
Infants: 1 - 7 months				
*Males: Levels decrease rapidly the first week to 20 - 50 ng/dL, then increase to 60 - 400 ng/dL between 20 - 60 days. Levels then decline to prepubertal range of <2.5 to 10 ng/dL by 7 months.				
**Females: Levels decrease during the first month to <10 ng/dL and remain there until puberty.				
<b>Prepubertal children:</b>				
<2.5 - 10 ng/dL				
<b>Puberty:</b>				
Tanner Stage	Age (Years)	Males (ng/dL)	Age (Years)	Females (ng/dL)
1	<9.8	<2.5 - 10	<9.2	<2.5 - 10
2	9.8 - 14.5	18 - 150	9.2 - 13.7	7 - 28
3	10.7 - 15.4	100 - 320	10.0 - 14.4	15 - 35
4	11.8 - 16.2	200 - 620	10.7 - 15.6	13 - 32
5	12.8 - 17.3	350 - 970	11.8 - 18.6	20 - 38
<b>Adults:</b>				
Males >18 years:		350 - 1030 ng/dL		
Females:				

Premenopausal	10 - 55 ng/dL
Postmenopausal	7 – 40 ng/dL

**Critical Values:**

N/A

**Limitations:**

N/A

**Methodology:**

HPLC Tandem Mass Spectrophotometry

**References:**

[Esoterix Laboratories](#) August 2016

**Updates:**

12/13/2010: Reference range updates.  
8/3/2016: Tube update, volume update.