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## Testosterone, Total, Bioavailable, and Free, Serum

**Test ID:** TTFB

### Explanation:

Due to instrument issues, bioavailable testosterone will be test down effective immediately. An update will be provided when normal testing resumes.

### Recommended Alternative Test:

## Testosterone, Total and Free, Serum

**Test ID:** TGRP

### Methodology:

FRTST: Equilibrium Dialysis/Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

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

### Reference Values:

#### TESTOSTERONE, FREE

Males (adult):

20-<25 years: 5.25-20.7 ng/dL

25-<30 years: 5.05-19.8 ng/dL

30-<35 years: 4.85-19.0 ng/dL

35-<40 years: 4.65-18.1 ng/dL

40-<45 years: 4.46-17.1 ng/dL

45-<50 years: 4.26-16.4 ng/dL

50-<55 years: 4.06-15.6 ng/dL

55-<60 years: 3.87-14.7 ng/dL

60-<65 years: 3.67-13.9 ng/dL

65-<70 years: 3.47-13.0 ng/dL

70-<75 years: 3.28-12.2 ng/dL

75-<80 years: 3.08-11.3 ng/dL

80-<85 years: 2.88-10.5 ng/dL

85-<90 years: 2.69-9.61 ng/dL

90-<95 years: 2.49-8.76 ng/dL

95-100+ years: 2.29-7.91 ng/dL

Males (children):

<1 year: Term infants

1-15 days: 0.20-3.10 ng/dL\*

16 days-1 year: Values decrease gradually from newborn (0.20-3.10 ng/dL) to prepubertal levels

\*J Clin Endocrinol Metab 1973;36(6):1132-1142

1-8 years: <0.13 ng/dL

9 years: <0.13-0.45 ng/dL

10 years: <0.13-1.26 ng/dL

11 years: <0.13-5.52 ng/dL

12 years: <0.13-9.28 ng/dL

13 years: <0.13-12.6 ng/dL

14 years: 0.48-15.3 ng/dL

15 years: 1.62-17.7 ng/dL

16 years: 2.93-19.5 ng/dL

17 years: 4.28-20.9 ng/dL

18 years: 5.40-21.8 ng/dL

19 years: 5.36-21.2 ng/dL

Females (adult):

20-<25 years: <0.13-1.08 ng/dL

25-<30 years: <0.13-1.06 ng/dL

30-<35 years: <0.13-1.03 ng/dL

35-<40 years: <0.13-1.00 ng/dL

40-<45 years: <0.13-0.98 ng/dL

45-<50 years: <0.13-0.95 ng/dL

50-<55 years: <0.13-0.92 ng/dL

55-<60 years: <0.13-0.90 ng/dL

60-<65 years: <0.13-0.87 ng/dL

65-<70 years: <0.13-0.84 ng/dL

70-<75 years: <0.13-0.82 ng/dL

75-<80 years: <0.13-0.79 ng/dL

80-<85 years: <0.13-0.76 ng/dL

85-<90 years: <0.13-0.73 ng/dL

90-<95 years: <0.13-0.71 ng/dL

95-100+ years: <0.13-0.68 ng/dL

Females (children):

<1 year: Term infants

1-15 days: <0.13-0.25 ng/dL\*

16 days-1 year: Values decrease gradually from newborn (<0.13-0.25 ng/dL) to prepubertal levels

\*J Clin Endocrinol Metab, 36(6):1132-1142, 1973

1-4 years: <0.13 ng/dL

5 years: <0.13 ng/dL

6 years: <0.14 ng/dL

7 years: <0.13-0.23 ng/dL

8 years: <0.13-0.34 ng/dL  
9 years: <0.13-0.46 ng/dL  
10 years: <0.13-0.59 ng/dL  
11 years: <0.13-0.72 ng/dL  
12 years: <0.13-0.84 ng/dL  
13 years: <0.13-0.96 ng/dL  
14 years: <0.13-1.06 ng/dL  
15-18 years: <0.13-1.09 ng/dL  
19 years: <0.13-1.08 ng/dL

## TESTOSTERONE, TOTAL

### Males

0-5 months: 75-400 ng/dL  
6 months-9 years: <7-20 ng/dL  
10-11 years: <7-130 ng/dL  
12-13 years: <7-800 ng/dL  
14 years: <7-1,200 ng/dL  
15-16 years: 100-1,200 ng/dL  
17-18 years: 300-1,200 ng/dL  
> or =19 years: 240-950 ng/dL

### Tanner Stages\*

I (prepubertal): <7-20

II: 8-66

III: 26-800

IV: 85-1,200

V (young adult): 300-950

### Females

0-5 months: 20-80 ng/dL  
6 months-9 years: <7-20 ng/dL  
10-11 years: <7-44 ng/dL  
12-16 years: <7-75 ng/dL  
17-18 years: 20-75 ng/dL  
> or =19 years: 8-60 ng/dL

### Tanner Stages\*

I (prepubertal): <7-20

II: <7-47

III: 17-75

IV: 20-75

V (young adult): 12-60

## Specimen Requirements:

<b>Container/Tube:</b>	Red top (serum gel/SST are <b>not acceptable</b> )
<b>Submission Container/Tube</b>	Plastic vial
<b>Specimen Volume:</b>	2.5 mL

**Collection Instructions:** Centrifuge and aliquot serum into plastic vial

**Minimum Volume:** 1 mL

**Specimen Stability Information:**

Specimen Type	Temperature	Time
Serum Red	Refrigerated (Preferred)	14 days
	Frozen	60 days

**CPT Code:**

84402

84403

**Day(s) Performed:** Monday through Saturday    **Report Available:** 3 to 5 days

**Questions**

Contact Joshua Yang, Laboratory Technologist Resource Coordinator at 800-533-1710.