

Free and Bioavailable Testosterone in Adult Males – Testing Update

Effective Date: January 3, 2017

Effective January 3, 2017 testing for free and bioavailable testosterone in samples from adult males will be performed at Beaumont Laboratory in the Special Testing department. Previously, these were sent to reference laboratories as separate tests. In most cases, a total testosterone level alone is adequate for clinical decision-making. However, this test may aid in some cases where hormone binding proteins are altered. **Due to diurnal variation, it is recommended that the specimen should be collected between 6am and 10am.**

This test should be ordered only on male patients ages 18 and older and includes:

- Free and bioavailable testosterone (both calculated)
- Total testosterone by LC-MS/MS
- Measured albumin and sex hormone binding globulin (SHBG)

The calculations derived for adult males provide results consistent with free testosterone measured by equilibrium dialysis and bioavailable testosterone measured by differential precipitation.

Ordering Information:

- SOFT LIS Test Name: Testosterone, Free, Bioavail, Adult Male
- SOFT LIS Test Code: TESTM
- Epic Test Code: LAB7038

Specimen Requirements:

- One gold-top SST (minimum 4.0 mL whole blood) or one plain red-top tube.

Reference Ranges:

<u>Testosterone, Free</u>	<u>Testosterone, Bioavailable</u>
18 years: 5.4-21.8 ng/dL	18-19 years: not established
19 years: 5.4-21.2 ng/dL	20-29 years: 107-335 ng/dL
20 - <25 years: 5.2-20.7 ng/dL	30-39 years: 92-306 ng/dL
25 - <30 years: 5.0-19.8 ng/dL	40-49 years: 78-277 ng/dL
30 - <35 years: 4.8-19.0 ng/dL	50-59 years: 63-247 ng/dL
35 - <40 years: 4.6-18.1 ng/dL	60-69 years: 50-218 ng/dL
40 - <45 years: 4.5-17.1 ng/dL	> or =70 years: not established
45 - <50 years: 4.3-16.4 ng/dL	
50 - <55 years: 4.1-15.6 ng/dL	
55 - <60 years: 3.9-14.7 ng/dL	
60 - <65 years: 3.7-13.9 ng/dL	
65 - <70 years: 3.5-13.0 ng/dL	
70 - <75 years: 3.3-12.2 ng/dL	
75 - <80 years: 3.1-11.3 ng/dL	
80 - <85 years: 2.9-10.5 ng/dL	
85 - <90 years: 2.7- 9.6 ng/dL	
90 - <95 years: 2.5- 8.8 ng/dL	
95-100+ years: 2.3- 7.9 ng/dL	

If you have any questions, please contact Client Services (1-800-551-0488, option 5)

Internal URL to Laboratory Bulletins:

http://employee.beaumont.edu/portal/pls/portal/ip30dev.page_pkg.page?xid=lab_bulletins

External URL to Laboratory Bulletins:

<http://beaumontlaboratory.com/hospitals-laboratories-three/test-information-center/laboratory-bulletins/>

Laboratory Test Directory: <http://beaumontlaboratory.com/test-lab-directory>

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