

Testosterone, Total and Free, Serum

Test ID: TGRP

Explanation:

On the effective date, free testosterone will be performed with a new method that will result in changes in established reference ranges.

Current Method

Equilibrium Dialysis

New Method

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

Current Reference Range

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: <0.04-0.11 ng/dL
9 years: <0.04-0.45 ng/dL
10 years: <0.04-1.26 ng/dL

New Reference Range

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: <0.04-5.52 ng/dL
12 years: <0.04-9.28 ng/dL
13 years: <0.04-12.6 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: 0.06-1.08 ng/dL
25-<30 years: 0.06-1.06 ng/dL
30-<35 years: 0.06-1.03 ng/dL
35-<40 years: 0.06-1.00 ng/dL
40-<45 years: 0.06-0.98 ng/dL
45-<50 years: 0.06-0.95 ng/dL
50-<55 years: 0.06-0.92 ng/dL
55-<60 years: 0.06-0.90 ng/dL
60-<65 years: 0.06-0.87 ng/dL
65-<70 years: 0.06-0.84 ng/dL
70-<75 years: 0.06-0.82 ng/dL
75-<80 years: 0.06-0.79 ng/dL
80-<85 years: 0.06-0.76 ng/dL
85-<90 years: 0.06-0.73 ng/dL
90-<95 years: 0.06-0.71 ng/dL
95-100+ years: 0.06-0.68 ng/dL

Females (children):

<1 year: Term infants
1-15 days: 0.06-0.25 ng/dL*
16 days-1 year: Values decrease gradually from newborn (0.06-0.25 ng/dL) to prepubertal levels

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

1-4 years: <0.04 ng/dL
5 years: <0.04-0.07 ng/dL
6 years: <0.04-0.14 ng/dL
7 years: <0.04-0.23 ng/dL
8 years: <0.04-0.34 ng/dL
9 years: <0.04-0.46 ng/dL
10 years: <0.04-0.59 ng/dL
11 years: <0.04-0.72 ng/dL
12 years: <0.04-0.84 ng/dL
13 years: <0.04-0.96 ng/dL
14 years: <0.04-1.06 ng/dL
15-18 years: <0.04-1.09 ng/dL
19 years: 0.06-1.08 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

Questions

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