MAYO CLINIC LABORATORIES

TEST OBSOLETE

Notification Date: April 7, 2026
Effective Date: April 9, 2026

Insulin-Like Growth Factor 1 and Insulin-Like Growth Factor-Binding Protein 3 Growth Panel, Serum

Test ID: IGFGP

Explanation:
Due to a methodology change, IGFGP will become obsolete on the effective date.

Note: The referral test FIGF1 will continue to be orderable for 30 days after the effective date.

Recommended Alternative Test:

Insulin-Like Growth Factor 1 and Insulin-Like Growth Factor Binding Protein 3 Growth Panel, Serum

Test ID: IGFPN

Methodology:
IGF1S: Chemiluminescence
IGFB3: Enzyme-Labeled Chemiluminescent Immunometric Assay

Reference Values:
INSULIN-LIKE GROWTH FACTOR 1
Male:
<1 year: 27.0-157.0 ng/mL
1 year: 29.7-166.8 ng/mL
2 years: 33.9-183.9 ng/mL
3 years: 39.0-204.5 ng/mL
4 years: 44.3-225.0 ng/mL
5 years: 50.0-245.5 ng/mL
6 years: 56.2-267.1 ng/mL
7 years: 63.4-291.9 ng/mL
8 years: 72.4-323.1 ng/mL
9 years: 83.6-361.6 ng/mL
10 years: 96.9-406.6 ng/mL

11 years: 111.6-454.4 ng/mL
12 years: 126.1-498.7 ng/mL
13 years: 138.6-532.5 ng/mL
14 years: 147.5-551.2 ng/mL
15 years: 152.2-553.5 ng/mL
16 years: 152.9-541.8 ng/mL
17 years: 150.6-520.6 ng/mL
18 years: 146.2-493.6 ng/mL
19 years: 140.2-462.7 ng/mL
20 years: 133.1-430.0 ng/mL
21-25 years: 115.2-354.8 ng/mL
26-30 years: 97.9-281.6 ng/mL
31-35 years: 88.3- 246.0 ng/mL
36-40 years: 83.4-232.7 ng/mL
41-45 years: 74.9-216.4 ng/mL
46-50 years: 66.9-205.1 ng/mL
51-55 years: 60.6-200.3 ng/mL
56-60 years: 54.3-194.2 ng/mL
61-65 years: 48.8-187.7 ng/mL
66-70 years: 46.5-191.9 ng/mL
71-75 years: 40.9-179.2 ng/mL
76-80 years: 37.1-172.0 ng/mL
81-85 years: 33.8-165.4 ng/mL
86-90 years: 32.2-166.1 ng/mL

Females:
<1 year: 17.9-125.6 ng/mL
1 year: 19.5-132.3 ng/mL
2 years: 22.2-145.4 ng/mL
3 years: 25.9-164.2 ng/mL
4 years: 30.7-187.8 ng/mL
5 years: 36.2-214.4 ng/mL
6 years: 42.0-240.4 ng/mL
7 years: 48.6-269.6 ng/mL
8 years: 56.9-305.3 ng/mL
9 years: 67.2-349.4 ng/mL
10 years: 79.5-400.3 ng/mL
11 years: 92.6-452.6 ng/mL
12 years: 105.3- 499.1 ng/mL
13 years: 115.9-533.4 ng/mL
14 years: 123.4-552.0 ng/mL
15 years: 127.4-554.2 ng/mL
16 years: 127.9-541.5 ng/mL
17 years: 125.3-517.3 ng/mL
18 years: 120.5-485.8 ng/mL
19 years: 114.4-450.8 ng/mL
20 years: 107.8-416.0 ng/mL
21-25 years: 92.9-342.0 ng/mL

26-30 years: 78.4-270.0 ng/mL
31-35 years: 73.1-243.0 ng/mL
36-40 years: 69.0-227.0 ng/mL
41-45 years: 61.5-204.4 ng/mL
46-50 years: 56.8-194.5 ng/mL
51-55 years: 53.0-189.6 ng/mL
56-60 years: 45.6-172.4 ng/mL
61-65 years: 42.2-169.0 ng/mL
66-70 years: 38.3-162.5 ng/mL
71-75 years: 36.6-164.7 ng/mL
76-80 years: 34.7-164.8 ng/mL
81-85 years: 34.4-172.4 ng/mL
86-90 years: 33.6-177.8 ng/mL

Tanner stage reference intervals:
Males:
I : 81.3-255.3 ng/mL
II: 106.2-432.3 ng/mL
III: 244.9-511.4 ng/mL
IV: 222.6-577.7 ng/mL
V: 227.4-517.8 ng/mL
Females:
I: 85.9-323.0 ng/mL
II: 117.5-451.3 ng/mL
III: 258.3-528.5 ng/mL
IV: 224.2-585.8 ng/mL
V: 188.2-511.6 ng/mL

Tanner Stage reference source: Bindlingmaier M, Friedrich N, Emeny RT,et al. Reference intervals for insulin-like growth factor-1 (IGF-1) from birth to senescence: results from a multicenter study using a new automated chemiluminescence IGF-I immunoassay conforming to recent international recommendations. J Clin Endocrinol Metab. 2014;99(5):1712-1721

Note: Puberty onset (transition from Tanner stage I to Tanner stage II) occurs for boys at a median age of 11.5 (+/-2) years and for girls at a median age of 10.5 (+/-2) years. There is evidence that it may occur up to 1 year earlier in obese girls and in African American girls. For boys, there is no definite proven relationship between puberty onset and body weight or ethnic origin. Progression through Tanner stages is variable. Tanner stage V (young adult) should be reached by age 18.

INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 3
1-7 days: < or =0.7 mcg/mL
8-14 days: 0.5-1.4 mcg/mL
15 days-11 months: Unavailable
1 year: 0.7-3.6 mcg/mL
2 years: 0.8-3.9 mcg/mL
3 years: 0.9-4.3 mcg/mL
4 years: 1.0-4.7 mcg/mL
5 years: 1.1-5.2 mcg/mL

6 years: 1.3-5.6 mcg/mL
7 years: 1.4-6.1 mcg/mL
8 years: 1.6-6.5 mcg/mL
9 years: 1.8-7.1 mcg/mL
10 years: 2.1-7.7 mcg/mL
11 years: 2.4-8.4 mcg/mL
12 years: 2.7-8.9 mcg/mL
13 years: 3.1-9.5 mcg/mL
14 years: 3.3-10 mcg/mL
15 years: 3.5-10 mcg/mL
16 years: 3.4-9.5 mcg/mL
17 years: 3.2-8.7 mcg/mL
18 years: 3.1-7.9 mcg/mL
19 years: 2.9-7.3 mcg/mL
20 years: 2.9-7.2 mcg/mL
21-25 years: 3.4-7.8 mcg/mL
26-30 years: 3.5-7.6 mcg/mL
31-35 years: 3.5-7.0 mcg/mL
36-40 years: 3.4-6.7 mcg/mL
41-45 years: 3.3-6.6 mcg/mL
46-50 years: 3.3-6.7 mcg/mL
51-55 years: 3.4-6.8 mcg/mL
56-60 years: 3.4-6.9 mcg/mL
61-65 years: 3.2-6.6 mcg/mL
66-70 years: 3.0-6.2 mcg/mL
71-75 years: 2.8-5.7 mcg/mL
76-80 years: 2.5-5.1 mcg/mL
81-85 years: 2.2-4.5 mcg/mL

Tanner Stages:
Males
Stage I: 1.4-5.2 mcg/mL
Stage II: 2.3-6.3 mcg/mL
Stage III: 3.1-8.9 mcg/mL
Stage IV: 3.7-8.7 mcg/mL
Stage V: 2.6-8.6 mcg/mL

Females
Stage I: 1.2-6.4 mcg/mL
Stage II: 2.8-6.9 mcg/mL
Stage III: 3.9-9.4 mcg/mL
Stage IV: 3.3-8.1 mcg/mL
Stage V: 2.7-9.1 mcg/mL

Note: Puberty onset (transition from Tanner stage I to Tanner stage II) occurs for boys at a median age of 11.5 (+/-2) years and for girls at a median age of 10.5 (+/-2) years. There is evidence that it may occur up to 1 year earlier in obese girls and in African American girls. By contrast, for boys there is no definite proven relationship

between puberty onset and body weight or ethnic origin. Progression through Tanner stages is variable. Tanner stage V (young adult) should be reached by age 18.

Specimen Requirements:

Patient Preparation:	For 12 hours before specimen collection, patient **should not** take multivitamins or dietary supplements (eg, hair, skin, and nail supplements) containing biotin (vitamin B7).
Preferred:	Red top
Acceptable:	Serum gel
Submission Container/Tube	2 Plastic Vials
Specimen Volume:	1.6 mL Serum
Collection Instructions:	Centrifuge and aliquot serum into 2 plastic vials, each containing 0.8 mL of serum.
Minimum Volume:	0.5 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Frozen (Preferred)	14 days
	Ambient	72 hours
	Refrigerated	72 hours

CPT Code:

83520
84305

Day(s) Performed: Monday - Friday **Report Available:** 1 to 3 days

Questions

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