MAYO CLINIC LABORATORIES

TEST OBSOLETE

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

Insulin-Like Growth Factor-1, Mass Spectrometry, Serum

Test ID: IGFMS

Explanation:
Due to a methodology change, IGFMS 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, Serum

Test ID: IGF1S

Methodology:
Chemiluminescence Immunoassay

Reference Values:
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.

Specimen Requirements:

Specimen 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).
Supplies:	Sarstedt Aliquot Tube, 5 mL (T914)
Preferred:	Red Top
Acceptable:	Serum gel
Specimen Volume:	0.8 mL
Collection Instructions:	Centrifuge and aliquot serum into a plastic vial.
Minimum Volume:	0.5 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	90 days
	Ambient	7 days
	Refrigerated	7 days

CPT Code:
84305

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

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