Test Definition: IGFG

Insulin-Like Growth Factor 1 (IGF-1) and Insulin-Like Growth Factor Binding Protein 3 (IGFBP-3) Growth Panel

Reporting Title: IGF-1 and IGFBP-3 Growth Panel
Performing Location: Rochester

Specimen Requirements:

Collection Container/Tube:
Preferred: Red top
Acceptable: Serum gel
Submission Container/Tube: Plastic vial
Specimen Volume: 1 mL
Collection Instructions: Spin down promptly. Aliquot into 2 equal portions.
Additional Information: Indicate patient's age and sex.

Specimen Type	Temperature	Time
Serum	Frozen	14 days

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
IGF1I	Insulin-Like Growth Factor 1, S **Also used by tests: IGF1I**	Numeric	ng/mL	2484-4
IGFB3	IGFBP-3, S **Also used by tests: IGFB3**	Numeric	mcg/mL	2483-6

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
IGF1I	Insulin-Like Growth Factor 1, S	1	84305	Yes	Yes
IGFB3	IGFBP-3, S	1	83520	Yes	Yes

Reference Values:

INSULIN-LIKE GROWTH FACTOR 1
Males:

Age	ng/mL	0.1 Percentile (ng/mL)
0-11 months	15-150	3
1 year	18-179	4
2 years	22-204	5
3 years	25-224	6
4 years	28-241	8
5 years	32-259	9
6 years	36-281	11
7 years	42-311	13
8 years	49-351	16
9 years	58-401	19
10 years	70-458	24
11 years	82-516	29
12 years	93-567	35
13 years	103-603	41
14 years	111-620	46
15 years	115-618	50
16 years	115-598	52
17 years	113-566	54
18 years	109-527	
19 years	104-484	
20 years	98-443	
21-25 years	83-344	
26-30 years	75-275	
31-35 years	71-241	
36-40 years	69-226	
41-45 years	64-210	
46-50 years	59-201	
51-55 years	56-201	

56-60 years	51-194	
61-65 years	47-191	
66-70 years	46-195	
71-75 years	42-187	
76-80 years	39-184	
80-85 years	37-182	
85-90 years	35-182	

Females:

Age	ng/mL	0.1 Percentile (ng/mL)
0-11 months	18-146	5
1 year	20-159	6
2 years	23-177	7
3 years	27-198	8
4 years	32-223	10
5 years	36-246	12
6 years	41-269	15
7 years	48-299	17
8 years	56-339	21
9 years	68-396	26
10 years	83-465	32
11 years	99-537	40
12 years	115-598	48
13 years	126-637	56
14 years	133-647	62
15 years	134-631	65
16 years	130-595	66
17 years	123-546	64
18 years	114-493	
19 years	105-441	
20 years	97-398	
21-25 years	84-323	

26-30 years	77-271	
31-35 years	73-244	
36-40 years	68-225	
41-45 years	62-205	
46-50 years	56-194	
51-55 years	53-191	
56-60 years	45-173	
61-65 years	41-168	
66-70 years	39-168	
71-75 years	36-166	
76-80 years	35-168	
80-85 years	35-179	
85-90 years	33-179	

Reference values have not been established for patients that are >90 years of age.

IGF-1 reference values according to Tanner stages I-V(2)
Males
Stage I: 83-255 ng/mL
Stage II: 114-440 ng/mL
Stage III: 236-516 ng/mL
Stage IV: 218-580 ng/mL
Stage V: 229-522 ng/mL
Females
Stage I: 90-324 ng/mL
Stage II: 104-456 ng/mL
Stage III: 249-519 ng/mL
Stage IV: 238-574 ng/mL
Stage V: 187-509 ng/mL

Note: Puberty onset, ie the transition from Tanner stage 1 (prepubertal) to Tanner stage 2 (early pubertal), occurs for girls at a median age of 10.5 (+/-2) years and for boys at a median age of 11.5 (+/-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 5 (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: 1.2-6.4 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
Females
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

Note: Puberty onset, ie the transition from Tanner stage 1 (prepubertal) to Tanner stage 2 (early pubertal), occurs for girls at a median age of 10.5 (+/-2) years and for boys at a median age of 11.5 (+/-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 5 (young adult) should be reached by age 18.