

**Reporting Title:** IGF-1, LC/MS, S**Performing Location:** Rochester**Necessary Information:**

Indicate patient's age and sex.

**Specimen Requirements:**

Collection Container/Tube:

Preferred: Red top

Acceptable: Serum gel

Submission Container/Tube: Plastic vial

Specimen Volume: 0.5 mL

Collection Instructions: Centrifuge and aliquot serum into a plastic vial.

**Specimen Minimum Volume:**

0.3 mL

**Forms:**

If not ordering electronically, complete, print, and send a General Request (T239) with the specimen.

Specimen Type	Temperature	Time	Special Container
Serum	Frozen (preferred)	28 days	
	Ambient	72 hours	
	Refrigerated	72 hours	

**Result Codes:**

Result ID	Reporting Name	Type	Unit	LOINC®
62750	IGF-1, LC/MS, S	Numeric	ng/mL	2484-4
35781	Z-score	Numeric	SD	73561-3

LOINC and CPT codes are provided by the performing laboratory.

**Supplemental Report:**

No

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**CPT Code Information:**

84305

**Reference Values:****Males:**

0-11 months: 18-156 ng/mL  
1 year: 14-203 ng/mL  
2 years: 16-222 ng/mL  
3 years: 22-229 ng/mL  
4 years: 30-236 ng/mL  
5 years: 39-250 ng/mL  
6 years: 47-275 ng/mL  
7 years: 54-312 ng/mL  
8 years: 61-356 ng/mL  
9 years: 67-405 ng/mL  
10 years: 73-456 ng/mL  
11 years: 79-506 ng/mL  
12 years: 84-551 ng/mL  
13 years: 90-589 ng/mL  
14 years: 95-618 ng/mL  
15 years: 99-633 ng/mL  
16 years: 104-633 ng/mL  
17 years: 107-615 ng/mL  
18-22 years: 91-442 ng/mL  
23-25 years: 66-346 ng/mL  
26-30 years: 60-329 ng/mL  
31-35 years: 54-310 ng/mL  
36-40 years: 48-292 ng/mL  
41-45 years: 44-275 ng/mL  
46-50 years: 40-259 ng/mL  
51-55 years: 37-245 ng/mL  
56-60 years: 34-232 ng/mL  
61-65 years: 33-220 ng/mL  
66-70 years: 32-209 ng/mL  
71-75 years: 32-200 ng/mL  
76-80 years: 33-192 ng/mL  
81-85 years: 33-185 ng/mL  
86-90 years: 33-179 ng/mL  
> or =91 years: 32-173 ng/mL

**Females:**

0-11 months: 14-192 ng/mL  
1 year: 23-243 ng/mL  
2 years: 28-256 ng/mL  
3 years: 31-249 ng/mL  
4 years: 33-237 ng/mL  
5 years: 36-234 ng/mL



6 years: 39-246 ng/mL  
7 years: 44-279 ng/mL  
8 years: 51-334 ng/mL  
9 years: 61-408 ng/mL  
10 years: 73-495 ng/mL  
11 years: 88-585 ng/mL  
12 years: 104-665 ng/mL  
13 years: 120-719 ng/mL  
14 years: 136-729 ng/mL  
15 years: 147-691 ng/mL  
16 years: 153-611 ng/mL  
17 years: 149-509 ng/mL  
18-22 years: 85-370 ng/mL  
23-25 years: 73-320 ng/mL  
26-30 years: 66-303 ng/mL  
31-35 years: 59-279 ng/mL  
36-40 years: 54-258 ng/mL  
41-45 years: 49-240 ng/mL  
46-50 years: 44-227 ng/mL  
51-55 years: 40-217 ng/mL  
56-60 years: 37-208 ng/mL  
61-65 years: 35-201 ng/mL  
66-70 years: 34-194 ng/mL  
71-75 years: 34-187 ng/mL  
76-80 years: 34-182 ng/mL  
81-85 years: 34-177 ng/mL  
86-90 years: 33-175 ng/mL  
> or =91 years: 25-179 ng/mL

Tanner Stage reference ranges:

Males

Stage I: 81-255 ng/mL  
Stage II: 106-432 ng/mL  
Stage III: 245-511 ng/mL  
Stage IV: 223-578 ng/mL  
Stage V: 227-518 ng/mL

Females

Stage I: 86-323 ng/mL  
Stage II: 118-451 ng/mL  
Stage III: 258-529 ng/mL  
Stage IV: 224-586 ng/mL  
Stage V: 188-512 ng/mL

Tanner Stage reference source: Bindlingmaier M, Friedrich N, Emeny RT, et al. Reference intervals for insulin-like growth factor-1 (igf-i) 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



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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.