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**Lab Dept:** Chemistry

**Test Name:** IGF-1 (SOMATOMEDIN C)

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***General Information***

**Lab Order Codes:** INFG1

**Synonyms:** Somatomedin C, Insulin-like Growth Factor-1, IGF-1; IGF1

**CPT Codes:** 84305 - Somatomedin

**Test Includes:** N/A

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***Logistics***

**Test Indications:** For the determination of growth disorders and in monitoring accordingly.

**Lab Testing Sections:** Chemistry – (performed on Minneapolis Campus)

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** Performed daily

**Special Instructions:** N/A

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***Specimen***

**Specimen Type:** Blood

**Container:** Red NO GEL (preferred)  
Alternate: Green NO GEL

**Draw Volume:** 1.8 mL (Minimum: 0.6 mL) blood

**Processed Volume:** 0.6 mL (Minimum: 0.2 mL) serum

**Note:** Submission of minimum volume does not allow repeat analysis

**Collection:** Routine blood collection

**Special Processing:** Lab Staff: Centrifuge specimen as soon as possible after draw, or within 1 hour of draw, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at frozen temperatures. Forward promptly.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimens; samples exceeding stability limits

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***Interpretive***

**Reference Range:**

| <b>Age</b>    | <b>Male (ng/mL)</b> | <b>Female (ng/mL)</b> |
|---------------|---------------------|-----------------------|
| 0 - 11 months | 27 – 166            | 18 - 130              |
| 1 year        | 30 - 175            | 20 - 138              |
| 2 years       | 34 - 194            | 22 - 154              |
| 3 years       | 39 - 215            | 26 - 175              |
| 4 years       | 44 - 235            | 31 - 201              |
| 5 years       | 50 - 256            | 36 - 227              |
| 6 years       | 56 - 279            | 42 - 254              |
| 7 years       | 63 - 306            | 49 - 286              |
| 8 years       | 72 – 341            | 57 - 326              |
| 9 years       | 84 - 384            | 67 - 374              |
| 10 years      | 97 – 431            | 80 - 427              |
| 11 years      | 112 - 477           | 93 - 477              |
| 12 years      | 126 - 517           | 105 - 518             |
| 13 years      | 139 – 544           | 116 - 545             |
| 14 years      | 148 – 554           | 123 - 555             |
| 15 years      | 152 – 554           | 127 - 554             |
| 16 years      | 152 - 542           | 127 - 542             |

|               |           |           |
|---------------|-----------|-----------|
| 17 years      | 149 – 521 | 123 - 517 |
| 18 years      | 143 – 494 | 118 - 486 |
| 19 years      | 137 – 463 | 111 - 451 |
| 20 years      | 129 – 430 | 105 - 416 |
| 21 – 25 years | 106 - 414 | 86 - 383  |
| 25 – 35 years | 86 - 309  | 70 - 296  |
|               |           |           |
| Tanner Stages | Male      | Female    |
| I             | 81 - 255  | 86 - 323  |
| II            | 106 - 432 | 118 - 451 |
| III           | 245 – 511 | 258 - 529 |
| IV            | 223 - 578 | 224 - 586 |
| V             | 227 - 518 | 118 - 512 |

**Critical Values:**

N/A

**Limitations:**

This method is affected by supplemental biotin. Unexpected results or results that do not match clinical presentation should be repeated at least 24 hours after the last dose of supplemented biotin, which includes multivitamins.

Heterophilic antibodies in the serum of patient routinely exposed to animals or animal products interfere with immunoassays and anomalous values may be observed.

**Methodology:**

Chemiluminescence, including incubation with acid solution to dissociate IGF-1 from the binding protein.

**References:**

IGF-1 Instructions for Use, IDS, Sys REF IS-3900 v07, 17 Aug 2017

**Updates:**

12/20/2017: Updated reference ranges  
6/19/2017: New test method: inhouse