IGF-1

Synonyms	Insulin-like Growth Factor-1
Clinical Indication	IGF-1 is a peptide hormone that regulates cell growth and development. IGF-1 levels are controlled by the pulsatile release of growth hormone from the pituitary. IGF-1 levels reflect those of overall growth hormone production. IGF-1 is a good marker of growth hormone production as levels of IGF1 remain constant throughout the day. Random growth hormone measurements are of limited value as they fluctuate throughout the day. Acromegaly results from persistent hypersecretion of GH. An elevated IGF-1 in a patient with the appropriate clinical picture is diagnostic Growth hormone deficiency can give rise to short stature/ dwarfism. Low IGF-1 levels along with other clinical findings are diagnostic. IGF-1 levels can be used to help assess pituitary function.
Part of Profile / See Also	
Request Form	Combined Pathology manual Blood form or ICE request
Availability / Frequency of Analysis	On request.
Turnaround Time	One week.
Patient Preparation	None required

Sample Requirements

    Specimen Type   Serum or plasma

    Volume   2 ml (600µl in paediactric tubes)

    Container

 Gold-top (SST) tube

Or

 Green-top (lithium heparin) tube

Paediatric tubes

 Paediactric green-top (lithium heparin) tube

Or

Paediatric orange-top (lithium heparin) tube

May be advisable to send more than one paediatric tube if other tests required.

Plain serum tubes may also be used

Reference Range & Units						
	IGF-1	**Paediactric reference ranges**		Units: nmol/L		
	Age			Reference range		
	From	To		From	To	
	0	3	Male	<2.0	16.8	
	4	6	Male	2.9	27.0	
	7	9	Male	5.2	33.2	
	10	11	Male	9.0	41.1	
	12	13	Male	18.6	65.8	
	14	15	Male	23.0	65.9	
	16	18	Male	22.5	53.8	
	0	3	Female	2.3	22.4	
	4	6	Female	4.6	30.2	
	7	9	Female	7.4	36.0	
	10	11	Female	15.3	58.2	
	12	13	Female	22.1	68.5	
	14	15	Female	24.8	64.5	
	16	18	Female	24.7	55.8	
	IGF-1	**Adult reference ranges**		Units: nmol/L		
				Reference range		
	19	21	Adult	15.2	42.0	
	22	24	Adult	12.9	37.6	
	25	29	Adult	10.9	33.7	
	30	34	Adult	9.2	30.4	
	35	39	Adult	8.2	29.0	
	40	44	Adult	7.5	28.5	
	45	49	Adult	6.9	28.0	
	50	54	Adult	6.2	27.2	
	55	59	Adult	5.9	27.3	
	60	64	Adult	5.6	28.6	
	65	69	Adult	5.2	29.3	
	70	79	Adult	4.6	28.1	
	80	90	Adult	4.0	27.0	

Interferences

Interpretation & Clinical

Decision Value (if applicable)

References

Test code	IGF1
Lab Handling	Aliquot and freeze at -20°C.