

LABORATORY 3427-3420 23 WALTERS DRIVE OSBORNE PARK WA 6017 PH: 08 9442 7444

PATIENT:

MR JONATHAN MARSH  
C/O IMEDICAL 1 UNION ST  
PYRMONT NSW 2009  
PH: 0409346959  
DOB: 27/07/1973 SEX: MALE  
UR#: REF:

REQUEST DETAILS:

LAB REF: 24-86323787-IGF-0  
REFERRED: 16/02/24  
COLLECTED: 20/02/2024 NS  
REPORTED: 23/02/24 08:42  
TESTED: 20/02/24  
BATCH: 0 0

IMEDICAL LIFE

IMEDICAL LIFE  
1 UNION ST  
PYRMONT NSW 2009

CLINICAL HISTORY:

BIOCHEMISTRY

INSULIN-LIKE GROWTH FACTOR -1

SPECIMEN: SERUM

Date	Time	Lab No.	IGF-1	Units	Ref. Range
20/02/24	NS	86323787	17.9	nmol/L	(6.3 - 27.2)

IGF1 test was performed on Siemens Immulite XPI.  
As of 17/01/2018, revised and validated Age specific Reference Ranges  
apply (from Siemens Ref. IMC 18-November 2017).

Validated by Dr. Mirette Saad

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PATIENT: MR JONATHAN MARSH

ALL TESTS COMPLETE

PANEL CODES: GLS-R,GH-R,SCR-R,DHE-R,IGF-R,FAI-R,FBE-R,LFH-R,OST-R,PRG-R,PRL-R,IS-R+++

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<b>PATIENT:</b> <b>MR JONATHAN MARSH</b> C/O IMEDICAL 1 UNION ST PYRMONT NSW 2009 PH: 0409346959 DOB: 27/07/1973      SEX: MALE UR#:                      REF:	<b>REQUEST DETAILS:</b> <b>LAB REF: 24-86323787-GH-0</b> REFERRED: 16/02/24 COLLECTED: 20/02/2024 NS REPORTED: 22/02/24 17:52 TESTED: 20/02/24 BATCH: 0                      0	<b>IMEDICAL LIFE</b>  IMEDICAL LIFE 1 UNION ST PYRMONT NSW 2009
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CLINICAL HISTORY:

HORMONE STUDIES

SPECIMEN: Serum

Date	Time	Request	Growth Hormone
20/02/2024	NS	24-86323787	0.2
Units			µg/L
Reference Ranges			< 5.0

Comments:

**COMMENT:** Growth Hormone (GH) results are now Standardised to the recombinant 2nd IS 98/574 Standard. In accordance with international guidelines, GH will be reported in mass Units µg/L. Conversion factor µg/L x 3.0 = mIU/L (98/574) Standard.

ENDOCRINOLOGY

PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-R,GH-R,SCR-R,DHE-R,IGF-W,FAI-R,FBE-R,LFH-R,OST-R,PRG-R,PRL-R,IS-R+++

LABORATORY 20102-2906 23 WALTERS DRIVE OSBORNE PARK WA 6017 PH: 08 9442 7444		
<b>PATIENT:</b> MR JONATHAN MARSH C/O IMEDICAL 1 UNION ST PYRMONT NSW 2009 PH: 0409346959 DOB: 27/07/1973      SEX: MALE UR#:                      REF:	<b>REQUEST DETAILS:</b> LAB REF: 24-86323787-TMA-0 REFERRED: 16/02/24 COLLECTED: 20/02/2024 NS REPORTED: 20/02/24 21:57 TESTED: 20/02/24 BATCH: 0                      0	<b>IMEDICAL LIFE</b>  IMEDICAL LIFE 1 UNION ST PYRMONT NSW 2009

CLINICAL HISTORY:

THYROID FUNCTION TEST

SPECIMEN: Serum

Date	20/02/2024
Collection Time	NS
Request	24-86323787

		Units	Reference Range
Free thyroxine (FT4)	15.8	pmol/L	9.0 - 20.0
Thyroid Stimulating Hormone	2.19	mIU/L	0.40 - 4.00
Free Tri-iodothyronine (FT3)	5.0	pmol/L	3.5 - 6.5

Comments:

ENDOCRINOLOGY

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CLINICAL HISTORY:

ENDOCRINOLOGY

SPECIMEN: SERUM

HORMONE STUDIES

Follicle Stimulating Hormone	3 IU/L	( 2 - 18 )
Luteinizing Hormone	3 IU/L	( < 6 )
Oestradiol	< 100 pmol/L	( < 150 )
Progesterone	1 nmol/L	( < 5 )
Prolactin (mIU/L)	93 mIU/L	( 45 - 375 )

ENDOCRINOLOGY

PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-R,GH-W,SCR-R,DHE-R,IGF-W,FAI-R,FBE-R,LFH-R,OST-R,PRG-R,PRL-R,IS-R+++

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CLINICAL HISTORY:

ANDROGEN STUDIES SPECIMEN: Serum

Date	20/02/2024
Collection Time	NS
Request	24-86323787

		Units	Reference Range
Testosterone	11.6	nmol/L	6.0 - 28.0
SHBG re-std.	21	nmol/L	15 - 50
Free Testosterone	292	pmol/L	200 - 600

Comments:

ENDOCRINOLOGY

PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-R,GH-W,SCR-R,DHE-R,IGF-W,FAI-R,FBE-R,LFH-W,OST-W,PRG-W,PRL-W,IS-R+++

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CLINICAL HISTORY:

GENERAL CHEMISTRY SPECIMEN: Serum

<b>Date</b>	20/02/2024
<b>Collection Time</b>	NS
<b>Request</b>	24-86323787

Electrolytes / Renal Function		Units	Reference Range
Sodium	140	mmol/L	135 - 145
Potassium	4.5	mmol/L	3.5 - 5.2
Chloride	104	mmol/L	95 - 110
Bicarbonate	27	mmol/L	22 - 32
Anion Gap	14	mmol/L	9 - 19
Urea	4.7	mmol/L	4.0 - 9.0
Creatinine	72	µmol/L	60 - 110
eGFR	> 90	mL/min/1.73m <sup>2</sup>	> 59
Calcium	2.45	mmol/L	2.10 - 2.60
Adjusted Calcium	2.40	mmol/L	2.10 - 2.60
Phosphate	1.15	mmol/L	0.75 - 1.50
Magnesium	0.85	mmol/L	0.70 - 1.10
Uric Acid	0.35	mmol/L	0.21 - 0.43

Liver Function		Units	Reference Range
Total Protein	69	g/L	60 - 80
Albumin	43	g/L	35 - 50
Alkaline Phosphatase	70	U/L	30 - 110
Total Bilirubin	14	µmol/L	3 - 20
Gamma GT	26	U/L	5 - 50
AST	29	U/L	5 - 35
ALT	39	U/L	5 - 40
Globulin	26	g/L	23 - 39

**Comments:**  
Electrolytes, uric acid, renal and liver function tests are within reference range.

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CLINICAL HISTORY:

**ENDOCRINOLOGY**

**CORTISOL STUDIES**

**SPECIMEN: SERUM/PLASMA/URINE**

Coll. Date:	20/02/24		
Coll. Time:	NS	Ref.	
Lab Number:	86323787	Range	Units
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Serum Cortisol	456	See below	nmol/L
Reference Ranges:	AM 110 - 550 nmol/L		
	PM 70 - 400 nmol/L		

86323787 Early morning cortisol greater than 360 nmol/L measured on the Centaur assay makes adrenal insufficiency unlikely. Cortisol measured on the Siemens Centaur.

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PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-R,GH-W,SCR-R,DHE-R,IGF-W,FAI-W,FBE-R,LFH-W,OST-W,PRG-W,PRL-W,IS-R+++

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	LAB REF: 24-86323787-DHE-0 REFERRED: 16/02/24 COLLECTED: 20/02/2024 NS REPORTED: 20/02/24 16:35 TESTED: 20/02/24 BATCH: 0                      0	

CLINICAL HISTORY:

DHEA SULPHATE SPECIMEN: Serum

Date	Time	Request	DHEA-Sulphate
20/02/2024	NS	24-86323787	7.4
Units			µmol/L
Reference Ranges			2.2 - 15.2

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CLINICAL HISTORY:

LIPID STUDIES SPECIMEN: Serum

Date	20/02/2024
Collection Time	NS
Request	24-86323787

		Units	Desirable Range (Fasting)
Fasting status	Not Stated		
Cholesterol	4.1	mmol/L	< 5.6
H.D.L. Cholesterol	1.6	mmol/L	> 0.9
L.D.L. Cholesterol	2.1	mmol/L	< 3.1
Non-HDL Cholesterol	2.5	mmol/L	< 4.1
Triglyceride	0.9	mmol/L	< 2.1
LDL/HDL Ratio (Risk Factor)	1.3		
Chol/HDL Ratio (Risk Factor)	2.6		

**Comments:**

The Heart Foundation of Australia recommend calculation of the absolute cardiovascular risk using the NVDPA's calculator at [www.cvdcheck.org.au](http://www.cvdcheck.org.au). LDL-c target depends on the absolute CVD risk.

Recommended targets for high risk patients are

Total cholesterol < 4.0 mmol/L

HDL Cholesterol > 1.0 mmol/L

LDL Cholesterol < 2.5 mmol/L ( < 1.8 mmol/L for very high risk) Non-HDL Cholesterol < 3.3 mmol/L ( < 2.5 mmol/L for very high risk) Fasting triglycerides < 2.0 mmol/L

Lipid ranges and targets are from the AACB Guideline for Harmonised Lipid Reporting (2018)

Target values need to be individualised based on clinical assessment of overall risk.

See the AusCVD Risk calculator at [www.cvdcheck.org.au](http://www.cvdcheck.org.au)

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CLINICAL HISTORY:

IRON STUDIES SPECIMEN: Serum

Date	20/02/2024
Collection Time	NS
Request	24-86323787

		Units	Reference Range
Iron	16.3	µmol/L	10.0 - 30.0
Transferrin	2.39	g/L	2.10 - 3.80
Transferrin Saturation	27	%	15 - 50
Ferritin	242	µg/L	30 - 500

Comments:

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<b>PATIENT:</b> <b>MR JONATHAN MARSH</b> C/O IMEDICAL 1 UNION ST PYRMONT NSW 2009 PH: 0409346959 DOB: 27/07/1973      SEX: MALE UR#:                      REF:	<b>REQUEST DETAILS:</b> <b>LAB REF: 24-86323787-GLS-0</b> REFERRED: 16/02/24 COLLECTED: 20/02/2024 NS REPORTED: 20/02/24 16:08 TESTED: 20/02/24 BATCH: 0                      0	<b>IMEDICAL LIFE</b>  IMEDICAL LIFE 1 UNION ST PYRMONT NSW 2009

CLINICAL HISTORY:

GLUCOSE SPECIMEN: Serum

Date	20/02/2024
Collection Time	NS
Request	24-86323787

		Units	Reference Range
Glucose Time	NS		
Collection type	Not stated		
Glucose	5.1	mmol/L	3.0 - 6.9

**Comments:**  
Glucose Reference Ranges  
Random                      3.0 - 6.9 mmol/L  
Fasting                      3.0 - 5.4 mmol/L  
1 Hour post prandial      3.0 - 11.0 mmol/L  
2 Hour post prandial      3.0 - 7.7 mmol/L  
Specimen Legend:  
FI-ox = Fluoride oxalate, serum = Serum, np = Non-Preserved

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CLINICAL HISTORY:

BIOCHEMISTRY

C REACTIVE PROTEIN (hsCRP)

SPECIMEN: SERUM

hsCRP                      0.4                      mg/L                      see below

For assessment of cardiovascular risk in the WELL individual see the following table (Reference: American Heart Association)

CRP (mg/L)	Relative Risk.
< 1.0	Low risk
1.0 - 3.0	Average risk
> 3.0	High risk

PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-W,GH-W,SCR-R,DHE-W,IGF-W,FAI-W,FBE-R,LFH-W,OST-W,PRG-W,PRL-W,IS-W+++

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CLINICAL HISTORY:

GENERAL HAEMATOLOGY **SPECIMEN: Whole blood**

<b>Date</b>	20/02/2024
<b>Collection Time</b>	NS
<b>Request</b>	24-86323787

		Units	Reference Range	H A E M A T O L O G Y
Haemoglobin	142	g/L	125 - 175	
RBC	4.58	x10 <sup>12</sup> /L	4.50 - 6.50	
HCT	0.40		0.40 - 0.55	
MCV	88	fL	80 - 99	
MCH	31.0	pg	27.0 - 34.0	
MCHC	352	g/L	310 - 360	
RDW	11.9	%	11.0 - 15.0	
White Cell Count	5.8	x10 <sup>9</sup> /L	4.0 - 11.0	
Neutrophils	3.4	x10 <sup>9</sup> /L	2.0 - 8.0	
Lymphocytes	1.7	x10 <sup>9</sup> /L	1.0 - 4.0	
Monocytes	0.3	x10 <sup>9</sup> /L	< 1.1	
Eosinophils	0.2	x10 <sup>9</sup> /L	< 0.7	
Basophils	< 0.1	x10 <sup>9</sup> /L	< 0.3	
Platelets	262	x10 <sup>9</sup> /L	150 - 450	
MPV	9.2	fL	7.1 - 11.2	

**Comments:**  
#86323787 : The red cell, white cell and platelet parameters are within normal limits.

PATIENT: MR JONATHAN MARSH

PANEL CODES: GLS-W,GH-W,SCR-W,DHE-W,IGF-W,FAI-W,FBE-R,LFH-W,OST-W,PRG-W,PRL-W,IS-W+++