

Analyte	Biological reference range	Unit
ACE	13 - 64	U/L
Albumin	35 - 52	g/L
Albumin	(24 Hours collection) Normal : <30 Moderately increased: 30-299 Clinical albuminuria: ≥300	(µg /min)
ALP	F:33-98 & M: 43-115	u/L
ALT	F:<35 & M: <50	u/L
Amylase	28 - 100	U/L
Apolipoprotein A1	M: 1.05-1.75 F:1.05-2.05	g/L
Apolipoprotein B	M: 0.60 – 1.40 F: 0.55 – 1.30	g/L
AST	F:<35 & M: <50	unit/L
Bicarbonate	Adult - 21 - 31	mmol/L
C3	Adult and children - 0.9 - 1.8	g/L
C4	Adults and children - 0.1 - 0.4	g/L
Calcium	2.2 - 2.65	mmol/L
Ceruloplasmin	200 - 600	mg/L
Chloride	101 - 109	mmol/L
Cholesterol	< 5.2	mmol/L
CK-NAC	M: ≤ 171 F: ≤ 145	U/L
C-Peptide	0.03-100.0	nmol/L
C-Reactive protein	<5 mg/l	mg/l
Creatinine	M: 59-104 F: 45-84	umol/L
Direct bilirubin	≤ 3.4	umol/L
eGFR	For UK guidelines: <a href="http://www.renal.org/information-resources">www.renal.org/information-resources</a>	mL/min/1.73m <sup>2</sup>
Erythropoetin	2.59-18.50	mIU/mL
Gamma GT	M: <55 F: <38	unit/L
Globulin	19 - 35	NA
Glucose	Non - Fasting 4.0 - 7.8 Fasting 4.0 - 6.0	mmol/l
Haemoglobin A1C	20 - 41 mmol/mol - Normal range 42 - 47 mmol/mol - High risk of developing diabetes. Consider implementing lifestyle measures. >48 mmol/mol - Possible diabetes.  If patient is symptomatic, diagnosis is confirmed. Consider re-testing HbA1c within 4 weeks if patient not symptomatic.	mmol/mol
Haptoglobin	0.3 – 2.0	g/L
HDL Cholesterol	> 1.2	mmol/L
IGA	0.7 – 4.0	g/L
IGE	0 - 160	IU/ML
IGG	7 - 16	g/L
IGM	0.4 - 2.3	g/L
Iron	Male 12.5 – 32.2 µmol/L ( 70 – 180 µg/dL) Female 10.7 – 32.2 µmol/L ( 60 – 180 µg/dL)	
Lactate	0.5 - 2.2	mmol/L
LDH	< 248	U/L
LDL Cholesterol	Optimal < 3.3	mmol/L
Magnesium	M- 0.73 - 1.06 F - 0.77 - 1.03	mmol/L
Phosphate	M - 0.81-1.45 F - 0.77 - 1.03	mmol/L

Potassium	3.5 - 5.1	mmol/L
RF	<14	IU/mL
Sodium	136 - 146	mmol/L
Total bilirubin	5 - 21	umol/L
Total Protein	66 - 83	g/L
Transferrin	2 - 3.6	g/L
Triglycerides	< 1.7	mmol/L
UIBC	27.8 - 63.6	umol/L
Urea	2.8 - 7.2	mmol/L
Uric Acid	M: 208.3 - 428.4 F: 154.7 - 357.0	umol/L
AMH	Age range specific. Please enquire.	pmol/L
Beta HCG	< 5 - Non pregnant 5 - 25 - Early pregnancy	mIU/ml
Cortisol	AM: 185-624 PM: < 276	nmol/L
DHEA-S	Age range specific. Please enquire.	umol/L
FSH	Male: 1.27-19.26  Females: Mid-Follicular Phase - 3.85-8.78 Mid-Cycle Peak - 4.54-22.51 Mid-Luteal Phase - 1.79-5.12 Post menopausal - 16.74-113.59	IU/L
HGH	Female: 0.010-3.607 Male: 0.003-0.971	ug/L
Insulin	1.9-23	uIU/ML
Luteinising hormone	Male: 1.24- 8.62 Mid-Follicular - 2.1 - 10.9 Mid-Cycle Peak - 19.2 -103 Mid-Luteal Phase - 1.2 - 12.9 Post menopausal - 10.9 - 58.6	IU/L
Oestradiol	Male: <121.5 Females: Early-follicular - 308.0 - 576.4 Mid-follicular - 350.6 - 510.3 Ovulatory - 1575 - 2283 Mid-Luteal phase - 796.6 - 1024 Post menopausal - 73.05 - 110.14	pmol/L
Progesterone	Male: 0.35- 5.15 Female: Non-pregnant: Mid-follicular -0.77 - 3.8 Mid-luteal - 12.9 - 46.4 post mo - <0.2 - 1.95 preg 1st trim - 11.82 - 126.8 2nd tri - 48.5 - 113.25  Non-pregnant females Mid-follicular phase: 1.0 -4.8 Mid-luteal phase: 16.4-59.0 Post-menopausal: 0.3 - 2.5  Pregnant females First trimester: 15.0 - 161.4 Second trimester 61.7 - 144.1	nmol/L

Prolactin	Male: 56.17 - 279.3 Female: Pre-menopausal: 71.06- 568.5 Post-menopausal: 58.29 - 417.8	mIU/L
PTH	1.3-9.3	pmol/L
SHBG	Male: 20-50 years - 13.3-89.5 Female: 20-46 years: 18.2-135.5 47-91 years: 16.8-125.2	nmol/L
Testosterone	Male: 6.06 - 27.07 Female: 0.34 - 2.60	nmol/L
Ferritin	M: 23.9-336.2 F: 11.0-306.8	ug/L
Folate	3.1 to 19.9	ug/L
FT3	3.8-6.0	pmol/L
FT4	7.86-14.41	pmol/L
Thyroglobulin antibody	< 4	IU/ml
TPO	0-9	IU/ml
TSH	0.38 - 5.33	IU/mL
Vitamin B12	180-914 - Normal 145 - 180 - Intermediate 0 - 145 - Deficient	pg/mL
Vitamin D	<50 Deficient 50 to 75 Insufficient 75 - 250 Sufficient Upper safety limit >250	nmol/L
Alpha feta protein	0 - 8	IU/ML
C153	0-23.5	U/mL
CA 19-9	0-35	U/ML
CEA	0 - 3	ng/ml
OV125	0 - 35	U/mL
PSA	0 - 4.0	ug/L