

Normal values

Haematology

Haemoglobin	
Male	13.5–17.7 g/dL
Female	11.5–16.5 g/dL
Mean corpuscular haemoglobin (MCH)	27–32 pg
Mean corpuscular haemoglobin concentration (MCHC)	32–36 g/dL
Mean corpuscular volume (MCV)	80–96 fL
Packed cell volume (PCV)	
Male	0.40–0.54 L/L
Female	0.37–0.47 L/L
White blood count (WBC)	4–11 × 10 ⁹ /L
Basophil granulocytes	<0.01–0.1 × 10 ⁹ /L
Eosinophil granulocytes	0.04–0.4 × 10 ⁹ /L
Lymphocytes	1.5–4.0 × 10 ⁹ /L
Monocytes	0.2–0.8 × 10 ⁹ /L
Neutrophil granulocytes	2.0–7.5 × 10 ⁹ /L
Total blood volume	60–80 ml/kg
Plasma volume	40–50 ml/kg
Platelet count	150–400 × 10 ⁹ /L
Serum B ₁₂	160–925 ng/L (150–675 pmol/L)
Serum folate	2.9–18 µg/L (3.6–63 nmol/L)
Red cell folate	149–640 µg/L
Red cell mass	
Male	25–35 ml/kg
Female	20–30 ml/kg
Reticulocyte count	0.5–2.5% of red cells (50–100 × 10 ⁹ /L)
Erythrocyte sedimentation rate (ESR)	<20 mm in 1 hour
Plasma viscosity	1.5–1.72 mPa.s

Coagulation

Bleeding time (Ivy method)	3–9 min
Activated partial thromboplastin time (APTT)	23–31 s
Prothrombin time	12–16 s
International Normalized Ratio (INR)	1.0–1.3
D-dimer	<500 ng/ml

Biochemistry (serum/plasma)

Alanine aminotransferase (ALT)	5–40 U/L
Albumin	35–50 g/L
Alkaline phosphatase	39–117 U/L
Amylase	25–125 U/L
Angiotensin-converting enzyme	10–70 U/L
α ₁ -antitrypsin	1.1–2.1 g/L
Aspartate aminotransferase (AST)	12–40 U/L
Bicarbonate	22–30 mmol/L
Bilirubin	<17 µmol/L (0.3–1.5 mg/dL)
Caeruloplasmin	0.20–0.61/L
Calcium	2.20–2.67 mmol/L (8.5–10.5 mg/dL)
Chloride	98–106 mmol/L
Complement	
C3	0.75–1.65 g/L
C4	0.20–0.60 g/L
Copper	11–20 µmol/L (100–200 mg/dL)
C-reactive protein	<10 mg/L
Creatinine	79–118 µmol/L (0.6–1.5 mg/dL)
Creatine kinase (CPK)	
Female	24–170 U/L
Male	24–195 U/L
CK-MB fraction	<25 U/L (<60% of total activity)
Ferritin	
Female	6–110 µg/L
Male	20–260 µg/L
Post menopausal	12–230 µg/L
α-fetoprotein	<10 k U/L
Glucose (fasting)	4.5–5.6 mmol/L (70–110 mg/dL)
Fructosamine	up to 285 µmol/L
γ-glutamyl transpeptidase (γ-GT)	
Male	11–58 U/L
Female	7–32 U/L
Glycosylated (glycated) haemoglobin (HbA _{1c})	3.7–5.1%
Hydroxybutyric dehydrogenase (HBD)	72–182 U/L
Immunoglobulins (11 years and over)	
IgA	0.8–4 g/L
IgG	5.5–16.5 g/L
IgM	0.4–2.0 g/L
Iron	13–32 µmol/L (50–150 µg/dL)
Iron binding capacity (total) (TIBC)	42–80 µmol/L (250–410 µg/dL)
Lactate dehydrogenase	240–480 U/L
Magnesium	0.7–1.1 mmol/L
β ₂ -microglobulin	1.0–3.0 mg/L
Osmolality	275–295 mOsm/kg

Phosphate	0.8–1.5 mmol/L
Potassium	3.5–5.0 mmol/L
Prostate-specific antigen (PSA)	up to 4.0 µg/L
Protein (total)	62–77 g/L
Sodium	135–146 mmol/L
Urate	0.18–0.42 mmol/L (3.0–7.0 mg/dL)
Urea	2.5–6.7 mmol/L (8–25 mg/dL)
Vitamin A	0.5–2.01 µmol/L
Vitamin D	
25-hydroxy	37–200 nmol/L (0.15–0.80 ng/L)
1,25-dihydroxy	60–108 pmol/L (0.24–0.45 pg/L)
Zinc	11–24 µmol/L

Lipids and lipoproteins

Cholesterol	3.5–6.5 mmol/L (ideal <5.2 mmol/L)
HDL cholesterol	
Male	0.8–1.8 mmol/L
Female	1.0–2.3 mmol/L
LDL cholesterol	<4.0 mmol/L
Lipids (total)	4.0–10.0 g/L
Lipoproteins	
VLDL	0.128–0.645 mmol/L
LDL	1.55–4.4 mmol/L
HDL	
Male	0.70–2.1 mmol/L
Female	0.50–1.70 mmol/L
Phospholipid	2.9–5.2 mmol/L
Triglycerides	
Male	0.70–2.1 mmol/L
Female	0.50–1.70 mmol/L

Blood gases (arterial)

P _a CO ₂	4.8–6.1 kPa (36–46 mmHg)
P _a O ₂	10–13.3 kPa (75–100 mmHg)
[H ⁺]	35–45 nmol/L
pH	7.35–7.45
Bicarbonate	22–26 mmol/L

Urine values

Calcium	7.5 mmol daily or less (<300 mg daily)
Copper	0.2–1.0 µmol daily
Creatinine	0.13–0.22 mmol per kilogram body weight, daily
5-hydroxyindole acetic acid (5HIAA)	<75 µmol daily; amounts lower in females than males
Protein (quantitative)	<0.15 g per 24 hours
Sodium	60–80 mmol per 24 hours