

HANDY TABLES

It may be noted that the normal values presented in various texts differ somewhat. Institutions publish a specific set of normal values to be used as a baseline reference by individuals using that laboratory. Always check the reported values against these norms.

Blood

	Conventional Units	SI Units
Arterial Blood Gases		
Pao ₂	95-100 mm Hg	
Paco ₂	35-42 mm Hg	
pH	7.35-7.45	
Bicarbonate (HCO ₃ ⁻)	22-26 mEq/L	
Base excess	-2.4 to +2.3 mEq/L	
Arterial O ₂ saturation (Sao ₂)	96%-98%	
Cells		
Red blood cells (erythrocytes, RBCs)	4.2-5.9 million (10 ⁶)/mm ³	4.2-5.9 × 10 ¹² /L
Platelets (thrombocytes)	150,000-350,000/mm ³	150-350 × 10 ⁹ /L
White blood cells (leukocytes, WBCs)	4500-10,500/mm ³	4.5-10.5 × 10 ⁹ /L
Differential		
Neutrophils (57%-70%)	2000-7500/mm ³	
Lymphocytes (20%-25%)	2000-4000/mm ³	
Eosinophils (2%-4%)	400-450/mm ³	
Monocytes (3%-8%)	500-1000/mm ³	
Basophils (0.5%-1%)	40-100/mm ³	
Hemoglobin	Male 13.5-18 g/100 mL (135-180 g/L) Female 12-16 g/100 mL (120-160 g/L)	8.1-11.2 mmol/L 7.4-9.9 mmol/L
Reticulocytes	0.5%-2.5% erythrocytes	
Hematocrit	Male 45%-52% Female 37%-48%	0.45-0.52 0.37-0.48
Erythrocyte sedimentation rate (ESR)	Male 1-13 mm/hr Female 1-20 mm/hr	
Red cell volume	25-35 mL/kg body weight	
Mean corpuscular volume	86-98 μm ³	
Electrolytes		
Sodium (Na ⁺)	135-142 mEq/L	135-142 mmol/L
Potassium (K ⁺)	3.8-5 mEq/L	3.8-5 mmol/L
Calcium (Ca ²⁺)	4-5 mEq/L	2-2.6 mmol/L
Magnesium (Mg ²⁺)	3 mEq/L	1.25-1.75 mmol/L
Chloride (Cl ⁻)	95-102 mEq/L	95-102 mmol/L
Nutrients		
Amino acids (total)	35-65 mg/dL	1.5-2.5 mmol/L
Glucose (fasting)	70-110 mg/dL	3.9-5.6 mmol/L
Iron (total)	60-150 μg/dL	11-27 μmol/L
Lipids (total)	400-800 mg/dL	4-8 g/L
Cholesterol	150-250 mg/dL	4-6.5 mmol/L
HDL	>40 mg/dL	
LDL	<180 mg/dL	
Fatty acids (total)	8-20 mg/dL	0.08-0.2 g/L
Triglycerides	75-160 mg/dL	0.85-1.9 mmol/L
Phospholipids	150-380 mg/dL	1.5-3.8 g/L
Vitamin B ₁₂	150-900 pg/mL	150-670 pmol/L
Proteins		
Albumin	3.2-4.5 g/dL	32-45 g/L
Fibrinogen	200-400 mg/dL	2-4 g/L
Immunoglobulins	0.5-1.5 g/dL	5-16 g/L
IgG	640-1350 mg/100 mL	6.4-13.5 g/L
IgM	85-350 mg/100 mL	0.8-3.5 g/L
IgA	70-300 mg/100 mL	0.7-3 g/L
IgE	3-150 mg/100 mL	0.03-1.5 g/L
IgD	0-8 mg/100 mL	0
Hormones		
Adrenocorticotropin (ACTH)	15-70 pg/mL	3.3-15.4 pmol/L
Cortisol		
8 AM	5-25 μg/100 mL	0.14-0.69 μmol/L
8 PM	<10 μg/100 mL	0-0.28 μmol/L
Triiodothyronine (T ₃)	75-95 ng/100 mL	1.16-3 nmol/L
Wastes		
Bilirubin (direct)	maximum 0.3 mg/dL	5 μmol/L
Bilirubin (indirect)	0.1-1.0 mg/dL	1.7-17 μmol/L
Creatinine	0.6-1.2 mg/dL	53-105 μmol/L
Nonprotein nitrogen	20-35 mg/dL	14.3-25 mmol/L
Urea nitrogen	8-22 mg/dL	2.9-8 mmol/L
Uric acid	2-6 mg/dL	0.12-0.36 mmol/L