REFERENCE VALUES FOR COMMON LABORATORY TESTS[1]

Serum Chemistries	Reference Range
Alanine aminotransferase (ALT)	10–40 U/L
Albumin	3.5–5.0 g/dL (adults) 3.4–4.2 g/dL (young children)
Alkaline phosphatase (ALP)	Varies with age: 30–120 IU/L (adults) 150–420 IU/L (children)
Ammonia	15–45 mcg/dL
Amylase	27–131 U/L
Aspartate aminotransferase (AST)	10–30 U/L
B-type natriuretic peptide (BNP)	< 100 pg/mL
Bilirubin, direct	0.1–0.3 mg/dL
Bilirubin, total	0.3–1.2 mg/dL
Blood urea nitrogen (BUN)	8–23 mg/dL (adults) Lower in children
Calcium, ionized	4.6–5.1 mg/dL
Calcium, total serum	8.2–10.2 mg/dL
Carbon dioxide (venous) (CO_2)	22–28 mEq/L
Chloride (Cl)	96–106 mEq/L
C-reactive protein (CRP)	0.08–3.1 mg/L
Creatinine kinase (CK)	40–150 U/L
Creatinine, serum (SCr)	0.6–1.2 mg/dL (adults) 0.2–0.7 mg/dL (children)
Creatinine (clearance) (CrCl)	75–125 mL/minute/1.73 m^2
Ferritin	15–200 ng/mL
γ-Glutamyl transpeptidase	2–30 U/L
Glucose, serum	70–110 mg/dL
Hemoglobin A1C % of total hemoglobin (A1C)	4%–7%
Lactate	0.5 – 1 mmol/L
Lactate dehydrogenase (LDH)	100–200 U/L
Lipase	31–186 U/L
Magnesium	1.3–2.1 mEq/L
Osmolality, serum	275–295 mOsm/kg
Phosphorus	2.3–4.7 mg/dL (adults) 3.7–5.6 mg/dL (children)
Potassium	3.5–5.0 mEq/L
Prealbumin	19.5–35.8 mg/dL
Sodium	136–142 mEq/L
Uric acid, serum	4–8 mg/dL

[1]Values given in this table are commonly accepted reference ranges compiled from several sources. Patient-specific goals may differ depending on age, sex, clinical condition, and the laboratory methodology used to perform the assay.

Information from: AMA Manual of Style. Available at www.Amamanualofstyle.com/page/si-conversion-calculator. Last accessed 11/21/2018); Lee M, ed. Basic Skills in Interpreting Laboratory Data, 6th ed. Bethesda, MD: American Society of Health-System Pharmacists, 2017; and DiPiro JT, Talbert RL, Yee GC, et al., eds. Pharmacotherapy: A Pathophysiologic Approach, 10th ed. New York: McGraw-Hill, 2017.

Hematology/Coagulation	Reference Range
Hematocrit (Hct)	42%–50% (men) 36%–45% (women)
Hemoglobin (Hgb)	14–18 g/dL (men) 12–16 g/dL (women)
International normalized ratio (INR)	0.9–1.1
Mean corpuscular hemoglobin (MCH)	26–34 pg/cell
Mean corpuscular hemoglobin concentration (MCHC)	33–37 g/dL
Mean corpuscular volume (MCV)	80–100 fL/cell
Partial thromboplastin time (PTT)	25–40 seconds
Platelet count (Plt)	150,000–350,000 cells/mm^3
Prothrombin time (PT)	10–13 seconds
Red blood cell count (RBC)	$4.5–5.9 \times 10^6$ cells/mm^3 (men) $4.1–5.1 \times 10^6$ cells/mm^3 (women)
Reticulocyte % of red blood cells	0.5%–1.5%
White blood cell count (WBC)	$4.5–11.0 \times 10^3$ cells/mm^3

Serum Lipids	Reference Range	
Cholesterol, total (TC), desirable	< 200 mg/dL	
High-density lipoprotein (HDL) cholesterol, desirable	≥ 60 mg/dL	
Low-density lipoprotein (LDL) cholesterol	< 100 mg/dL	
Triglycerides (TG)	< 150 mg/dL	
Blood Gases	Arterial	Venous
pH	7.35–7.45	7.31–7.41
Partial pressure of carbon dioxide (PCO_2)	35–45 mm Hg	40–52 mm Hg
Partial pressure of oxygen (PO_2)	80–100 mm Hg	30–50 mm Hg
Oxygen saturation (SaO_2)	> 90%	60%–75%
Serum bicarbonate (HCO_3)	22–26 mEq/L	21–28 mEq/L
Urinalysis		
Leukocyte esterase, nitrite, protein, blood, ketones, bilirubin, glucose	Negative	
pH	4.5–8.0	
Specific gravity	1.010–1.025	