

# Common Laboratory Values Cheat Sheet

Diagnostic tests are crucial in any aspect of clinical practice since they assist clinicians in establishing and determining the particular condition of the patient. Nurses are often tasked of patient preparation and specimen collection during these diagnostic procedures. It is of utmost importance that nurses are knowledgeable about the different procedures and their values and results to make informed clinical decisions. To assist nurses, here are the common laboratory values listed in an organized and easy-to-understand table.

Value	Normal Range	Unit
<b>COMPLETE BLOOD COUNT</b>		
Red Blood Cell (RBC)	M: 4.5—5.5 F: 4.0—4.9	x10 <sup>5</sup> /ml
White Blood Cell (WBC)	4,500—10,000	cells/mcL
Platelets	100,000—450,000	cells/mcL
Hemoglobin (Hgb)	M: 13.5—16.5 F: 12.0—15.0 Pregnant: 10—15	g/dL
Hematocrit (Hct)	M: 41—50% F: 36—44%	
Mean Corpuscular Volume (MCV)	80—100	fL
<b>DIFFERENTIAL COUNT</b>		
Neutrophils	54—62%	
Eosinophils	1—3%	
Basophils	0—0.75%	
Lymphocytes	25—33%	
Monocytes	3—7%	
<b>SERUM ELECTROLYTES</b>		
Sodium (Na <sup>+</sup> )	135—145	mEq/L
Potassium (K <sup>+</sup> )	3.5—5.5	mEq/L
Chloride (Cl <sup>-</sup> )	95—105	mEq/L
Calcium	8.5—10.9	mEq/L
Calcium, ionized	2.24—2.46	mEq/L
Magnesium (Mg)	1.5—2.5	mEq/L
Phosphorus (P)	2.5—4.5	mEq/L
<b>URINALYSIS</b>		
Volume	1,000—2,000	mL/day
	30	mL/hour
Specific Gravity	1.010—1.020	
pH	4.5—8	
Casts	1—2	per high power field
Glucose	none	
Protein	none	
Uric Acid	F: 3.5—7.2 M: 2.6—6.0	mg/dL
<b>CHEMISTRY VALUES</b>		
Glucose	Adults: 70—110	mg/dL
Blood Urea Nitrogen (BUN)	Adults: 7—18 Child: 5—20 Infant: 5—15	mg/dL
Serum Creatinine	0.6—1.35	mg/dL

Value	Normal Range	Unit
<b>CHEMISTRY VALUES (cont.)</b>		
Creatine phosphokinase (CPK)	21—198	units/L
Creatinine Clearance (CrCl)	F: 85—132 M: 90—138	mL/min
Albumin	3.4—5.0	g/dL
Bilirubin	<1.0	mg/dL
Uric Acid	3.5—7.5	mg/dL
<b>COAGULATION STUDIES</b>		
Prothrombin Time (PT)	11—14	seconds
Partial Thromboplastin Time (PTT)	25—35	seconds
International Normalized Ratio (INR)	0.8—1.2	
Activated Partial Thromboplastin Time (aPTT)	1.5—2.5	
Fibrinogen	203—377	mg/dL
Bleeding time	1—6	mins
<b>LIPOPROTEINS AND TRIGLYCERIDES</b>		
Total Cholesterol	Ideal: below 200 Borderline: 200—240 High: above 240	mg/dL
Low Density Lipoprotein (LDL)	<70	mg/dL
High Density Lipoprotein (HDL)	<60	mg/dL
Triglycerides	Normal: below 150 Borderline high: 150—199 High: 200—499 Very high: above 500	mg/dL
SGOT (AST)	<35	IU/L
SGPT (ALT)	<35	IU/L
<b>CARDIAC MARKERS</b>		
Troponin (CTN-1 or CTN-T)	Normal I: 0.03 Critical level I: above 1.5 Critical level T: 0.2	ng/L
C-reactive protein	Below 0.8	mg/dL
CD40 Ligand	1.51—5.35	mg/L
Creatinine Kinase (CK-MB)	0—3	mcg/L
<b>ARTERIAL BLOOD GAS</b>		
pH	7.35—7.45	
Partial Pressure of CO <sub>2</sub> (pCO <sub>2</sub> )	35—45	mmHg
Partial Pressure of O <sub>2</sub> (pO <sub>2</sub> )	80—100	mmHg
Bicarbonate (HCO <sub>3</sub> )	22—26	mEq/L

ARTERIAL BLOOD GAS (cont.)		
Base Excess (BE)	-2—+2	mEq/L
Oxygen Saturation (SaO <sub>2</sub> )	95—100%	
THYROID FUNCTION STUDIES		
Thyroid-Stimulating Hormone (TSH)	Adults: 0.2—5.4 Neonate: 3—20	mU/L
Thyroxine (Total T <sub>4</sub> )	Adult: 5.4—11.5 Child: 6.4—13.3	mcg/dL
Free Thyroxine (Total T <sub>4</sub> F <sub>4</sub> )	Adult: 0.7—2.0	ng/dL
Thyroid-Binding Globulin (TBG)	Male: 15—30 Female: 11.5—32.2 Pregnancy 1st Trimester: 19.8—64.7 2nd Trimester: 41.4—63.9 3rd Trimester: 31.0—73.6	mcg/dL
Triiodothyronine (Total T <sub>3</sub> )	75—200	ng/dL
Free Triiodothyronine (FT <sub>3</sub> )	260—480	pg/dL
Thyroglobulin (Tg) Antibody	5—25	ng/mL

TUMOR MARKERS		
CA 19-9 Tumor Markers	<37	U/mL
CA 27.29	Above 38	U/ml
CA 15.3	Above 22	U/ml
CA 125	0—35	U/ml
Carcinoembryonic Antigen (CEA)	Above 5	ng/mL
THERAPEUTIC SERUM DRUG LEVELS		
Carbamazepine (Tegretol)	4—10	mcg/mL
Digoxin (Lanoxin)	0.8—2.0	ng/mL
Lithium (Eskalith)	0.8—1.5	mEq/L
Phenobarbital (Solfoton)	15—40	mcg/mL
Theophylline (Aminophylline)	10—20	mcg/mL
Valproic Acid (Depakene)	50—100	mcg/mL