

## NORMAL VALUES

### Hematological values:

	Male	Female
Hemoglobin	14.0 – 18.0 gm/dL	12.0 – 16.0 gm/dL
Hematocrit	41-50%	36-45%
Erythrocytes (RBC)	4.7 – 6.1 M/ $\mu$ L	4.2 – 5.4 M/ $\mu$ L
WBC	4.8 – 10.8 K/ $\mu$ L	4.8 – 10.8 K/ $\mu$ L
Differential:		
Neutrophils	50 – 75 %	45 – 70 %
Lymphocytes	20 – 45 %	20 – 45%
Monocytes	0 – 10 %	0 – 10 %
Eosinophils	0 – 5 %	0 – 5 %
Basophils	0 – 5 %	0 – 5 %
Platelets	140 – 440 K/ $\mu$ L	140 – 440 K/ $\mu$ L
Sedimentation rate	< 50 yr: 0 – 15 mm/hr >= 50 yr: 0 – 20 mm/hr	< 50 yr: 0 – 20 mm/hr >= 50 yr: 0 – 30 mm/hr

MCH = 25 - 35 pg/cell

MCV = 78-100  $\mu$ m<sup>3</sup>

MCHC = 31-37 g/dl

RDW = 11.5 – 14.5 %

### Iron and iron transport

#### proteins

Iron	60-150 $\mu$ g/dL
TIBC	250-400 $\mu$ g/dL
Serum ferritin	12-300 $\mu$ g/ml
Transferrin saturation	20-45%

### Chemistries

Sodium (Na)	135-144 mmol/L
Potassium (K)	0-12 mos: 3.5-6.0 mmol/L > 12 mos: 3.5-5.0 mmol/L
Chloride (Cl)	98-107 mmol/L
CO <sub>2</sub>	22-32 mmol/L
BUN	0-7 days: 3-12 mmol/L > 7 days: 8-20 mg/dL
Creatinine (Cr)	Male: 0.7 – 1.3 mg/dL Female: 0.6 – 1.1 mg/dL
Glucose (fasting)	0-1 month: 45-90 mg/dL > 1 month: 65-110 mg/dL
Ammonia	20-120 $\mu$ g/dL
Phosphorus	2.3 – 4.7 mg/dL
Calcium total	9.2 – 11.0 mg/dL
Calcium ionized	4.0 – 4.8 mg/dL
Magnesium	1.8 – 3.0 mg/dL
Serum bilirubin (total/direct)	0.2-1.3/0.0 – 0.3 mg/dL
Total Serum Protein:	6-8 g/dL
Albumin	3.9 – 5.0 g/dL
Globulin	2.3 – 3.5 g/dL
Alpha-fetoprotein	= <12.8 U/mL
Total Urinary Protein:	0.050 - 0.100 gm/24 hrs
CSF Protein:	15-45 mg/dL
CSF Glucose:	50-75 mg/dL

Serum immunoglobulins (mg/dL)	<u>IgG</u>	<u>IgA</u>	<u>IgM</u>	<u>IgE</u>
Newborn	611-1542	1.4 – 3.6	5.9 – 24	<53 IU/mL
1 year – 2 year	331 -1164	13.9 – 105.0	41 – 164	<352 IU/ mL
3 year – 4 year	423 - 1090	22 - 157	45 – 190	<352 IU/ mL
Adult	723-1685	69 - 382	63 - 277	<379.0 IU/ mL

Serum C3:	80-180 mg/dL
Serum C4:	20-58 mg/dL
Carcinoembryonic antigen (CEA):	Non-Smokers 0 – 4.9 ng/ml Smokers 0 – 9.9 ng/ml
C1q binding assay:	≤4 mEq Heat-aggregated IgG/mL

### Blood gases

pH	7.38-7.44
pO <sub>2</sub>	80-100 mmHg
pCO <sub>2</sub>	35-45 mmHg
HCO <sub>3</sub>	21-28 mmol/L

### Enzymes

LDH	90-250 U/L	
Lipase	3-19 U/dL	
Serum amylase	53-123 U/L	
Plasma amylase	43-115 U/L	
	<b>Male</b>	<b>Female</b>
AST	10-40 U/L	9-25 U/L
ALP	45-115 U/L	30-100 U/L
ALT	10-55 U/L	7-30 U/L
GGT	1-94 U/L	1-70 U/L

### Clotting

PT	infant: 10.9-13.9 secs >30 days: 12.2-14.2 secs
aPTT	infant: 34-51 secs > 30 days: 23-36 secs

### Lymphocytes in peripheral blood

CD19	4-20%	96-421 cells/μL
CD3	62-85%	700-2500 cells/μL
CD2	70-88%	840-2800 cells/μL
CD4	34-59%	430-1600 cells/μL
CD8	16-38%	280-1100 cells/μL

### Mitogenic responses [<sup>3</sup>H] Thymidine (Tdr) incorp. mean ± s.d.

PHA	15,000 ± 6,000 cpm
Con A	10,000 ± 2,000 cpm
Response to PWM	a. IgG: 2-5 μg/10 <sup>6</sup> cells b. IgM: 3-12 μg/10 <sup>6</sup> cells