

 CBC and differential

Test	Reference range
RBC, male	4.4—5.7 million/mm ³
RBC, female	3.9—5.1 million/mm ³
Hemoglobin, male	13.2—16.6 g/dL
Hemoglobin, female	11.6—15 g/dL
Hematocrit	36% (women) to 49% (men)
WBC	3,400—9,600 cells/mm ³
Platelets	150,000—450,000/mm ³
MCV	80—100 fL
MCH	26—34 pg
Reticulocytes	0.5—2.5%

WBC	% of total
Neutrophils (most abundant)	55—70%
Lymphocytes (second)	20—40%
Monocytes	2—8%
Bands	0—7%
Eosinophils	1—4%
Basophils	0.5—1%

- ✓ **Rule of three:** hemoglobin $\times 3$ (± 3) equals the hematocrit
- ✓ **MCV** = (Hct $\div$ RBC) $\times 10$; **MCH** = (Hgb $\div$ RBC) $\times 10$
- ✓ **RBC lifespan** about 120 days; **platelet lifespan** about 10 days

 Chemistry

Test	Value	Means
Fasting glucose	under 100 mg/dL	Normal
GTT at 2 hours	under 140	Normal
GTT at 2 hours	140—199	Impaired / prediabetes
GTT at 2 hours	over 200	May indicate diabetes
A1c	4—5.6%	Non-diabetic
A1c	under 7%	Diabetic goal
Total cholesterol	under 200 mg/dL	Normal
Total cholesterol	over 240 mg/dL	High risk
HDL	40+ men, 50+ women	Acceptable
LDL	under 100 mg/dL	Optimal
LDL	100—129	Near or above optimal
LDL	130—159	Borderline high
LDL	160—189	High
LDL	190+	Very high

- ✓ **A1c reflects 60—90 days** and is repeated every 3 months
- ✓ **Fast 12 hours** for cholesterol; 12 hours from food and alcohol for triglycerides
- ✓ **T3 and T4 come from the thyroid, TSH from the pituitary, TRH from the hypothalamus.** Elevated TSH indicates hypothyroidism