

Iron-Related Blood Tests

Blood Test	Normal Values*	Explanation
Hematocrit	40.7 to 50.3% (males) 36.1 to 44.4% (females)	Measures the proportion of red blood cells in blood plasma. Values vary with altitude.
Hemoglobin	13.8 to 17.2 g/dl (males) 12.1 to 15.1 g/dl (females)	Measures the iron-containing protein in red blood cells. Values vary with altitude.
Ferritin	12 to 300 ng/ml (males) 12 to 150 ng/ml (females)	Indicates amount of iron stored.
Serum iron	60 to 170 mcg/dl	Measures the amount of iron in transferrin. Normally 30% of the available sites are carrying iron.
Transferrin saturation	20 to 50%	Indicates that there is not enough iron to fill the available sites.
Total iron binding capacity (TIBC)	240 to 450 mcg/dl	Indirect measure of transferrin.

Legend: g/dl = grams per deciliter; ng/ml = nanograms per milliliter; mcg/dl = micrograms per deciliter

*Normal values may vary by laboratory.

Reference: Dunford M, Doyle A. Nutrition for Sport and Exercise, 2nd edition. Wadsworth Publishing; 2008.