



# ONLINE HAIR HEALTH AND LENGTH COURSE

## BLOOD WORKS

### 1) FULL BLOOD COUNT

**What is this test?** - a blood test used to screen your overall health and to look for many different illnesses, including anemia, infections etc. The test extracts a large amount of information from the blood sample you've given, including:

- **The number and types of white blood cells (WBCs).**  
There are 5 types of WBCs. All play a role in fighting infection. High numbers of WBCs, or of a specific type of WBC, may mean you have an infection or inflammation somewhere in your body. Low numbers of WBCs may mean you are at risk for infections.
- **The number of red blood cells (RBCs).**  
RBCs carry oxygen throughout the body and remove excess carbon dioxide. Too few RBCs may be a sign of anemia or other diseases. In rare cases, too many RBCs may cause problems with blood flow.
- **How the size of your red blood cells varies.**  
This test is known as red cell distribution width (RDW, RDW-CV, or RDW-SD). For instance, you will probably have greater differences in red blood cell size if you have anemia.
- **Hematocrit (HCT).**  
This means the portion of red blood cells in a certain amount of whole blood. A low hematocrit may be a sign of too much bleeding. Or it might mean that you have iron deficiency or other disorders. A higher-than-normal hematocrit can be caused by dehydration or other disorders.
- **Hemoglobin (Hgb, Hb).**  
Hemoglobin is a protein in red blood cells. It carries oxygen from the lungs to the rest of the body. Abnormalities can be a sign of problems ranging from anemia to lung disease.
- **The average size of your red blood cells.**  
This test is known as mean corpuscular volume (MCV). MCV goes up when your red blood cells are bigger than normal. This happens if you have anemia caused by low vitamin B12 or folate levels. If your red blood cells are smaller, this can mean other types of anemia, such as iron deficiency anemia.

- **A platelet (PLT) count.**

Platelets are cell fragments that play a role in blood clotting. Too few platelets may mean you have a higher risk of bleeding. Too many may mean a number of possible conditions.

### **What do my test results mean?**

Test results may vary depending on your age, gender, health history, the method used for the test, and other things. Your test results may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

Although estimates vary from lab to lab, here are some typical normal ranges for the main parts of the FBC:

- Red blood cell (RBC) count: 3.93 to 5.69 million cells per cubic millimeter (million/mm<sup>3</sup>)
- Hemoglobin (Hgb, Hb): 12.0 to 16 g/dL for females
- Hematocrit (HCT): 38% to 47.7%
- White blood cell (WBC) count: 3,300 to 8,700 cells per cubic millimeter (thousand/mm<sup>3</sup>)
- Platelet (PLT) count: 147,000 to 347,000 per cubic millimeter (thousand/mm<sup>3</sup>)

## **2) Iron Studies**

The serum iron test measures the amount of iron in your blood. The total iron-binding capacity looks at how well the iron moves through your body. Iron is an important mineral that your body needs to stay healthy, your body uses iron to make hemoglobin.

Ferritin is a protein that stores iron and is routinely included as part of this test.

Although estimates vary from lab to lab, here are some typical normal ranges for the main parts of this test:

Results are given in nanograms per milliliter (ng/mL). The normal range for ferritin in your blood serum is:

- 10 to 120 ng/mL for adult females, 18 to 39 years
- 12 to 263 ng/mL for females, 40 years and older
- 20 to 250 ng/mL for adult males
- 25 to 200 ng/mL for newborns
- 200 to 600 ng/mL at 1 month old
- 50 to 200 ng/mL at 2 to 5 months old
- 7 to 140 ng/mL for children 6 months to 15 years

### 3) Other tests to consider

Vitamin B12 – normal range 180 – 914 pg/ml, however results are categorised further as 'Intermediate' (145 – 180pg/ml) or 'Deficient' (<145pg/ml)

Folate – normal range 3.1 – 19.9ng/ml

Thyroid Function Tests (TFTs)

- \*Free T4 normal range 6.5 -17.0 pmol/L \*results for FT4/FT3 may be higher than the true value if the individual is using biotin.
- \*Free T3 normal range 3.1 – 6.8 pmol/L
- TSH normal range 0.34 – 5.60 uIU/ml

Estimates and measurements vary from lab to lab. Check range on test results printout given.

