

How to Understand CBC Blood Test Results

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A Complete Blood Count (CBC) is a routine, but important, test your physician may order for you during your next physical examination. The CBC tells you and your doctor a great deal about your current [health](#) state and can highlight anything that requires attention.

Difficulty: Easy

Instructions

things you'll need:

- Appointment with your physician
- Blood drawn by a clinical laboratory
- Printout of CBC results

- 1 Have your blood drawn by a clinical lab. A complete blood count (CBC) is actually a measurement of 15 individual tests: red blood count, hemoglobin, hematocrit, mean corpuscular volume, mean corpuscular hemoglobin, mean corpuscular hemoglobin concentration, red cell distribution width, platelets, mean platelet volume, white blood cell count, neutrophils, lymphocytes, monocytes, eosinophils and basophils. Each test result tells your doctor specific things about your state of health.
- 2 Understand that the red blood cell count (RBC) is a measurement of how well your body's blood cells can deliver oxygen to the body. Low values can indicate anemia. The normal range is 4.20 to 5.70.
- 3 Note the hemoglobin value. Hemoglobin is a protein in the blood and is another indicator of how well your blood delivers oxygen to the body. Hemoglobin is particularly important in high performance [exercises](#) like cycling, running and swimming. The normal range is 13.2 to 16.9.
- 4 Observe the hematocrit (HCT) value. Hematocrit is the relative percent of your blood that is made up of red blood cells. Low values are a good indicator of anemia. The normal range is 38.5 to 49.0%.
- 5 Be aware of the mean corpuscular volume (MCV). Mean corpuscular volume is a measurement of the size of your red blood cells. Abnormally large or small red blood cells can indicate anemia or other diseases. The normal range is 80 to 97.
- 6 Compare the mean corpuscular hemoglobin (MCH) value to the hemoglobin and hematocrit results. Mean corpuscular hemoglobin represents the amount of hemoglobin in each of your red blood cells. Together with hemoglobin and hematocrit, low values can indicate anemia. The normal range is 27.5 to 33.5.
- 7 Look at the mean corpuscular hemoglobin concentration (MCHC) and associate it with the MCH. The mean corpuscular hemoglobin concentration is another measurement of the amount of hemoglobin in your red blood cells and together with the MCH, it helps to diagnose anemia and other blood diseases. The normal range is 32.0 to 36.0 percent.

- 8 Recognize the red cell distribution width (RCW) and compare them to the normal range. The red cell distribution width is a measurement of the widths of your blood cells. Together with the MCV, it can indicate anemia. The normal range is 11.0 to 15.0.
- 9 Note the platelet count. The platelet count is the number of platelets that are manufactured by your bone marrow and is an indicator of how well your blood clots after bleeding. Low platelet counts are observed in thrombocytopenia. The normal range is 140,000 to 390,000 (mm³).
- 10 Jot down the mean platelet volume (MPV) and associate it with the platelet count. The MPV reflects the average volume of your platelets. High MPV is associated with a high risk of heart attack and stroke. The normal range is 7.5 to 11.5.
- 11 Look at the white blood cell count (WBC). The white blood cell count measures the number of white blood cells produced in the bone marrow to fight against infection. High concentrations can indicate disease or infection. The normal range is 3,900 to 10,000 (mm³).
- 12 Identify the neutrophils and make a note of the value if it is out of the normal range. Neutrophils are a type of granulocyte and are indicators of bacterial infection. The normal range is between 38 and 80 percent of the WBC.
- 13 Discuss the lymphocyte percentage of the blood with your healthcare professional. Lymphocytes represent a combination of T-cells, B-cells and Natural Killer (NK) cells. High numbers represent infections. The normal range is between 15 and 40 percent of the WBC.
- 14 Observe the monocyte value. Monocytes are cells that digest germs. Lower numbers indicate a higher risk for infection. The normal range is 0.0 to 13.0.
- 15 Make a note if the eosinophils are out of the normal range and discuss the results with your doctor. Eosinophils are types of cells that produce "histamine" in inflammations and are higher in allergies and parasitic infections. The normal range is 0.0 to 8.0.
- 16 Look at the basophil range. Basophils control damage to the body's tissues. The normal range is 0.0 to 2.0.

Tips & Warnings

- Have your CBC results interpreted and explained to you by your doctor. Have your blood drawn by a licensed, clinical laboratory.
- Keep your test results in perspective with the rest of your health. Verify abnormal results by repeating the tests.