

# **Blood Tests for Hematology Patients**

## **Cells Found in Your Blood**

### **Red Blood Cells (RBCs) or Erythrocytes**

RBCs are the most common of all blood cells. They contain hemoglobin which makes the blood red. Your body produces about 200 billion new RBCs daily. These cells normally live in your blood for about 120 days. Normal values for RBCs are between 4 and 6 million per cubic mm of blood.

### **Hemoglobin (HGB)**

Hemoglobin is an iron-containing protein that picks up oxygen in the lungs and carries it to other cells in your body. There the oxygen is released or replaced by carbon dioxide which is produced throughout the body. Normal blood values for hemoglobin are 12-15 gm/100 ml for women and 14-18 gm/100ml for men.

An individual whose blood does not contain enough hemoglobin is said to be anemic. The most common symptom of anemia is fatigue (feeling tired) but dizziness, rapid, or irregular heartbeats, and shortness of breath can also occur. If your hemoglobin becomes low your doctor may suggest that you take a medicine such as iron or folic acid. Sometimes the doctor may order a blood transfusion to improve symptoms.

### **Hematocrit (HCT)**

Hematocrit is a measure of the percentage of your blood accounted for by red blood cells. Normal values for hematocrit are 42-54%. In other words only 40 to 50 percent of your blood is made up of red cells. Too many red blood cells are found in a condition called polycythemia (polly-sigh-THEME-ee-ah).

### **White Blood Cells (WBC) or Leukocytes (LOO-co-sites)**

The main job of WBCs is to fight infection and provide immunity. Some white blood cells are able to move independently (other blood cells are simply carried along in the bloodstream). Because of this they are able to leave the bloodstream to enter body tissues where they fight infection.

Normal values for WBCs are 4,500-11,000 per cubic mm. A low number of WBCs makes it difficult for your body to fight infections. If your white count is abnormally low, your doctor may suggest that you avoid crowds and people who are ill, and take special care when having dental work. High WBCs usually mean that you may have an infection in your body, such as a sore throat.

## **Platelets or Thrombocytes (THROM-bo-sites)**

Platelets are the smallest and most fragile of the blood cells. Their main job is to prevent and stop bleeding. Normal values for platelets are between 130,000-380,000 per cubic mm of blood. Too few platelets, also called thrombocytopenia (throm-bo-site-o-PEA-nee-ah), can make you more likely to bleed/hemorrhage. This happens when small vessels break in the skin and mucous membranes. Thrombocytopenia can also increase the time it takes a cut to stop bleeding. Report either of these problems to your doctor.

## **Abbreviation Key**

gm = gram, a weight equal to about 0.035 of an ounce

ml = milliliter, a measure of volume equal to about 0.06 of a cubic inch

mm = millimeter, a measure equal to about 0.04 of an inch

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