

Pathology Guide

Some blood disorders can be diagnosed by viewing the cells under a microscope. Use this guide to identify blood samples from patients with the following disorders.

Abnormality	Causes	Symptoms
Anemia	Anemia is a low number of red blood cells or a low amount of hemoglobin in red blood cells. The most common type of anemia is due to iron deficiency.	Symptoms include: <ul style="list-style-type: none">• fatigue• dizzy or lightheaded• shortness of breath• rapid heart beat• red blood cells that are smaller than average
Leukemia	Leukemia is cancer of the white blood cells. It causes the rapid production of leucocytes that are undeveloped and unable to fight infection.	Symptoms include: <ul style="list-style-type: none">• fever and excessive sweating• fatigue• bone/joint pain• bleeding and bruising• shortness of breath• high white blood cell count
Sickle cell anemia	Sickle cell anemia is a genetic disorder that causes the production of abnormal hemoglobin thus distorting the shape of red blood cells. The sickle cells can slow or block blood flow.	Sickle cell anemia is generally diagnosed at birth, but is characterized by: <ul style="list-style-type: none">• shortage of red blood cells, irregular shaped red blood cells• fatigue• pain• frequent infections• delayed growth and development