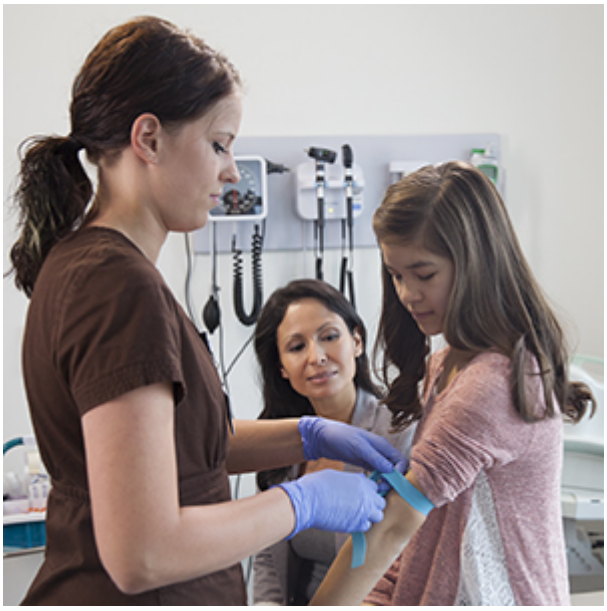
Diagnosing Blood Disorders in Your Child: Common Tests

Below are some common tests that may be used to diagnose blood disorders. Your child's healthcare provider will tell you which of these tests are needed. Most of the tests are done by taking a blood sample from a vein in the arm or from a finger or heel. If any preparation is needed for a test, you'll be told in advance.



- **Complete blood count (CBC).** This measures the amounts of different types of cells in the blood. It checks for health problems such as anemia or signs of possible infection. A CBC gives information about the following:
    - Number of red blood cells (RBCs)
    - Number and types of white blood cells (WBCs)
    - Number of platelets
    - Amount of hemoglobin in the blood (hemoglobin is a protein in RBCs that carries oxygen; it contains iron)
    - Information about the size, shape, or other traits of blood cells
- **Blood smear.** This test may be done with a CBC. A drop of blood is placed on a glass slide and viewed under a microscope. A stain is added. This makes the blood cells easier to see.
- **Coagulation tests.** These tests check how well the blood clots. This includes the prothrombin (PT) test and the partial thromboplastin time (PTT) test. These tests can help diagnose clotting disorders such as hemophilia.
- **Hemoglobin electrophoresis.** This checks for the amounts and types of hemoglobin in the blood. It is done to help diagnose blood disorders that involve problems with hemoglobin, such as sickle cell anemia or thalassemia.
- **Iron studies.** These measure the amount of iron in the blood including serum iron, total iron binding capacity (TIBC), and ferritin test. Iron studies are often used to check if anemia is caused by a lack of iron.
- **Reticulocyte count.** This measures the amount of new RBCs being made by the bone marrow. It can help diagnose blood disorders that involve problems with the rate of production of the RBCs.

- **Bone marrow aspiration and biopsy.** These tests check for problems with the production of blood cells. With a bone marrow aspiration, a needle is inserted into a bone to collect a sample of the bone marrow fluid and cells. With a bone marrow biopsy, a needle is inserted into a bone to collect a small sample of bone marrow tissue. The tests can be done separately. But they are often done together.