

Blood Tests for Clotting Disorders

Several blood tests are used to find out why the blood does not clot normally (Picture 1). Your child may have one or more of these tests:

APTT (Partial Thromboplastin Time)

This test is used as a screening test to evaluate bleeding disorders. It measures the number of seconds it takes for a fibrin clot to form in a blood sample. Fibrin is the major protein that maintains a clot. Several substances are added to the sample. Then it is examined to see whether certain factors are missing. The APTT can be high for a number of reasons but the most common causes are long-term antibiotic use and viral illness.

PT (Prothrombin Time)

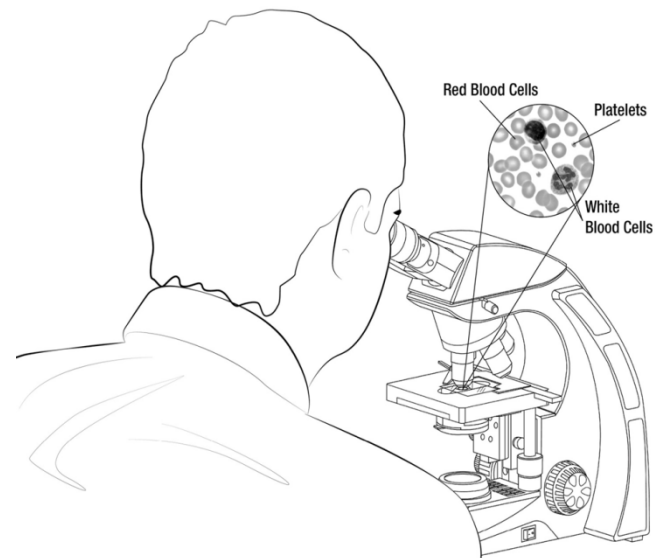
This test measures the activity of certain clotting factors not identified in an APTT test. It is also used to monitor patients on blood thinner medicines such as Coumadin.

von Willebrand antigen test

This test measures the amount of von Willebrand factor in the blood. This helps rule out certain hereditary bleeding problems.

Ristocetin (Rist oh SEE tin) co-factor

This test measures the activity level of one of the von Willebrand factors. The ristocetin co-factor helps blood cells clump together to form a clot. Stress, birth control pills, inflammation, pregnancy and exercise can cause the test results to show a false high.



Picture 1 How blood looks under a microscope.

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Factor assays

Factor assays measure the amount of specific clotting factors in the blood.

Platelets

Platelets are small, sticky, oddly-shaped cells that are made in the bone marrow. They circulate in the bloodstream. Platelets are needed to form a plug at the site of a blood vessel injury. They are essential to blood clotting.

Platelet aggregation testing

Platelet aggregation (ag re GAY shun) is the ability of the platelets to clump or attach to each other. Certain substances are added to a blood sample to stimulate clumping. These tests measure the rate and degree to which the platelets in a sample clump after these substances are added.

Multimers

This test measures the size and weight of the von Willebrand protein. It is used to determine the type of von Willebrand's Disease.

Platelet function analysis

This test measures the amount of time it takes to form a platelet plug that will occlude (block) the opening of a tube or the closure time. This test is similar to the platelet aggregation testing.

If you have any questions, please ask your child's doctor or nurse.

For directions to the nearest Laboratory Service Center, please call Laboratory Services at (800) 934-6575 or visit NationwideChildrens.org/Lab.