

Blood Smear



Does this test have other names?

Peripheral blood smear, blood smear analysis, peripheral blood film, smear, manual differential, manual DIFF

What is this test?

A blood smear is a type of blood test. It looks at the appearance, number, and shape of your red and white blood cells and platelets to see whether they are normal. A blood smear can also detect parasites in your blood.

It is now more common to have blood analyzed by a computer. But blood smears may still be routinely done to look for certain diseases. A blood smear is checked by a lab scientist (pathologist) or healthcare provider who specializes in blood or infectious diseases. These specialists look at the blood cells on a slide. Sometimes a blood smear shows information that's not found by a computer.

Why do I need this test?

You may need this test if you have any of the problems below:

- Low levels of red blood cells (anemia)
- Jaundice, a condition that causes your skin and eyes to turn yellow
- Feeling tired or dizzy all the time
- A fever that doesn't go away or keeps coming back, after travel to a developing country or contact with ticks
- Possible contact with a parasite that carries an infectious disease, such as malaria

Healthcare providers often use a blood smear to confirm the diagnosis for certain diseases. For example, if a child has bouts of severe, unexplained chest pain, the child might have sickle cell anemia. This is an inherited disease that can be identified through a blood smear.

You may also have this test to check your blood cell count if you have had chemotherapy. This test may help your healthcare provider see if the treatment is working.

What other tests might I have along with this test?

You may also have a complete blood count. This test looks at the size and number of platelets and red and white blood cells. Another test often done with a blood smear is a reticulocyte count. This is done by staining and counting the number of premature red blood cells. These are red blood cells that have left your bone marrow early.

You may also have a chemistry panel, or a blood chemistry test. This test measures substances, such as electrolytes, sugar, and protein, in your blood.

You may also have a bone marrow biopsy. This is a test that looks at the blood cells inside your bone marrow. Bone marrow is a spongy substance inside some large bones. Bone marrow makes blood cells. For this test, the healthcare provider collects a tiny amount of bone marrow with a needle.

What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider

what your test results mean for you.

The results of a blood smear might include the number, size, and shape of your red blood cells. The results also might tell your healthcare provider the number and type of your white blood cells, the number of platelets, or even if you have a parasite.

Your test results will be either normal or abnormal. Your healthcare provider will interpret that result based on your symptoms, the diagnosis your provider suspects, or the treatment you are having. A blood smear can be used to help diagnose or check on many conditions, such as:

- Anemia
- Jaundice
- Sickle cell disease
- Thrombocytopenia
- Malaria
- Sudden kidney failure
- G6PD deficiency
- Certain cancers

The accuracy of the results depends on the skill and experience of the person looking at your blood smear. Talk with your healthcare provider about the results.

How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

Does this test pose any risks?

Having a blood test with a needle carries some risks. These include bleeding, infection, bruising, and feeling lightheaded. When the needle pricks your arm or hand, you may feel a slight sting or pain. Afterward, the site may be sore.

What might affect my test results?

Ask your healthcare provider if you can eat or drink before the test.

How do I get ready for this test?

You don't need to prepare for this test. But be sure your healthcare provider knows about all the medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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