TEST

Platelet count

A platelet count measures the blood cells that help stop bleeding

WHAT IT MEASURES
Number of platelets in a given volume of blood

SAMPLE
Blood

FASTING NEEDED?
No

HOW LONG IT TAKES
Usually less than five minutes

RESULTS IN
Same day or several days, based on laboratory workflow

USED FOR
Screening, diagnosis, and monitoring

MAIN LIMITATION
Clumped platelets can cause a falsely low count

Overview

A platelet count measures how many platelets are in your blood. Platelets are small cell fragments made in the bone marrow. They gather at an injured blood vessel and help form a clot to stop bleeding.

The test is usually included in a complete blood count, or CBC. A CBC also measures red blood cells, white blood cells, and haemoglobin, the protein that carries oxygen.

A platelet count can show that your number is lower or higher than expected. It cannot identify the cause by itself. The result must be considered with your symptoms, medical history, medicines, and other blood test results.

A low platelet count is called thrombocytopenia . A high count is called thrombocytosis . These terms describe laboratory findings, not specific diseases.

Why the test is ordered

A platelet count may be ordered as part of a routine CBC, before some operations or

procedures, or during pregnancy. It is also used when a health professional needs to investigate unusual bleeding, bruising, or blood clots.

The test may help assess:

Repeat counts may be used to monitor a known condition or treatment. Trends over time are often more informative than one isolated result.

- Easy or unexplained bruising
- Frequent nosebleeds or bleeding gums
- Tiny red or purple spots under the skin
- Bleeding that takes longer than expected to stop
- Heavy menstrual bleeding
- A possible blood, bone marrow, immune, liver, or spleen condition
- The effects of an infection, medicine, cancer treatment, or other illness

Who should have the test

You may have a platelet count when a CBC is needed for routine care or to investigate particular symptoms. It may also be checked before a procedure where bleeding would matter.

Regular testing may be appropriate if you have a condition that can affect blood cell production or platelet removal. Examples include some bone marrow disorders, immune conditions, liver disease, or an enlarged spleen.

Certain medicines and treatments can also affect platelet numbers. These include chemotherapy and some medicines that influence the immune system or bone marrow. Testing schedules are based on the specific treatment and your clinical situation.

A platelet count is not usually used as a stand-alone screening test for everyone. It is most useful when included in a broader assessment.

How to prepare

No fasting is needed for a platelet count. You can usually eat, drink water, and have coffee as normal.

If other blood tests are being taken at the same time, their preparation instructions may be different. Follow the instructions given for the full set of tests.

Tell the person arranging the test about prescription medicines, over-the-counter products, and supplements. Do not stop a medicine unless the clinician responsible for it tells you to.

Heavy exercise can cause short-term changes in platelet numbers. If your result is being monitored closely, keeping your activity similar before each test may make comparisons easier.

What happens during the test

A platelet count usually uses blood drawn from a vein in your arm. A band may be placed around your upper arm, and the skin is cleaned before a small needle is inserted. The blood is collected in a tube containing a substance that prevents clotting.

The blood draw normally takes less than five minutes. The sample is sent to a laboratory, where an automated analyser counts the platelets.

If the analyser detects clumping or unusually large platelets, laboratory staff may examine the blood under a microscope. Another sample may be requested if the first one has clotted or gives an uncertain result.

Understanding your results

Your report will give the platelet count and the laboratory's reference range. The count is commonly reported as the number of platelets per microlitre or litre of blood.

Reference ranges and interpretation vary by laboratory, age, sex, pregnancy status, medicines, and clinical context. Use the range printed on your own report rather than comparing your result with an unrelated online range.

A low result can occur when the bone marrow is not making enough platelets, platelets are being destroyed or used faster than usual, or platelets are being held in an enlarged spleen. Infection, immune conditions, liver disease, medicines, pregnancy-related changes, and cancer treatment are among the possible explanations.

A high result may be a temporary response to infection, inflammation, bleeding, iron deficiency, surgery, or removal of the spleen. Less commonly, it can be linked to a bone marrow condition that produces too many blood cells.

The platelet count does not directly measure how well platelets work. You can have a normal count but impaired platelet function, including from certain medicines. Likewise, an abnormal count does not reveal its cause without further assessment.

What affects the results

Several factors can change the count or make it misleading even when the laboratory equipment is working correctly.

Platelet clumping is the most important laboratory issue. In some people, platelets clump when exposed to EDTA, the anti-clotting substance used in many blood tubes. The analyser may not count these clumps correctly, producing a falsely low result. This is called pseudothrombocytopenia.

A partially clotted sample can also appear falsely low because platelets have been used in the clot. A difficult blood draw or delay in mixing the tube may contribute.

Very large platelets may not be recognised correctly by some automated analysers. A blood film, which is a microscope examination of the sample, can help identify this problem.

Other influences include:

Iron deficiency can sometimes raise the platelet count. The count may return toward the person's usual level when the underlying deficiency is corrected.

- Pregnancy, which can cause a mild fall in platelet count
- Recent bleeding, surgery, infection, or inflammation
- Strenuous exercise, which may temporarily increase the count
- Recent platelet or blood transfusion
- Medicines that reduce production, increase destruction, or alter platelet function
- Intravenous fluids, which may temporarily dilute the blood
- Age and individual biological variation

Accuracy and limitations

Automated platelet counting is generally reliable when the sample is collected and processed correctly. It may be wrong when platelets clump, are unusually large, or are present in very low numbers.

A falsely low result can suggest a problem when none exists. To check this, the test may be repeated using a tube with a different anti-clotting substance, such as citrate, and the sample may be examined under a microscope.

The test can also miss a platelet problem. A normal count does not rule out poor platelet function, von Willebrand disease, or other causes of bleeding. If platelet function is the

concern, specialised clotting or platelet-function tests may be more useful.

An abnormal count is not specific to one condition. Many unrelated situations can produce similar results. Other CBC findings, a blood film, clotting tests, liver tests, iron studies, infection testing, or bone marrow tests may be needed, depending on the circumstances.

Risks and complications

A blood draw may cause brief discomfort, a small bruise, or minor bleeding where the needle entered. Some people feel light-headed or faint, but serious complications are uncommon.

What happens next

If the result is only slightly outside the laboratory range and you feel well, routine follow-up may involve repeating the count. This helps show whether the change was temporary, persistent, or caused by a sample problem.

A clearly abnormal or changing result may lead to a blood film and other tests chosen for your history and symptoms. Your clinician may also review recent infections, pregnancy, alcohol use, medicines, supplements, liver health, and previous blood counts.

Seek urgent medical advice for new unexplained bleeding, rapidly increasing bruising, blood in urine, or black stools.

Call emergency services for bleeding that will not stop, vomiting blood, a sudden severe headache, new weakness or confusion, or heavy bleeding with faintness or breathing difficulty. These symptoms need urgent assessment regardless of the latest platelet count.

Common questions

Can I drink coffee before a platelet count?

Yes. Coffee does not usually interfere with the count. If other tests are ordered at the same time, check whether they require fasting.

Does the time of day matter?

Usually not. Small biological changes can occur, but the test can generally be done at any time. For close monitoring, using a similar time and laboratory may make trends easier to compare.

Can I exercise beforehand?

Light activity is unlikely to matter. Strenuous exercise can temporarily change the count, so avoid an unusually hard workout before testing if the result is being monitored closely.

Can medicines affect my platelet count?

Yes. Some medicines change platelet production, destruction, or function. Give an up-to-date medicine and supplement list, but do not stop treatment on your own.

Why do I need the test repeated?

A repeat test can confirm whether the change is real. It may also rule out platelet clumping, a clotted sample, or a temporary change caused by illness, exercise, fluids, or transfusion.

Can I have bleeding problems with a normal platelet count?

Yes. The count measures platelet number, not how well platelets work. Other clotting or platelet-function tests may be needed if your symptoms suggest a bleeding problem.

Sources

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