CONDITION

Immune thrombocytopenic purpura

An immune condition that lowers the number of blood-clotting platelets and can cause bruising or bleeding.

WHAT IT IS
Autoimmune condition causing a low platelet count

BODY SYSTEM
Blood and immune system

MAIN SYMPTOMS
Easy bruising, pinpoint rash, nosebleeds, heavy periods

WHAT CAUSES IT
Immune attack on platelets, often without known trigger

HOW IT IS DIAGNOSED
Blood count, blood smear, and excluding other causes

MAIN TREATMENT
Monitoring, immune treatments, and platelet-raising medicines

CAN IT BE CURED?
Sometimes - spontaneous or treatment-related remission occurs

IS IT AN EMERGENCY?
Sometimes - heavy bleeding or neurological symptoms

LONG-TERM OUTLOOK
Many children recover; adults often need long-term monitoring

Overview

Immune thrombocytopenic purpura, usually called immune thrombocytopenia or ITP , is a condition in which the immune system attacks platelets. Platelets are small blood cells that help form clots and stop bleeding.

This causes a low platelet count, known as thrombocytopenia. Some people have no symptoms. Others develop easy bruising, tiny red or purple spots on the skin, or bleeding from the nose, mouth, or menstrual periods.

"Purpura" means purple-colored bleeding under the skin. The term remains part of the older name, idiopathic thrombocytopenic purpura, but not everyone with ITP develops purpura. "Idiopathic" means that no cause was known. Today, doctors understand that the immune system is involved, although the trigger is often still unclear.

A low platelet count does not always lead to serious bleeding. The risk is influenced by how low the count is, whether you are bleeding, your age, other health conditions, medicines, and activities that could cause injury.

Symptoms

ITP is sometimes discovered on a blood test done for another reason. When symptoms occur, they may include:

Petechiae do not fade when pressed because they are caused by blood leaking under the skin. They often appear on the lower legs but can occur elsewhere.

Blood in urine, vomit, or bowel movements can indicate more significant bleeding. Bleeding inside the brain is rare, but it is the most serious possible complication.

- Easy or unexplained bruising
- Petechiae, which are pinpoint red, purple, or brown spots under the skin
- Purpura, which are larger patches of bleeding under the skin
- Frequent or difficult-to-stop nosebleeds
- Bleeding from the gums or blood blisters inside the mouth
- Menstrual bleeding that is heavier or lasts longer than usual
- Bleeding that continues longer than expected after a cut, dental work, or surgery
- Tiredness, which some people with ITP report even without anemia

Causes and risk factors

ITP is an autoimmune condition. This means the immune system mistakenly targets the body's own cells. Antibodies and immune cells can destroy platelets, mainly in the spleen and liver. The immune process may also reduce how many platelets are produced in the bone marrow.

Most cases are primary ITP , meaning no separate underlying cause is found. Secondary ITP is associated with another condition or trigger, such as:

In children, ITP often begins after a viral infection and may improve within months. In adults, it is more likely to continue for longer, although remission can still occur.

Some medicines can cause low platelets through a different immune reaction. This can resemble ITP, so a careful medication history is important. Do not stop a prescribed medicine

without medical advice.

ITP is not contagious. Primary ITP is not usually inherited, and having a relative with ITP does not mean you will develop it.

- Lupus or another autoimmune condition
- HIV or hepatitis C
- Certain blood or lymphatic conditions
- Some infections
- Occasionally, an immune response following an infection

Diagnosis

There is no single test that confirms ITP. Diagnosis is based on finding a low platelet count and ruling out other explanations.

A complete blood count measures platelets, red blood cells, and white blood cells. In typical ITP, the platelet count is low while the other blood cell counts are usually normal.

A blood smear allows the blood cells to be examined under a microscope. It can help confirm that the platelet result is genuine and look for abnormal blood cells that may suggest another cause. Platelets can sometimes clump in a blood sample, producing a falsely low automated result.

Your assessment may also include questions about bleeding, recent illnesses, pregnancy, alcohol use, supplements, and medicines. A physical examination may look for skin or mouth bleeding and signs of an enlarged spleen, liver condition, infection, or another underlying problem.

Tests for HIV, hepatitis C, or other conditions may be offered according to your history and circumstances. A bone marrow test is not routinely needed when the findings are typical of ITP. It may be considered when blood counts or symptoms are unusual, the diagnosis is uncertain, or another bone marrow condition needs to be excluded.

Treatment and management

Not everyone with ITP needs immediate treatment. If you have little or no bleeding and the platelet count is considered safe for your situation, regular blood tests and observation may be appropriate.

Treatment decisions are based on more than a number. Bleeding, age, lifestyle, other medical conditions, pregnancy, planned procedures, and medicines that affect clotting all matter. The goal is usually a platelet count that prevents important bleeding, not necessarily a completely normal count.

Corticosteroids like prednisone or hydrocortisone reduce immune activity and are commonly used as initial treatment when treatment is needed. They are generally used for a limited period because longer exposure can cause problems such as mood or sleep changes, high blood sugar, high blood pressure, infections, and weaker bones.

Intravenous immunoglobulin, or IVIG, is an infusion of antibodies collected from donated plasma. It can raise platelets more quickly, but its effect is often temporary. It may be used when a faster response is needed, including before some procedures or when there is significant bleeding.

For ITP that continues or returns, options may include:

Splenectomy can produce a lasting response in some people, but it creates a lifelong increase in the risk of certain infections and may affect blood-clot risk. Vaccination and infection precautions are important before and after this operation.

Life-threatening bleeding requires emergency hospital treatment. This may include platelet transfusions together with treatments that slow immune destruction and raise the platelet count. Transfused platelets alone may be destroyed quickly, so they are usually part of a wider emergency plan.

- Thrombopoietin receptor agonists, which encourage the bone marrow to make platelets
- Rituximab, which reduces certain immune cells involved in antibody production
- Fostamatinib, which blocks part of the immune pathway that destroys platelets
- Splenectomy, an operation to remove the spleen

Complications

The main complication is bleeding. Most bleeding involves the skin, nose, mouth, or menstrual periods. Bleeding in the digestive tract or brain is much less common but more serious.

Repeated heavy menstrual bleeding can cause iron deficiency and anemia. Anemia means there are not enough healthy red blood cells to carry oxygen effectively.

ITP can also be associated with an increased risk of blood clots, despite the low platelet count. Some treatments may add to this risk. Treatment side effects, including infection after immune-suppressing therapy or splenectomy, also need ongoing attention.

Prevention

ITP usually cannot be prevented because the immune reaction often has no identifiable trigger.

If you already have ITP, you may be able to reduce bleeding risk. Avoiding high-impact activities may be advised when platelets are very low. Use protective equipment for suitable sports, maintain careful dental hygiene, and tell your dental or surgical team about ITP before a procedure.

Aspirin, ibuprofen, naproxen, blood thinners like warfarin or apixaban , and some supplements can affect bleeding or platelet function. Do not start or stop these without checking with the clinician responsible for your care, especially if they were prescribed to prevent a heart attack, stroke, or blood clot.

Living with it and what to expect

The course of ITP differs between children and adults. Many children improve without long-term treatment, especially when ITP follows an infection. Adults are more likely to have persistent or chronic ITP, but some enter remission.

ITP is described as newly diagnosed during the first three months, persistent when it lasts between three and twelve months, and chronic after twelve months. Chronic does not necessarily mean constant symptoms or continuous treatment. Platelet counts may rise and fall, and treatment may only be needed at certain times.

Follow-up usually involves blood tests and discussion of bleeding symptoms, treatment effects, work, exercise, travel, and planned medical procedures. Testing may become less frequent when the platelet count and symptoms are stable.

Most people can continue school, work, exercise, travel, and family life. Activities may need temporary adjustment when platelets are very low or bleeding is active. Contact sports and activities with a high risk of head injury deserve particular caution.

Pregnancy is possible with ITP and is often managed successfully. Platelet counts can change during pregnancy, so coordinated monitoring is important. Treatment may be needed to support a safe delivery or spinal or epidural anesthesia.

When to get medical help

Arrange routine medical advice if you develop new unexplained bruises, petechiae, repeated nosebleeds, bleeding gums, or menstrual bleeding that is heavier than usual. Contact your care team if known ITP symptoms are increasing, a treatment is causing side effects, or you start a new medicine or supplement.

Tell your care team in advance about pregnancy, dental treatment, surgery, or an invasive procedure. You may need a recent platelet count and a plan to limit bleeding.

Seek urgent medical care for bleeding that is heavy, keeps restarting, or does not stop with firm pressure. Urgent assessment is also appropriate for blood in urine, black or bloody bowel movements, vomiting or coughing up blood, or menstrual bleeding accompanied by faintness, weakness, or shortness of breath.

Call emergency services for:

These symptoms do not automatically mean ITP has caused internal bleeding, but they require prompt assessment.

- A sudden severe headache, confusion, unusual drowsiness, seizure, weakness, or trouble speaking
- A significant head injury when you have a very low platelet count or active ITP
- Bleeding that is severe or cannot be controlled
- Collapse, severe breathing difficulty, or signs of shock such as cold, clammy skin

Common questions

Is ITP a type of cancer or leukemia?

No. ITP is an immune condition, not a cancer. Leukemia and other bone marrow conditions can also lower platelets, which is why the blood count, blood smear, symptoms, and examination are used to distinguish between possible causes.

Can ITP go away completely?

Yes, sometimes. Many children recover, and some adults enter remission with or without treatment. Other adults have long-term ITP that needs monitoring or occasional treatment. A response to treatment does not always mean the condition is permanently gone.

How low is a dangerous platelet count?

There is no single number that predicts bleeding for everyone. The risk generally rises as the platelet count falls, but current bleeding, age, medicines, injuries, and other conditions are also important. Follow the action plan given for your own results rather than comparing counts

online.

Can I exercise with ITP?

Many people can exercise. The safest activity depends on your platelet count, bleeding symptoms, and injury risk. Walking, swimming, and other low-impact activities may be suitable when contact sports are not. Activities with a high chance of collision, falling, or head injury may need to be paused when counts are low.

Can I take ibuprofen or aspirin if I have ITP?

These medicines can interfere with platelet function and may increase bleeding. Ask before using them. Do not stop prescribed aspirin or blood-thinning medicine on your own, because stopping can increase the risk of a heart attack, stroke, or blood clot.

Can ITP come back after treatment?

Yes. Platelets may fall again after an initial response, particularly when a temporary treatment wears off. A falling count does not always require immediate treatment if there is no important bleeding, but it should be reviewed according to your follow-up plan.

Sources

- American Society of Hematology 2019 guidelines for immune thrombocytopenia , Blood Advances , 2019
- Updated international consensus report on the investigation and management of primary immune thrombocytopenia , Blood Advances , 2019
- Immune Thrombocytopenia , Cooper and Ghanima, The New England Journal of Medicine , 2019
- Immune Thrombocytopenia , National Heart, Lung, and Blood Institute
- Immune thrombocytopenia , NHS