IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP)

Idiopathic thrombocytopenic purpura (ITP) is a bleeding condition in which the blood doesn’t clot as it should. This is due to a low number of blood cells called platelets (PLATE-lets).

Platelets are also called thrombocytes (THROM-bo-sites), and they’re made in your bone marrow (along with other kinds of blood cells). Platelets circulate through the blood vessels and help stop bleeding by sticking together (clotting) to seal small cuts or breaks.

Idiopathic (id-ee-o-PATH-ick) means that the cause of the disease or condition isn’t known. Thrombocytopenic (throm-bo-cy-toe-PEE-nick) means there is a lower-than-normal number of platelets in the blood. Purpura (PURR-purr-ah) are purple bruises caused by bleeding under the skin. More extensive bleeding can create a three-dimensional mass called a hematoma (he-ma-TO-ma).

What Causes Idiopathic Thrombocytopenic Purpura?
In most cases, it’s believed that the body’s immune system causes idiopathic thrombocytopenic purpura (ITP). Normally, the immune system makes antibodies to fight off germs or other harmful things that enter the body. In
ITP, however, the immune system treats your own platelets as if they were invaders in the body, attacking and destroying them.

The reason why the immune system decides to attack its own platelets isn’t known.

Children who get the acute (temporary) type of ITP often have had a recent viral infection. It’s possible that the infection somehow "triggers" or sets off the immune reaction that leads to ITP in these children. ITP in adults, on the other hand, doesn’t seem to be linked to infections.

**Who Is At Risk for Idiopathic Thrombocytopenic Purpura?**
Both children and adults can develop idiopathic thrombocytopenic purpura (ITP).

Children usually get the acute (temporary) type of ITP. This type of ITP often develops after an infection caused by a virus. Adults tend to get the chronic (long-lasting) type of ITP. Women are 2 to 3 times more likely than men to get chronic ITP.

ITP is a fairly common blood disorder, with 50 to 150 new cases per every 1 million people each year; about half of these cases are in children. However, the number of cases of ITP is increasing because routine blood tests that show a low platelet count are being done more often.

*You can’t catch ITP from another person.*

**What Are the Signs and Symptoms of Idiopathic Thrombocytopenic Purpura?**
Having a low platelet count doesn’t cause symptoms. The bleeding caused by a low platelet count may have the following signs or symptoms:

- Pinpoint red spots on the skin (frequently the legs) that can often be found in groups and may look like a rash. The spots, called petechiae, are due to bleeding under the skin.

- Bruising or purplish areas on the skin or mucous membranes (such as in the mouth) due to bleeding under the skin. The bruises may occur
for no apparent reason. This type of bruising is called purpura. More extensive bleeding can create a three-dimensional mass called a hematoma.

- Nosebleeds or bleeding from the gums (for example, when dental work is done).
- Blood in the urine or stool (bowel movement).

Any kind of bleeding that’s hard to stop could be a sign of ITP. This includes heavy menstrual bleeding in women.

Bleeding in the brain is rare, and the symptoms of bleeding in the brain may vary in severity.

A low number of platelets won’t cause pain, fatigue (tiredness), difficulty concentrating, or any other symptoms.

**How Is Idiopathic Thrombocytopenic Purpura Diagnosed?**

To diagnose idiopathic thrombocytopenic purpura (ITP), your doctor must first be certain that your low platelet count isn’t caused by other conditions, such as HIV infection or lupus, or by medicines (for example, chemotherapy drugs or aspirin). Your doctor will ask about your medical history, do a physical exam, and order blood tests.

Your medical history includes information about:

- Your signs and symptoms of bleeding
- Illnesses you have that could lower your platelet count or cause bleeding
- Medicines or any other over-the-counter supplements or remedies you take that could cause bleeding or lower your platelet count

Your doctor will give you a physical exam and look for signs of bleeding and infection. He or she also will order blood tests to measure the platelet count in your blood. These tests usually include:
A complete blood count. This test shows the numbers of different kinds of blood cells, including platelets, in a small sample of your blood. In ITP, the red and white blood cell counts are normal.

- A blood smear. During this test, some of your blood is put on a slide. A microscope is then used to look at your platelets and other blood cells.
- Some laboratories may be able to test for the antibodies that attack platelets.

If blood tests show that you have a low number of platelets, your doctor may need to order more tests to confirm a diagnosis of ITP. For example, bone marrow tests may be used to see if the large cells that make platelets look normal. (These large cells are called megakaryocytes.)

Some people with mild ITP have few or no signs of bleeding. In that case, they might be diagnosed only after a blood test done for another reason shows that they have a low number of platelets.

**How Is Idiopathic Thrombocytopenic Purpura Treated?**

Treatment for idiopathic thrombocytopenic purpura (ITP) is based on how much and how often you’re bleeding and your platelet count. Medicines are often used as the first course of treatment. Treatments used for children and adults are similar.

Adults with ITP who have very low platelet counts or problems with bleeding are usually treated. Adults who have milder cases of ITP may not need any treatment, other than monitoring their symptoms and platelet counts.

The acute (short-term) type of ITP that occurs in children often goes away within a few weeks or months. Children who have bleeding symptoms, other than merely bruising (purpura), are usually treated. Milder cases in children may not need treatment other than monitoring and followup to be sure platelet counts return to normal.

**Medicines**

If treatment is needed for adults or children who have ITP, medicines are usually used first. Corticosteroids (cor-ti-co-STEER-roids), such as
prednisone, are commonly used to treat ITP. These medicines, called steroids for short, help raise the platelet count in the blood by lowering the activity of the immune system. However, steroids have a number of side effects, and some people relapse (get worse) when treatment ends.

Some medicines used to help raise the platelet count are given through a needle in a vein. These medicines include immune globulin and anti-Rh (D) immunoglobulin.

Experimental medicines may be tried if these treatments don’t help. Medicines may be used along with a procedure to remove the spleen, called splenectomy (splee-NECK-tuh-mee).

**Removal of the Spleen (Splenectomy)**
If necessary, the spleen will be removed surgically. This organ is located in the upper left abdomen and is about the size of a golf ball in children and a baseball in adults. If ITP hasn’t responded to steroids, removing the spleen will reduce the destruction of platelets, but it also may make you more likely to get certain types of infections. If your spleen is removed, discuss with your doctor steps you can take to help avoid these infections and the symptoms to watch out for.

**Other Treatments**

*Platelet Transfusions*
Some people with ITP who have severe bleeding may need to have platelet transfusions and be hospitalized. Some will need a platelet transfusion before having surgery. For a platelet transfusion, donor platelets from a blood bank are injected into the recipient's bloodstream to increase the platelet count for a short time.

*Treating Infections*
Some types of infections can briefly lower a person’s platelet count. If a person with ITP has an infection that can lower the number of platelets, treating the infection may help raise the platelet count and reduce bleeding problems.
Stopping Medicines
If a person who has ITP is taking medicine that can lower the number of platelets or cause bleeding, stopping the medicine can sometimes help raise the platelet count or prevent bleeding. For example, aspirin and ibuprofen are common medicines that reduce platelet function and increase the chance of bleeding. If you have ITP, you shouldn’t use these medicines.

How Can Idiopathic Thrombocytopenic Purpura Be Prevented?
You can’t prevent idiopathic thrombocytopenic purpura (ITP) from occurring, but you can prevent its complications.

- Avoid medicines such as aspirin or ibuprofen that can affect your platelets and increase your risk for bleeding.
- Protect yourself from injuries that can cause bruising or bleeding.
- Seek treatment right away for any infections you may develop. Report any symptoms of infection, such as a fever, to your doctor. This is especially important for adults or children with ITP who have had their spleens removed.

Living With Idiopathic Thrombocytopenic Purpura
If you have idiopathic thrombocytopenic purpura (ITP):

- Stay away from medicines that may affect platelets and increase your chance of bleeding. Common examples are aspirin or ibuprofen. Be careful when using over-the-counter medicines, as many of them do contain aspirin or ibuprofen. Tell your doctor about all of the over-the-counter medicines you take, including vitamins, supplements, or herbal remedies, as they could contain substances that increase your risk of bleeding.
- Avoid injuries that can cause bruising and bleeding. Take precautions such as regular use of seatbelts and wearing gloves when working with knives and other tools. If your child has ITP, protecting him or her from injuries, especially head injuries that could cause bleeding in the brain, is important. Ask your child’s doctor whether you need to restrict your child’s activities.
- Find a doctor who is familiar with treating ITP patients. Hematologists are doctors who specialize in diagnosing and treating blood diseases and disorders.
Watch for symptoms of infection, such as fever, and report them to your doctor promptly. If you have had your spleen removed, you may be more likely to become ill from certain types of infections. People who have had a splenectomy should receive certain vaccinations to prevent these infections. Your doctor can tell you which vaccinations you should have.

**Idiopathic Thrombocytopenic Purpura in Pregnancy**

In women who are pregnant and have ITP, the ITP usually doesn’t affect the baby. However, some babies born to mothers with ITP are born with or develop low numbers of platelets soon after birth. Their platelets almost always return to normal without any treatment. Treatment can speed the recovery in the few babies whose platelet counts are very low.

Treatment for ITP during pregnancy depends on the woman’s platelet count. If treatment is needed, the doctor will take a close look at the possible effects of the treatment on the unborn baby.

Women who have milder cases of ITP can usually go through pregnancy without treatment. Pregnant women with very low platelet counts or a lot of bleeding are more likely to have serious heavy bleeding during delivery or afterward. To prevent serious bleeding, these women are usually treated.

**Key Points**

- Idiopathic thrombocytopenic purpura (ITP) is a bleeding condition in which the blood doesn’t clot as it should. This is due to a low number of blood cells called platelets.
- Platelets circulate through the blood vessels and help stop bleeding by sticking together (clotting) to seal small cuts or breaks.
- In most cases, the body’s immune system is thought to cause ITP. Normally your immune system helps your body fight off infections and diseases, but if you have ITP, your immune system attacks and destroys its own platelets—for an unknown reason.
- ITP can affect children and adults of all ages. More women than men get ITP.
- There are two types of ITP. Acute ITP is usually a short-term illness that usually affects children and often occurs after a viral infection. Most children get well quickly without any treatment. Adults most
often have long-lasting (chronic) ITP. Symptoms can vary a great deal, and some adults who have mild ITP don’t need treatment.

- People with ITP may have signs of bleeding, such as bruises (purpura) that appear for no reason or tiny red dots (petechiae) that are visible on the skin.
- Bleeding in ITP also occurs in the form of nosebleeds, bleeding gums, heavy menstrual bleeding, or other bleeding that’s hard to stop. Bleeding in the brain as a result of ITP is very rare, but can be life threatening when it occurs.
- ITP is diagnosed based on your medical history, a physical exam, and results from blood tests.
- Treatment depends on the type and severity of the illness. Those who have more severe symptoms are usually first treated with medicines such as steroids.
- The spleen is sometimes removed if treatment with medicine fails to keep the platelet level high enough to prevent bleeding.
- You can’t prevent ITP, but you can prevent its complications. Avoid medicines that can affect your platelets (such as aspirin and ibuprofen), protect yourself from injuries that can cause bruising or bleeding, and seek treatment if any signs of infection develop.

Additional Information

- Platelet Disorder Support Association - http://www.pdsa.org/itp-information/index.html

Source: NIH

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