



BI-LO Charities Children's Cancer Center

## Immune or Idiopathic Thrombocytopenia Purpura (ITP)

### What Is ITP?

Immune or idiopathic thrombocytopenia purpura (ITP) is characterized by bruising that results from a decrease in the platelet count. For some reason, the body develops an antibody that begins to destroy the platelets that the body manufactures.

It is not known why the body does so, but the process often begins after a viral illness. One line of thought is that the body makes an antibody that attacks the virus, and then this antibody begins attacking and destroying platelets as well.

People often confuse ITP with leukemia; however, with ITP the platelets are the only part of the blood affected, while the hemoglobin and white cells remain normal. In most cases of leukemia, all blood cells are affected. Sometimes a bone marrow exam is necessary to distinguish between ITP and leukemia, but usually this test is not needed.

Occasionally ITP can be the forerunner of a more serious illness such as lupus erythematosus. We usually test for lupus in children over 5 years of age.

### How Is ITP Treated?

Regardless of the treatment used, in about 95 percent of cases the ITP goes away within about six months. In about 5 percent of cases, the condition becomes chronic, meaning it lasts longer than six months.

Treatment focuses on trying to increase the platelet count to protect the patient against severe bleeding episodes, such as bleeding inside the head. If serious bleeding occurs with ITP, it usually is within the first days or weeks of the diagnosis.

### Treatment Options

**Watchful waiting:** No active treatment is done. The primary risk with this approach is the risk of serious bleeding while the platelet count is low. It is important to prevent injury to the child while the body recovers from the low platelet count.

**IVIG (intravenous immunoglobulin):** This treatment causes an increase in the platelet count within one to three days in about 80 percent of cases. The exact mechanism is

unknown, but it is believed that the IVIG (which also is an antibody) blocks the antibody that attacks the platelets so the platelets are not destroyed.

In about 75 percent of cases, one course of IVIG is sufficient; in 25 percent of cases, additional courses of IVIG are given over several weeks to prevent the platelet count from dropping to dangerously low levels. The most common side effect of IVIG is severe migraine-type headaches that occur one to three days after receiving the IVIG.

**Rho (D) Immune Globulin:** This is a form of IVIG that functions to temporarily increase the platelet count. It is effective only in people who are RH+ (A+, B+ and O+ blood types). This preparation is useful in children as it keeps the platelet count up while the body recovers.

**Steroids:** Prednisone or Decadron may be given by mouth to help raise the platelet count. Steroids are thought to work by slowing the removal of platelets by the spleen and temporarily lowering the level of anti-platelet antibodies. Steroids also may stabilize the blood vessels, lowering the risk of bleeding. Blood counts usually are checked weekly for six to eight weeks.

**Splenectomy:** Removal of the spleen is considered a last resort for treatment of ITP in children. Splenectomy is used much more often in adults than children.

The spleen is one of the organs in the body that works to remove waste and foreign bodies. Normally, platelets pass through the spleen without problems. In patients with ITP, however, the spleen mistakenly filters out the platelets that are coated with the antibodies. Some studies have suggested that the anti-platelet antibody is made in the spleen.

Splenectomy is not done for treatment of ITP in children under the age of 5 because removal of the spleen can result in increased susceptibility to certain serious infections, including sepsis and meningitis. If a splenectomy is performed, it is crucial that the child receive prompt medical attention in the event that he or she develops a fever or shows other signs of infection.

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## **Activity Limitations**

Patients with ITP sometimes will need to limit their activities in order to prevent a serious bleeding event. Bleeding inside the head, chest or abdomen can occur if the child suffers an injury to those areas.

When the platelet count is below 50,000, it is best to avoid bicycle riding, climbing trees or jungle gyms, contact sports such as football or soccer, diving, skating, roller-blading, or skateboarding. Patients with ITP always should wear seat belts in motor vehicles, especially when the platelet count is low.