

Immune Thrombocytopenia (ITP)

What is ITP?

Immune thrombocytopenia is a medical term for an immune condition causing a shortage of platelets (thrombocytopenia) and bruising (purpura).

What is the cause of ITP?

ITP is an autoimmune disease in which the immune system mistakes the platelets as being foreign and destroys them. It can follow a virus, vaccination or certain medications, but for most people the cause is unknown.

ITP that arises suddenly is known as acute ITP, if the platelet count remains low after three months it will be called persistent ITP, and if the platelet count has not returned to normal after 12 months it will be called chronic ITP. The severity of the condition is noted by adding the term severe or mild. For example, someone with chronic severe ITP will have a troublesome condition with a very low platelet count for over a year.

How is ITP diagnosed?

ITP is usually diagnosed by a blood test which shows that the platelet count is low, and that the structure of platelets, red blood cells and white blood cells all look normal under a microscope.

A low platelet count can be caused by a number of other conditions so a number of blood tests will also be requested to check for other causes of low platelets such as liver disease and viral infections including HIV.

A bone marrow biopsy may be taken at a later stage if the ITP continues. A small sample of bone marrow will be taken under local anaesthetic and examined under the microscope. Additional blood tests may be taken at this time to check for rare clotting or immune diseases that can look similar to ITP. If the bone marrow looks normal, with the usual or higher number of platelet parent cells (megakaryocytes) and other blood tests are normal, then the doctor will diagnose ITP.

What are platelets?

There are three types of blood cell which are all formed in the bone marrow; red cells, white cells and platelets. Platelets, which are small and sticky and circulate in the bloodstream, provide the initial plug to stop bruising and bleeding after an injury, and stop blood leaking from blood vessels. A blood sample is taken to measure the circulating platelets, and a normal platelet count is 100 to 400 ($\times 10^9/l$). Anyone with a count less than 100 would be considered thrombocytopenic (i.e. short of platelets). Many people with ITP have a platelet count in single figures, and on rare occasions there are not enough circulating platelets to be counted. The number of platelets circulating in our bodies fluctuates all the time, and thus no two consecutive platelet counts are likely to be exactly the same either in a healthy person or in someone who has ITP.

What is the difference between ITP and hæmophilia?

Hæmophilia is inherited and permanent; ITP is not inherited, and can go into remission. Hæmophilia patients are deficient in one of the clotting factors which act together to form a blood clot. ITP patients are short of platelets which work independently as the initial plug to stop blood leakage, but the rest of the clotting mechanism works normally.

What is the incidence of ITP?

In the UK about 3,000 to 4,000 of the population have ITP at any one time, and it is not more common in any particular racial or ethnic group.

What are the symptoms of ITP?

Some people with ITP, especially those with a count over 50, may have no symptoms at all, and their ITP is only noticed during a routine blood test. Even people with very low counts, can sometimes have few symptoms.

Common symptoms are petechiae (pin prick rash of blood spots), bruising, nosebleeds, gum bleeds, black mouth blisters, fatigue, heavy periods.

Rare symptoms are blood in the eyes, bleeding from the ears, blood in the urine, bleeding from the stomach, bleeding into the brain.

How is ITP treated?

Some adults with mild ITP may not need any treatment, but will be monitored with occasional blood tests. There is no cure for ITP and treatment is used to raise the platelet count to counteract symptoms.

First line treatments include steroids and/or antibody therapy (usually Immunoglobulin which is also known as IVIG).

Second line treatments include medicines such as azathioprine, ciclosporin, cyclophosphamide, vinca alkaloids, danazol, dapsone, rituximab, eltrombopag, romiplostim, mycophenolate mofetil and more rarely removal of the spleen (splenectomy).

Tranexamic acid may be used to reduce bleeding after dental extractions. Hormone preparations and/or tranexamic acid may be prescribed to women having heavy periods.

Platelet transfusions may be used to stem active bleeding or during surgery, but they are ineffective as a treatment for ITP as the immune system destroys transfused platelets as quickly as the body's own platelets.

Do I need to let you know if I am having a procedure/surgery?

If a procedure (e.g. biopsy, dental extraction) or surgery is planned please inform us so we can arrange for you to have a platelet count check and any necessary treatment and provide a plan.

Do I need to avoid any medication or over the counter preparations?

It is important to avoid drugs that may affect how your platelets work including non steroidal anti inflammatory drugs (NSAIDs) and other anti platelet drugs e.g. ibuprofen, aspirin, clopidogrel. Use of drugs which affect blood clotting should also be discussed with your haematologist including heparin, warfarin and rivaroxaban. Where these drugs are necessary prior to, or following, diagnosis we will consider whether to continue the medication or advise a different medication or approach. Before commencing any over the counter preparations including herbal remedies please let us know.

When to seek help?

You should contact the hospital in the following circumstances:

- A prolonged (over 30 minutes) nosebleed which will not stop despite pinching the nose
- prolonged gum bleeding
- blood in the faeces or urine
- a heavy blow to the head
- persistent or severe headache with loss of vision
- vomiting or drowsiness.

Contact details

If you have any questions or concerns, please contact ITP Nurse Specialist 020 7188 7188 bleep 3022 or Haematology Day unit 020 7188 2722 (Monday to Friday, 9am to 5pm). Out of hours, in an emergency please contact Haematology registrar on call via switchboard 020 7188 7188.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets.

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints)

e: complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices – Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

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t: 0800 731 0319 **e:** members@gstt.nhs.uk

w: www.guysandstthomas.nhs.uk/membership

Leaflet number: 4326/VER1

Date published: December 2016

Review date: December 2019

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