

Thrombocytopenia and myeloma

Symptoms and complications Infosheet

This Infosheet explains what thrombocytopenia is, what causes it, what its symptoms are, how it is diagnosed, monitored and treated and some tips for self-management.

Thrombocyte is another word for platelet, and “penia” means “lack” or “deficiency”. Thrombocytopenia means “not enough platelets”.

What are platelets and what do they do?

Platelets are a type of blood cell. They are one of three types of blood cell that circulate in your blood (red blood cells, white blood cells and platelets).

Platelets are small cells whose main role is to stop bleeding when a blood vessel is cut or damaged. The platelets clump together, and along with special blood chemicals (clotting factors) they form a “clot” or plug which closes up the hole in the blood vessel.

What is thrombocytopenia and what are its effects?

The normal number of platelets (in adults) is between about 150 million and 400 million per millilitre of blood. This is often written as

150 x 10⁹/L to 400 x 10⁹/L. A person has thrombocytopenia if they have less than 150 million platelets per millilitre of blood. Between 150 and 100 million, there may not be any symptoms. Below 100 million you may have symptoms, which all involve bleeding (escape of blood from blood vessels) or bruising (small escapes of blood into the tissues under the skin).

What causes thrombocytopenia?

Blood cells are made in the bone marrow. In myeloma, abnormal plasma cells multiply and spread within the bone marrow, eventually crowding out the normal blood cells and preventing the bone marrow from working properly. This means the bone marrow produces fewer blood cells, including platelets.

Thrombocytopenia can also occur as a side effect of some anti-myeloma treatments including thalidomide, bortezomib (Velcade[®]), lenalidomide (Revlimid[®]), cyclophosphamide and melphalan.

What are the symptoms of thrombocytopenia?

Mild thrombocytopenia does not always cause symptoms. Some of the more common signs or symptoms of moderate to severe thrombocytopenia include:

- Spontaneous bleeding in the mouth and gums
- Easy or excessive bruising
- Nosebleeds
- A red pinpoint rash (petechiae)
- Prolonged bleeding from cuts

Blood in stools (poo), urine or vomit can be a sign of spontaneous or internal bleeding which can lead to a medical emergency, and you should seek medical attention immediately if this happens.

How is thrombocytopenia diagnosed and monitored?

Thrombocytopenia is diagnosed through a routine blood test called a 'full blood count'. This measures levels of platelets, and other blood cells, and these measurements are then compared against a normal range of values.

Your platelet levels will be monitored regularly through routine blood tests – your doctor and nurse will be checking regularly for signs of thrombocytopenia.

How is thrombocytopenia treated?

Thrombocytopenia as a complication of the myeloma itself normally begins to improve with anti-myeloma treatment. As treatment begins to bring your myeloma under control, your bone marrow is often able to recover and will start producing normal amounts of platelets and other blood cells.

If thrombocytopenia is a side effect of anti-myeloma treatment, platelet levels will usually improve during the non-treatment days of your treatment cycle. However, in some cases, particularly if thrombocytopenia is severe, it may be necessary to temporarily reduce your dose or postpone treatment until your platelet levels begin to return to normal.

If thrombocytopenia is graded as severe or you have signs of bleeding, you may require a platelet transfusion.

Some tips for self-management

You should be vigilant for the signs and symptoms of thrombocytopenia and report them immediately to your doctor or nurse, even if this is not during your usual clinic times.

Some other self-management tips include:

- Avoid activities that can result in bruising or bleeding e.g. contact sports, body piercing or tattooing
- Take care when brushing your teeth to avoid bleeding of the gums e.g. use a soft toothbrush and take care when flossing
- Take extra care not to cause cuts or wounds to the skin
- Nonsteroidal anti-inflammatory drugs (NSAIDs) including aspirin and ibuprofen are painkillers which have an anti-platelet effect. They have an effect on the kidneys as well so are **not recommended** for myeloma patients
- Limit your alcohol intake
- Some herbal remedies can affect platelets. All myeloma patients should check with their medical team before taking any herbal remedies, and this is also the case if you have thrombocytopenia

Summary

Thrombocytopenia is a condition where you have lower than normal platelets in the blood. It can be caused by the effects of abnormal myeloma cells in the bone marrow, or it can occur as a side effect of some drugs used to treat myeloma. It is important to watch for symptoms, which can include bleeding in the mouth or nose, or excessive bruising. Blood in your stools, urine or vomit should be reported to your healthcare team urgently. Thrombocytopenia may improve as your myeloma is brought under control. If it is more severe, it may be necessary to temporarily reduce your myeloma drugs, or you may be given a platelet infusion. There are a number of self-help tips for avoiding bleeding and bruising.

About this Infosheet

The information in this Infosheet is not meant to replace the advice of your medical team. They are the people to ask if you have questions about your individual situation.

For a list of references used to develop our resources, visit myeloma.org.uk/references

We value your feedback about our patient information.

For a short online survey go to myeloma.org.uk/pifeedback or email comments to myelomauk@myeloma.org.uk

Other information available from Myeloma UK

Myeloma UK has a range of publications available covering all areas of myeloma, its treatment and management, and related conditions. Download or order them from myeloma.org.uk/publications

To talk to one of our Myeloma Information Specialists about any aspect of myeloma, call our Myeloma Infoline on **0800 980 3332** or **1800 937 773** from Ireland.

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We're here for everything a diagnosis of myeloma brings

Get in touch to find out more about how we can support you

Call the Myeloma Infoline on

 **0800 980 3332**

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