

# Thrombocytopenia and myeloma

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**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.**

## What is thrombocytopenia?

Thrombocytopenia is a condition in which there are a lower than normal number of platelets in the blood. Platelets are a type of blood cell.

There are three types of blood cell that circulate in your bloodstream - red blood cells, white blood cells and platelets. The main function of platelets

is to form a clot to stop any bleeding if a blood vessel is cut or damaged.

A normal platelet range in adults is  $130 - 400 \times 10^9 /L$ ; thrombocytopenia is defined as a platelet count of less than  $130 \times 10^9 /L$ , however some healthy people can have a platelet count of  $100 - 150 \times 10^9 /L$ .

## 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 all of 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, Velcade® (bortezomib), Revlimid® (lenalidomide), 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, urine or vomit can be a sign of spontaneous or internal bleeding which can lead to a medical emergency and should be treated right away. If you have blood in your stools, urine or vomit, you should seek medical attention immediately.

## How is thrombocytopenia diagnosed and monitored?

Thrombocytopenia is diagnosed through a routine blood test called a 'full blood count'. A full blood count 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 your blood results 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
- Limit your alcohol intake

### **Future directions**

The ongoing assessment and monitoring of platelets is key in reducing the risk of developing thrombocytopenia.

A drug called eltrombopag, which helps to stimulate the production of platelets, is currently being investigated as a possible supportive treatment for myeloma-related thrombocytopenia.

### **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. All Myeloma UK publications are extensively reviewed by patients and healthcare professionals prior to publication

## Other information available from Myeloma UK

Myeloma UK has a range of Essential Guides, Infoguides and Infosheets available covering many areas of myeloma, its treatment and management.

To order your free copies or to talk to one of our Myeloma Information Specialists about any aspect of myeloma, call the **Myeloma Infoline: 0800 980 3332** or **1800 937 773** from Ireland.

The Myeloma Infoline is open from Monday to Friday, 9am to 5pm and is free to phone from anywhere in the UK and Ireland. From outside the UK and Ireland, call **0131 557 9988** (charged at normal rate).

Information and support about myeloma is also available around the clock at **[www.myeloma.org.uk](http://www.myeloma.org.uk)**

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**Myeloma UK** 22 Logie Mill, Beaverbank Business Park, Edinburgh EH7 4HG  
**T: 0131 557 3332** **E: [myelomauk@myeloma.org.uk](mailto:myelomauk@myeloma.org.uk)** Charity No: SC 026116

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**Myeloma Awareness Week 21 - 28 June**