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# About Myeloma - A Quick Guide

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This is a brief summary of the information on About myeloma from our website. You will find more detailed information on the website.

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## What is myeloma?

Myeloma is a type of cancer that develops from cells in the bone marrow called plasma cells. Bone marrow is the spongy tissue found inside the inner part of some of our large bones. Bone marrow produces our different types of blood cells. Myeloma can develop wherever there are plasma cells. As it can be in several places in the body, it is often called multiple myeloma.

Plasma cells are part of the immune system. They make proteins called antibodies, which are also known as

immunoglobulins. Antibodies attack and help to kill bacteria and viruses. Different antibodies are made to respond to different infections.

There are 5 main types of antibody. Myeloma cells produce an abnormal form of one of these types of antibody. It is found in your blood and urine. The abnormal antibody does not work properly and is not able to fight infections.

In myeloma, too many plasma cells are made. These take up much more room in the bone marrow than they would normally. This means that there is not enough space for making normal white cells, red cells and platelets.

## Myeloma risks and causes

Myeloma is quite a rare cancer in the UK. It is very rare in people under 40. But it is more common in black populations than white and Asian populations. It is more common in men than women. We don't know what causes most cases, but there are some known risk factors. Risk factors are things that increase your risk of developing a particular illness or disease.

Probable risk factors for myeloma



- **MGUS** – People who have myeloma always have a rare medical condition called monoclonal gammopathy of unknown significance (MGUS) first, and some people with MGUS go on to develop myeloma
- **Family history** – People who have a close relative diagnosed with myeloma or MGUS are more likely to develop myeloma
- **Lowered immunity** due to medicines taken after an organ transplant, or due to HIV
- Some medical conditions such as pernicious anaemia, chest infections (pneumonia), or thyroid cancer can increase the risk of myeloma
- **Obesity** – People who are very overweight may have an increased risk of myeloma

#### Possible risk factors

People who have been exposed to high levels of radiation in the past may have an increased risk of myeloma, but the evidence for this is limited.

Research has looked into whether people exposed to certain chemicals in their work might have a higher risk of myeloma. But most research has suggested that there is no increased risk.

#### Screening for myeloma

Screening means testing people for early stages of a disease before they have any symptoms.

Before screening for any type of cancer can be carried out, doctors must have an accurate test to use. The test must be reliable in picking up cancers that are there. And it must not give a positive

result in people who do not have cancer. The test also needs to be cost effective. There is no UK screening programme for myeloma as myeloma is not a common condition and so too many people would have unnecessary tests. Screening everyone would also be very expensive for each cancer found.

But, we know that 2 to 3 out of every 10 people (20 to 30%) with a condition called monoclonal gammopathy of undetermined significance (MGUS) will go on to develop myeloma. If you are diagnosed with this condition, you will have regular check ups

#### Myeloma symptoms

Multiple myeloma does not always cause symptoms in its early stages. But possible symptoms can include

- Pain in the bones especially in the back or ribs
- A fractured bone
- Thirst
- Feeling or being sick
- Passing a lot of urine
- Tiredness, shortness of breath or weakness
- Repeated infections or infection that is difficult to shake off
- Unusual bleeding or bruising more easily than normal
- Swollen ankles

About 7 out of every 10 people with myeloma (70%) first go to the doctor because they have pain. The pain is most often in the lower back or ribs. Pain in the bones is caused by too many plasma cells collecting there. The large numbers of plasma cells in multiple myeloma damages the bones. Occasionally, it is a



fracture of a bone that takes a patient to the doctor in the first place.

All of the symptoms listed above are more likely to be caused by other illnesses. However, if you have any symptoms like these, you should see your doctor.

### Types of myeloma

There is really only one main type of myeloma, but in different people, the cancerous plasma cells make different antibodies. Doctors more often call these antibodies immunoglobulins. In each case of myeloma, only one type of immunoglobulin is overproduced, but this varies from patient to patient.

#### Light chain myeloma

Some people with myeloma do not produce complete immunoglobulins, they only produce part of it. Doctors call this light chain myeloma or Bence Jones myeloma. The light chains are smaller and show up in the urine, not the blood. So you need urine tests to diagnose and monitor your myeloma.

#### Non secretory myeloma

In less than 2 out of 100 (2%) people with myeloma, the immunoglobulin does not show up in the blood or the urine. Doctors call this non secretory myeloma. It is harder to diagnose this type of myeloma, but a new blood test called serum free light chain test can help detect small amounts of free light chains in the blood. This is useful for diagnosing and monitoring this type of myeloma.

There are other conditions of the plasma cells that are related to myeloma. These include MGUS, plasmacytoma and amyloidosis.

### Should I see a myeloma specialist?

#### Guidelines for urgent referral

Myeloma is rare and the symptoms can be similar to other medical conditions. So it can be very difficult for GPs to decide who may have a myeloma and who has something less serious. But there are particular symptoms that mean your GP should refer you to a specialist straight away. According to the National Institute for Health and Clinical Excellence (NICE) guidelines, you should see a haematologist straight away if your doctor suspects you could have myeloma, and you also have signs of kidney failure or symptoms that suggest the myeloma could be pressing on your spinal cord. If myeloma affects the bones of the spine and puts pressure on the spinal cord, it can cause

- Loss of feeling or weakness in your legs
- Worsening back pain
- Difficulty in controlling your bladder or bowel

#### Guidelines for non urgent referral

If you have a combination of symptoms such as bone pain, tiredness (fatigue), being short of breath, bruising easily or bleeding, infections that keep coming back, weight loss and night sweats, your GP should fully examine you, take blood tests and possibly refer you on to a specialist.

If you are concerned that your GP is not taking your symptoms as seriously as you think they should, you could take this information with you to an appointment.



## What to ask your doctor about myeloma

- How can you tell if I have multiple myeloma?
- Am I more likely to get multiple myeloma than anyone else?
- How common is multiple myeloma?
- What else might be causing the symptoms I have?
- Someone in my family has had myeloma so does that mean I am more likely to get it?
- Do I need to have any tests done?
- What are the different types of myeloma?
- What type of myeloma do I have?

### More information

For more information about myeloma, visit our website  
<http://cancerhelp.cancerresearchuk.org>

You will find a wide range of detailed, up to date information for people affected by cancer, including a clinical trials database that you can search for cancer trials in the UK. You can view or print the information in a larger size if you need to.

For answers to your questions about cancer call our Cancer Information Nurses on 0808 800 4040 9am till 5pm Monday to Friday

Adapted from Cancer Research UK's Patient Information Website CancerHelp UK in May 2012. CancerHelp UK is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through CancerHelp UK and our nurse team is not a substitute for professional care and should not be used for diagnosing or treating a health problem or disease. If you have, or suspect you may have, a health problem you should consult your doctor. © Cancer Research UK 2012. Cancer Research UK is a registered charity in England and Wales (1089464) and in Scotland (SC041666).