

About Acute Myeloid Leukaemia (AML)

A Quick Guide

Contents

This is a brief summary of the information on 'About Acute Myeloid Leukaemia' (AML) from our website. You will find more detailed information on there. In this information there are sections on

- The blood and AML
- AML risks and causes
- Screening for AML
- Symptoms of AML
- Types of AML
- Should I see a leukaemia specialist?
- Questions for your doctor

You can view this information in a larger print on our website.

The blood and acute myeloid leukaemia

Leukaemia is a cancer of the white blood cells and bone marrow. There are several types and subtypes. In acute myeloid leukaemia (AML) white blood cells called granulocytes or monocytes become cancerous.

Blood cells and leukaemia

Your body makes blood cells in the bone marrow. This is the soft inner part of your bones. You make blood cells in a controlled way, as your body needs them. All blood cells start as the same type of cell, called a stem cell. Stem cells then develop into one of four different types, which in turn become red blood cells, platelets, or different types of white blood cells. The diagram below helps to explain this.

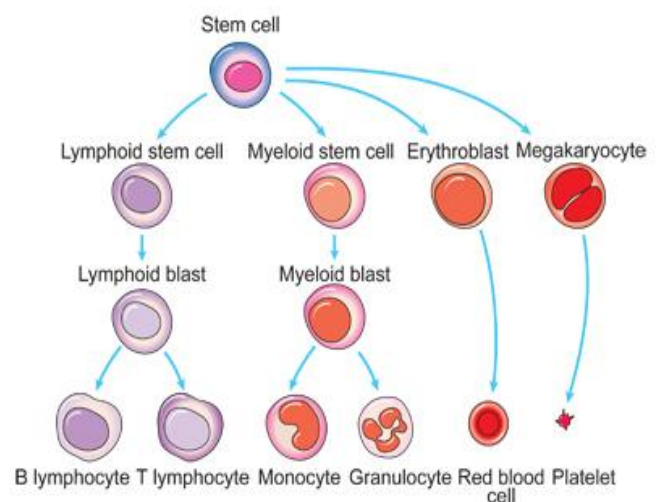


Diagram showing how blood cells are made
Copyright © Cancer Research UK

In acute myeloid leukaemia, the bone marrow makes too many white cells called monocytes or granulocytes. The cells made are not fully developed and do not work normally.

How leukaemia affects you

White blood cells help fight infection. If your body doesn't have enough healthy white blood cells, you are more likely to get infections. And you can find it difficult to get rid of them. Abnormal white blood cells can also build up in parts of the lymphatic system (the spleen and lymph nodes) and in the liver.

If there are too many white blood cells, the bone marrow gets overcrowded and there is not enough space for other types of blood cells. So you may have lower than normal levels of red blood cells and platelets.

Acute myeloid leukaemia risks and causes

Acute myeloid leukaemia is rare. It is most common in people over 65 years old. We don't know what causes most cases of leukaemia. But there are some factors that may increase your risk of AML.

The most major risk factor that we know of is being exposed to high levels of radiation. The atomic bomb survivors in Japan had higher than normal levels of leukaemia. Other possible risk factors include exposure to benzene, past chemotherapy, some genetic (inherited) conditions, some blood disorders, some autoimmune conditions, smoking and being overweight.

Screening for acute myeloid leukaemia

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

Before doctors can screen for any type of cancer, there must be 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. It must also be simple, safe and not too expensive.

At the moment, we don't have a screening test that is reliable enough to use for acute myeloid leukaemia (AML). So there is no UK screening programme.

Symptoms of acute myeloid leukaemia

Many symptoms are vague and non-specific. You may feel as if you have flu. Possible symptoms can include

- General weakness
- Feeling tired (fatigue)
- High temperature (fever)
- Weight loss
- Frequent infections
- Bruising or bleeding easily
- Blood in your urine or stools
- Pain in the bones or joints
- Breathlessness
- Swollen lymph glands – this is rare
- A feeling of fullness or discomfort in the tummy (abdomen) from a swollen liver or spleen

These symptoms are caused by too many abnormal white blood cells and not enough normal white cells, red cells and platelets.

What to do if you have these symptoms

If you have any of these AML symptoms, you must get checked by your GP. But remember, the symptoms of AML are often vague and can all be caused by other medical conditions. Most people with these symptoms don't have leukaemia.

Types of acute myeloid leukaemia

Doctors divide acute leukaemias into myeloid and lymphoblastic leukaemias. But they also divide them into even smaller groups or subtypes. This is called classification. There are 2 classification systems for AML. Doctors plan your treatment according to the particular subtype of leukaemia you have.

Your doctors look at your leukaemia cells under a microscope and do a number of tests to find which group your leukaemia is in.

Granulocytic sarcoma

In acute myeloid leukaemia, a lump of cells can collect outside the bone marrow. This is called a granulocytic sarcoma. You can get these anywhere in the body.

A mixture of types

Some leukaemias seem to be a mixture of AML and acute lymphoblastic leukaemia (ALL). Doctors call these acute biphenotypic leukaemias. Biphenotypic means both types and is extremely rare.

You can find additional information about the type of AML on our website.

Should I see a leukaemia specialist?

The symptoms of leukaemia can be similar to other, less serious, medical conditions. It can be very difficult for GPs to decide who may have a leukaemia and who may have something much more minor. But it is very important for AML to be diagnosed and treated quickly. Your GP may do a blood test. If the results show signs of acute myeloid leukaemia your GP should refer you to a blood specialist straight away. This is an immediate referral.

Guidelines for urgent referral

There are guidelines to help GPs decide who needs to see a specialist and how soon. An urgent referral means you should get an appointment with a specialist within 2 weeks. If you have a combination of some of the symptoms below, your GP should take blood tests and make an urgent referral to a doctor specialising in blood diseases. The symptoms include

- An enlarged spleen for no obvious reason
- Unexplained extreme tiredness
- Weight loss
- Night sweats that drench you
- Itching all over
- Breathlessness
- Bruising easily or bleeding
- Infections that keep coming back
- Pain in the tummy (abdomen) or bone pain
- Swollen lymph glands

Questions for your doctor about acute myeloid leukaemia

- Am I more likely to get acute myeloid leukaemia (AML) than anyone else?
- Someone in my family has had leukaemia so am I more likely to get it?
- How common is acute myeloid leukaemia?
- What else might be causing the symptoms I have?
- Do I need to have any tests done?
- Should I see a specialist?
- What type of AML do I have?
- What does this mean for me?

Notes

For more information, visit our website <http://www.cruk.org/cancerhelp>

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 trials in the UK. Our information is based on the best current scientific evidence and reviewed regularly by leading clinicians and experts in health and social care.

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 March 2014. 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. Copyright Cancer Research UK 2014. Cancer Research UK is a registered charity in England and Wales (1089464), Scotland (SC041666) and in the Isle of Man (1103)