What is leukaemia?

Leukaemia is a type of blood cancer. It starts when cells in your bone marrow grow out of control and make too many white blood cells. These white blood cells do not work properly. They can build up in your body, making it hard for you to make enough healthy blood cells.

Download our infographic about leukaemia

Facts about leukaemia

You might have heard of leukaemia as a childhood cancer. It is true that some types of leukaemia mainly affect children. But most types are much more common in adults. In fact, around 3 in every 4 people with leukaemia are over 60.

We are here to support you

If you or someone you love has leukaemia, we're here for you.



Find out about the support we offer



Read about practical things to think about if you've just been diagnosed.

Over 55,000

There are more than 55,000 people in the UK living with or beyond leukaemia

28

More than 28 people in the UK find out they have leukaemia every day

3 in 4

3 in every 4 people with leukaemia are over 60

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Leukaemia Care Registered Charity Number 1183890. Scotland Registered Charity Number SC049802

What causes leukaemia?

We do not know exactly what causes leukaemia.

- **It is not because of anything you did or did not do.**
- **You cannot catch it or give it to other people.**



Leukaemia starts when bone marrow cells go wrong and start making unhealthy blood cells. These cells do not work properly. They divide when they should not, or live longer than they should. The unhealthy cells keep multiplying and can fill up your bone marrow. This means it does not have enough space to make healthy blood cells.

More about bone marrow

Bone marrow is the spongy centre of your larger bones. It is where your blood cells grow and develop. Your bone marrow contains special cells called stem cells. Stem cells make all the blood cells your body needs.

There are three main types of blood cell:

- Red blood cells carry oxygen around your body.
- White blood cells fight infections. There are different types with different jobs in your body. The main types are lymphocytes, neutrophils and eosinophils.
- Platelets help your blood clot.

Usually, your bone marrow keeps all these cells in a healthy balance. But if you have blood cancer, you might have high numbers of some blood cells, low numbers of some blood cells, and some blood cells that do not work properly. This is what causes the symptoms of leukaemia.

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Types of leukaemia

There are many types of leukaemia. Different types need different treatments. They are broadly grouped into acute leukaemia and chronic leukaemia. There are also other, rarer types of leukaemia.

Acute leukaemia

Acute leukaemia usually grows quickly and needs treatment straight away. There are two main types, depending on the type of cell they started in:

- Acute myeloid leukaemia (AML)
- Acute lymphoblastic leukaemia (ALL)

Chronic leukaemia

Chronic leukaemia usually grows slowly and may not need treatment straight away. It is more common than acute leukaemia. There are two main types, again depending on the type of cell they started in:

- Chronic lymphocytic leukaemia (CLL)
- Chronic myeloid leukaemia (CML)

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Myeloproliferative neoplasms

Myeloproliferative neoplasms (MPNs) are slow-growing blood cancers that develop when your bone marrow makes too many blood cells. There are different types of MPN depending on which type of blood cell is being over-produced. The most common ones are:

- Essential thrombocythaemia (ET)
- Polycythaemia vera (PV)
- Myelofibrosis (MF)

There are other, rarer MPNs, too.

Every day in the UK, about 14 people find out they have an MPN.

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Myelodysplastic syndromes

Myelodysplastic syndromes (MDS) are slow-growing blood cancers. They develop when your bone marrow makes abnormal, immature blood cells that do not work properly. And

your bone marrow does not make enough healthy blood cells. MDS is sometimes called bone marrow failure.

In the UK, around six people a day find out they have MDS.

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Myelodysplastic/ myeloproliferative neoplasms

Myelodysplastic/myeloproliferative neoplasms (MDS/MPN) are rare types of blood cancer. They happen when cells in your bone marrow make:

- Too many of some types of blood cells
- Not enough of other types of blood cells
- Some blood cells that do not work properly

They have features that overlap two more common groups of blood cancer: myelodysplastic syndromes and myeloproliferative neoplasms. So, their name combines the two.

More than two people in the UK find out they have MDS/MPN every day.

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Other types of blood cancer

There are many other types of blood cancer, too.

Lymphoma

Lymphoma is a type of blood cancer that develops in your lymphatic system from blood cells called lymphocytes. If you have lymphoma, abnormal lymphocytes build up in your body, usually in your lymph nodes.

- Lymphoma Action is a UK charity that provides a range of trustworthy information and support to anyone affected by lymphoma.
- This includes information about adult T-cell leukaemia/lymphoma (ATL or ATLL). This blood cancer can be a lymphoma or a leukaemia, depending on

whether the abnormal cells are mainly in your blood or your lymphatic system. It is very rare. It is usually treated with lymphoma medicines.

Myeloma

Myeloma is a type of blood cancer that develops in your bone marrow from blood cells called plasma cells. These can build up in your bone marrow and stop it making enough healthy blood cells. They also make abnormal proteins and chemicals that can cause problems in other parts of your body.

- Myeloma UK is a charity dedicated to providing reliable information and support for anyone affected by myeloma.
- This includes information about plasma cell leukaemia, sometimes known as plasma cell myeloma. This is an extremely rare type of leukaemia that is very similar to myeloma. Most cases develop in people who have myeloma, and it is treated using myeloma medicines.

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Need support?

You are not alone. We're here for you whether you have a diagnosis yourself or know someone who has. If you'd like advice, support, or a listening ear, call our freephone helpline on 08088 010 444 or send a WhatsApp message to 07500 068 065.

Helpline and WhatsApp →

Help us improve our information

We aim to provide information that's reliable, up-to-date, and covers what matters to you. Please complete our short survey to help us improve our information and make sure it meets your needs.

Complete our short survey →

About our information

This information is aimed at people in the UK. We do our best to make sure it is accurate and up to date but it should not replace advice from your health professional. Find out more about our information.

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