

What is lymphoma?

This page gives you an overview of how cancer develops and explains what lymphoma is.

On this page

What is cancer?

What is lymphoma?

Lymphoma is the fifth most common type of cancer in the UK. It can occur at any age, even in children. It is nearly always **treatable**; most people live for many years after being diagnosed with lymphoma.

We have separate information about the topics in **bold font**. Please get in touch if you'd like to request copies or if you would like further information about any aspect of lymphoma. Phone **0808 808 5555** or email [**information@lymphoma-action.org.uk**](mailto:information@lymphoma-action.org.uk).

What is cancer?

We all start life as a single cell – the microscopic building block of our bodies. While we're in the womb, this cell divides to form two cells, then four cells, then eight cells, and so on. As they divide, these cells gradually develop into all the different types of cell we're made of, such as blood cells, muscle cells and nerve cells. By the time we're born, our bodies contain about 200 different types of cell – and trillions of cells in total.

After we're born, most of these cells carry on dividing to allow us to grow and develop. Even when we're fully grown, cells continue to divide to replace old cells that die off naturally. In fact, every minute, around 100 million of our cells die and are replaced by new ones.

Cell division and cell death are normal processes. They are controlled by chemical signals. Usually, cell division and cell death are kept carefully in balance so we only make the number of new cells our body needs.

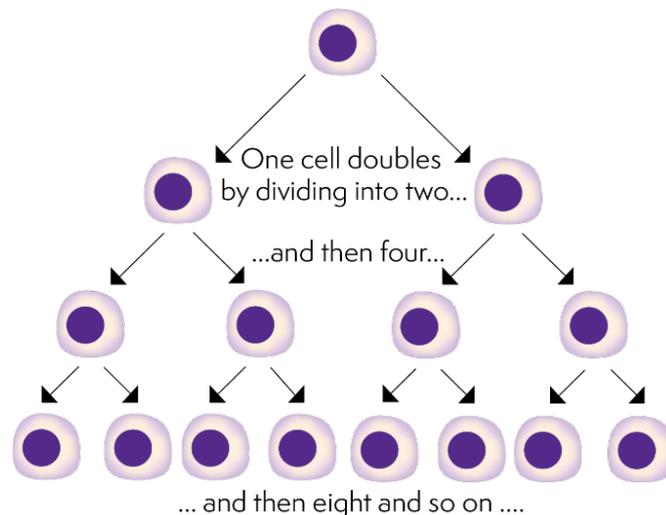


Figure: Cell division

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Cancer

Cancer develops when a mistake happens during cell division that changes the DNA inside a cell. This is called a 'mutation'. Mutations can create abnormal cells that stop responding to control signals. These cells might:

- start dividing when they shouldn't
- carry on dividing when they should stop
- stay alive when they should die.

This forms a population of cells that divide faster than they die, leading to an uncontrolled build-up of abnormal cells.

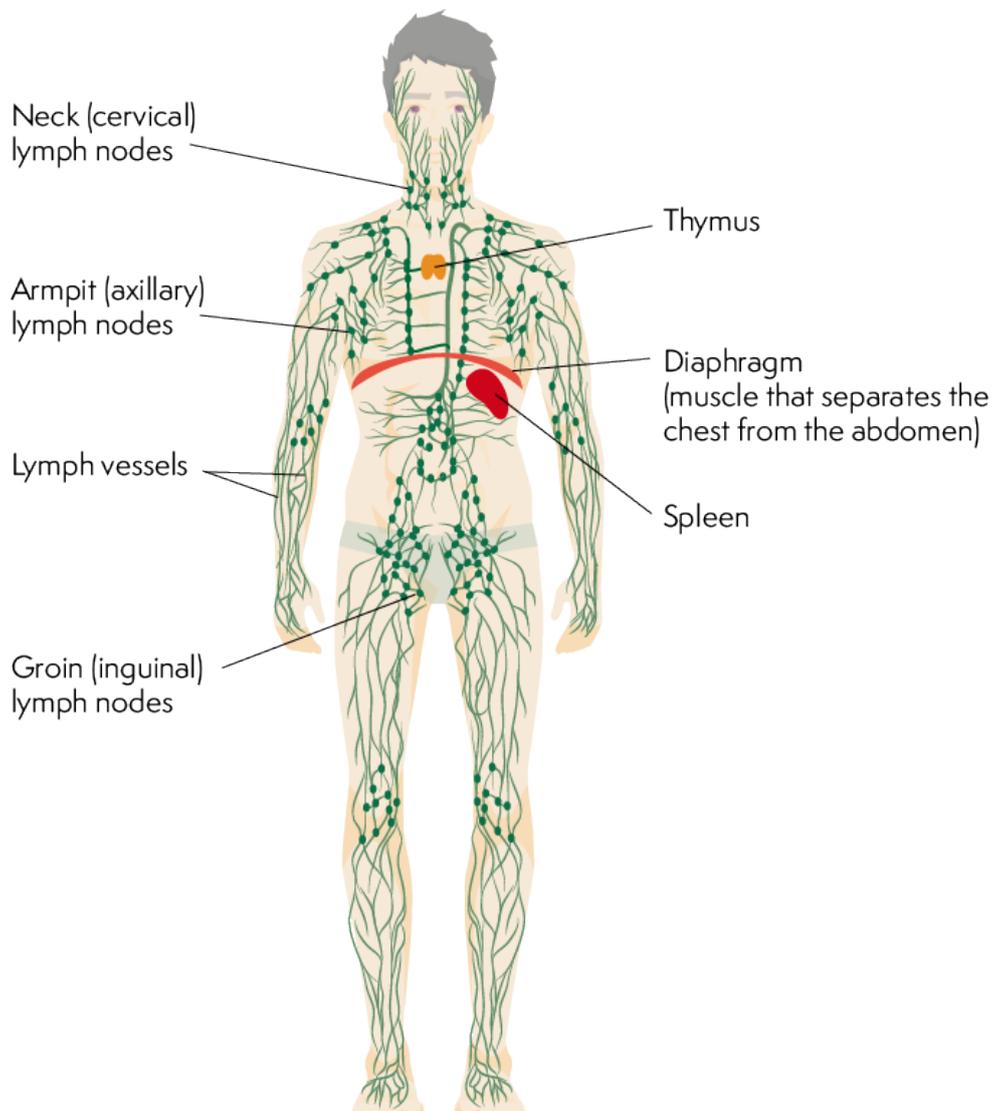
One mutation on its own is not usually enough to cause cancer. For cancer to develop, the abnormal cells need to be able to divide and grow uncontrollably, hide from the body's immune system and get all the nutrients they need to survive. This normally takes a number of different mutations.

Once cancer develops, the abnormal cells might stop your body from making normal, healthy cells. This can prevent organs from working properly. The abnormal cells might spread to other parts of the body and start growing there too. Cancer also uses up the energy and nutrients your body needs.

There are many different types of cancer depending on what type of cell became abnormal. Different types of cancer can have different effects, depending on where the cancer is and how fast it is growing.

What is lymphoma?

Lymphoma is a type of blood cancer that develops when white blood cells called **lymphocytes** grow out of control. Lymphocytes are part of your **immune system**. They travel around your body in your **lymphatic system**, helping you fight infections. Your lymphatic system runs throughout your body, similar to your blood circulatory system, carrying a fluid called **lymph**. The fluid passes through **lymph nodes** (glands), which are spread throughout your body.



**Figure: The lymphatic system
(lymph vessels and lymph nodes are shown in green)**

If you have lymphoma, your lymphocytes divide in an abnormal way or do not die when they should. The abnormal lymphocytes build up, usually in lymph nodes in your armpits, neck or groin. However, they can collect in almost any part of your body.

The **symptoms of lymphoma** depend on where the lymphoma starts, what parts of your body it affects, and what **type of lymphoma** it is. There are over 60 different types, broadly grouped into **Hodgkin lymphomas** and **non-Hodgkin lymphomas**. Non-Hodgkin lymphomas are further grouped depending on whether they are slow-growing (described as 'low-grade') or fast-growing ('high-grade'). Different types of lymphoma behave differently and need different **treatment**.

What are the different types of blood cancer?

Lymphoma, leukaemia and myeloma are all types of blood cancer (also known as 'haematological' cancers). Although there are similarities between some types of blood cancer, most types develop differently. They also behave differently and are treated differently.

- Lymphoma affects lymphocytes. The abnormal cells develop in the lymph nodes or organs of the **lymphatic system**.
- Leukaemia affects white blood cells, including lymphocytes. The abnormal cells develop in the bone marrow or the bloodstream.
- Myeloma affects a particular type of white blood cell called a plasma cell. The abnormal cells develop in the bone marrow.

Bloodwise and **Leukaemia Care** have more information about leukaemia. **Myeloma UK** has more information on myeloma.

References

The full list of references for this page is available on our website. Alternatively, email publications@lymphoma-action.org.uk or call 01296 619409 if you would like a copy.

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