

Understanding non-Hodgkin lymphoma



About this booklet

This booklet is about a type of blood cancer called non-Hodgkin lymphoma (NHL). It is for anyone who has been diagnosed with NHL. There is also information for carers, family members and friends.

The booklet explains the treatments you might have. It also has information about how to get advice and support about feelings, relationships, work and money.

We hope it helps you deal with some of the questions or feelings you may have. We cannot give advice about the best treatment for you. You should talk to your doctor, who knows your medical history.

This booklet does not cover lymphoma risk factors, signs and symptoms or tests to diagnose lymphoma. You can find more information on our website. Visit macmillan.org.uk/non-hodgkin

We also have separate information about these types of lymphoma:

- Hodgkin lymphoma, in our booklet [Understanding Hodgkin lymphoma](#)
- primary CNS lymphoma – lymphoma that starts in the brain or spinal cord, at macmillan.org.uk/primary-cns
- primary cutaneous lymphoma – lymphoma that starts in the skin, on our website, at macmillan.org.uk/CTCL

How to use this booklet

This booklet is split into sections to help you find what you need. You do not have to read it from start to finish. You can use the [contents](#) list to help you.

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It is fine to skip parts of the booklet. You can always come back to them when you feel ready.

On [pages 140 to 152](#), there are details of other organisations that can help.

Quotes

In this booklet, we have included quotes from people who have had non-Hodgkin lymphoma which you may find helpful. These are from people who have chosen to share their story with us. To share your experience, visit macmillan.org.uk/shareyourstory

For more information

If you have more questions or would like to talk to someone, call the Macmillan Support Line free on [0808 808 00 00](tel:08088080000), 7 days a week, 8am to 8pm, or visit macmillan.org.uk

If you would prefer to speak to us in another language, interpreters are available. Please tell us, in English, the language you want to use.

If you are deaf or hard of hearing, call us using Relay UK on 18001 **0808 808 00 00**, or use the Relay UK app.

We have some information in different languages and formats, including audio, easy read, Braille, large print, interactive PDFs and translations. To order these, visit macmillan.org.uk/otherformats or call [0808 808 00 00](tel:08088080000).

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About lymphoma

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What is lymphoma?

Lymphoma is a type of blood cancer. It develops when blood cells called lymphocytes become abnormal. It is also called cancer of the lymphatic system. Lymphocytes are part of the lymphatic system.

Normally signals in and around a cell tell it when to:

- grow
- divide to make new cells
- die.

With lymphoma, the abnormal lymphocyte cells do not work like this. They grow in an uncontrolled way and do not follow the normal signals to die. They do not fight infection well like a normal lymphocyte does. And they build up over time.

Eventually the build-up of abnormal cells causes symptoms.

There may be enough cells to form a lump. The most common place for this to happen is in a lymph node. But it can happen in other parts of the body. Lymphoma that grows outside the lymph nodes is called [extra-nodal lymphoma](#).

Lymphocytes travel around the body. This means that lymphoma can happen in more than one area of the body.

The lymphatic system

The lymphatic system is part of the body's immune system. This is the system that protects us from infection and disease.

The lymphatic system is made up of very fine tubes called lymphatic vessels. These tubes connect to groups of small lymph nodes throughout the body.

Fluid drains from the tissues of the body into the lymphatic vessels. The fluid travels through the vessels and lymph nodes then into the bloodstream.

The lymph nodes remove germs (bacteria), disease and waste products from the fluid as it passes through. When you have an infection, some lymph nodes may swell as they fight the infection. Lymph nodes are sometimes called lymph glands.

Lymphocytes

Lymphocytes are a type of white blood cell. They fight infection. They are made in the bone marrow. They travel around the body and are found in lymph nodes and throughout the lymphatic system.

The main types of lymphocyte are:

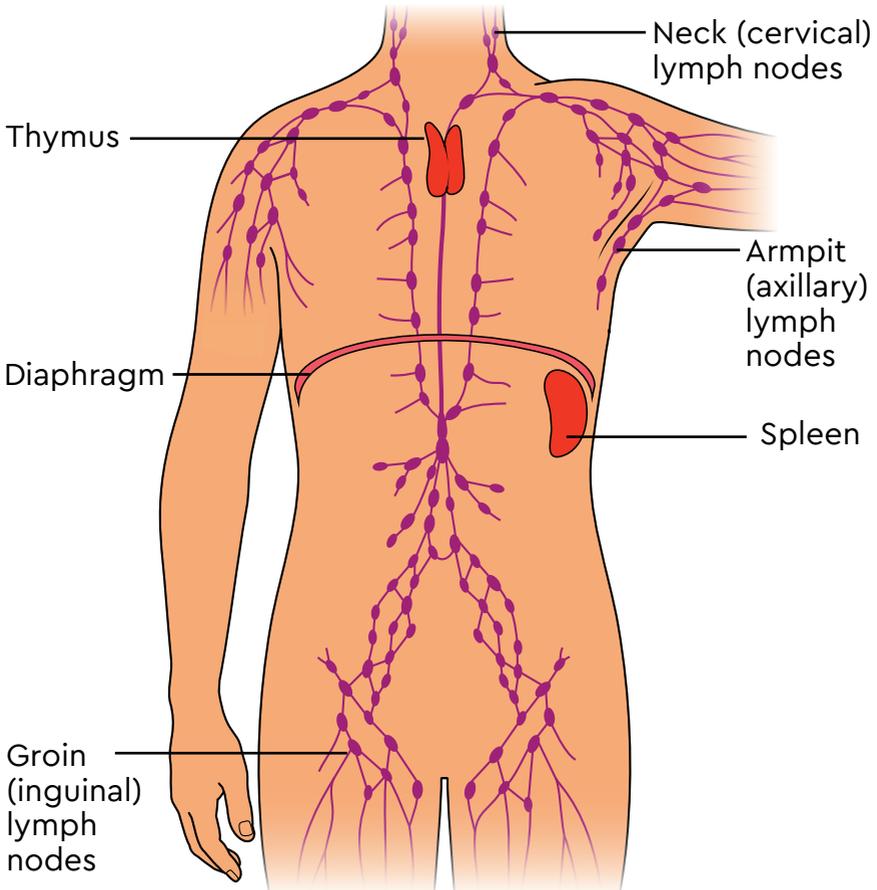
- B-cell lymphocytes
- T-cell lymphocytes
- NK lymphocytes.

Lymphatic organs

Lymphatic organs include the following:

- The thymus – T-cell lymphocytes mature in the thymus.
- The spleen – this helps fight and filter out disease and germs.
- The tonsils – these help fight and filter out disease and germs.

The lymphatic system



Bone marrow

Bone marrow is the spongy material in the middle of bones. It is another lymphatic organ and makes:

- all the different types of white blood cell, including lymphocytes
- red blood cells, which carry oxygen from your lungs to other cells in your body
- platelets – cells which help blood to clot and prevent bleeding and bruising.

Other lymphatic tissue

There are also other areas of lymphatic tissue where lymphocytes and other infection-fighting cells collect. These areas are mostly found where disease or germs are more likely to enter the body – for example, in the lining of the bowel, lungs and nose.

Non-Hodgkin lymphoma

How lymphoma develops and the treatment you may need depend on the type of lymphoma. The 2 main types are:

- Hodgkin lymphoma
- non-Hodgkin lymphoma (NHL).

Non-Hodgkin lymphoma (NHL) is the 6th most common cancer in the UK. Around 14,200 people are diagnosed with it each year. It can affect people at any age but is more common as people get older. Most people who are diagnosed with NHL are over 55. The highest rate of diagnosis is in people aged 80 to 84.

NHL usually starts in the lymph nodes. Several areas of lymph nodes around the body may be affected. NHL can also start outside the lymph nodes in almost any part of the body. Lymphoma that starts outside the lymph nodes is called primary extra-nodal lymphoma.

There are many different types of NHL. Some grow very slowly and may not need treatment for months or years. These are called [low grade lymphomas](#). Other types grow quickly and always need treatment soon after diagnosis. These are called [high grade lymphomas](#).

Types of non-Hodgkin lymphoma

Doctors can find out the type of NHL you have by examining some lymphoma cells under a microscope.

If the lymphoma has developed from a B-cell lymphocyte it is called a B-cell lymphoma. A lymphoma that has developed from a T-cell lymphocyte is called a T-cell lymphoma.

We have more information about the following [types of lymphoma](#) on our website.

B-cell lymphomas

B-cell lymphomas are more common than T-cell lymphomas. About 9 out of 10 people diagnosed with NHL (90%) have a B-cell lymphoma.

The most common types of B-cell lymphoma are:

- diffuse large B-cell lymphoma (DLBC)
- follicular lymphoma (FL).

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Other less common types include:

- mantle cell lymphoma
- Burkitt lymphoma
- primary mediastinal B-cell lymphoma
- nodal marginal zone B-cell lymphoma
- extra-nodal marginal zone B-cell lymphoma
(also called MALT lymphoma)
- splenic marginal zone lymphoma
- small lymphocytic lymphoma
(also called chronic lymphocytic leukaemia)
- lymphoplasmacytic lymphoma
(also called Waldenström's macroglobulinaemia).

T-cell lymphomas

T-cell lymphomas are much less common than B-cell lymphomas. There are a number of different types of T-cell lymphoma. They include:

- peripheral T-cell lymphoma
- anaplastic large cell lymphoma
- T-follicular helper lymphoma which includes angioimmunoblastic lymphoma
- lymphoblastic lymphoma (this is mainly T-cell but can be B-cell).

Other rarer types

There are other types of lymphoma. Some can be difficult to diagnose. The cells may not clearly look like any single type of lymphoma. Or they may have features of 2 different types. For example, grey zone lymphoma is a B-cell lymphoma with features of both Hodgkin lymphoma and primary mediastinal B-cell lymphoma.



Planning your treatment

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“ I smiled when I finally got the cancer diagnosis. It might seem strange, but at least now I knew what was wrong. It was scary not knowing what was wrong with me. ”

Leslie, diagnosed with
non-Hodgkin lymphoma

Finding out you have lymphoma

Being diagnosed with cancer can cause many different emotions. There is no right or wrong way to feel. You may have been worrying about having lymphoma for a while. Or your diagnosis might have been unexpected.

This information is written for people who have already been diagnosed with lymphoma. We have more information about [possible causes, risk factors and symptoms of lymphoma](#).

Waiting for treatment to start can be a difficult time. You may be worried about telling people and about what treatment options you will have. You might choose to spend some time reading about the cancer, or you may prefer to wait until you go to your cancer doctor. Do what feels right for you. If you need support, you can contact our cancer support specialists on [0808 808 00 00](tel:0808 808 00 00). They will be able to talk to you about what has happened and any worries you have.

Your data and the cancer registry

When you are diagnosed with cancer, some information about you, your diagnosis and your treatment is collected by a [cancer registry](#).

The information is used to help understand cancer in the UK better. This is important for planning and improving health and care services. It can be used to ensure that people living with cancer get the best possible care and support.

Hospitals automatically send information to the cancer registry. There are strict rules about how the information is stored, accessed and used. Information about health is sensitive, so by law it has to be kept under the highest levels of security.

If you have any questions, talk to your doctor or nurse. If you do not want your information included in the registry, you can contact the cancer registry in your country to opt out.

Tests after diagnosis

You will have some of the following tests before you start treatment for lymphoma. These help your cancer team plan your treatment safely and effectively by giving information about:

- the [stage of the lymphoma](#)
- your general health and how well your heart, lungs, liver and kidneys are working
- the levels of different blood cells in your blood
- whether you have certain infections linked to lymphoma, such as HIV and hepatitis.

You may have the following tests.

CT scan

A CT scan makes a detailed picture of the inside of the body. The picture is built up using x-rays taken by the CT scanner. The scanner looks like a large, thick ring. You lie still on a narrow bed which moves slowly backwards and forwards through the ring.

We have more information about having a CT scan on our website. Visit [macmillan.org.uk/ct-scan](https://www.macmillan.org.uk/ct-scan)



PET or PET-CT scan

A PET scan uses a low dose of radiation to check the activity of cells in different parts of the body.

You may have a PET scan and a CT scan together. This is called a PET-CT scan. It can give more detailed information about cancer or abnormal areas seen on other scans.

About 1 hour before the scan, the radiographer will inject a radioactive substance into a vein, usually in your arm. This is called a tracer.

The scan takes about 30 to 60 minutes. We have more information about [PET and PET-CT scans](#) on our website.

MRI scan

An MRI scan uses magnetism to build up a detailed picture of areas of the body.

The scanner is a powerful magnet. You will be asked to complete and sign a checklist to make sure it is safe for you. This will check whether you have any metal implants, such as a pacemaker or surgical clips. Tell your doctor if you have ever worked with metal. This is because tiny bits of metal can sometimes lodge in the body.

During the scan, you need to lie still on a bed inside a long cylinder (tube).

The scan usually lasts between 15 minutes and 1 hour. It is painless, but you may find it uncomfortable to lie still for that long. We have more information about having an MRI scan on our website.

Visit macmillan.org.uk/mri-scan

Bone marrow biopsy

A biopsy is when a doctor or nurse removes a small piece of tissue or a sample of cells. This is then checked under a microscope. For a bone marrow biopsy, a small sample of bone marrow is usually taken from the back of the hip bone (pelvis). Rarely, the sample is taken from the breastbone (sternum). We have more information about having a [bone marrow biopsy](#) on our website.

Lumbar puncture

A doctor or specialist nurse may do a lumbar puncture. This means they take a sample of the fluid that surrounds the brain and spinal cord. This fluid is called cerebrospinal fluid (CSF). They take it from the lower back.

The sample is checked under a microscope for cancer cells. This can help diagnose some cancers or give doctors more information about the cancer. We have more information about having a [lumbar puncture](#) on our website.



Staging

Staging describes how many areas of the body are affected by lymphoma and where these are. Your doctor will also ask you about any symptoms you have. All this information helps doctors plan the right treatment for you.

Staging of lymphoma can sometimes be complicated. Your cancer doctor or specialist nurse will explain what stage you have.

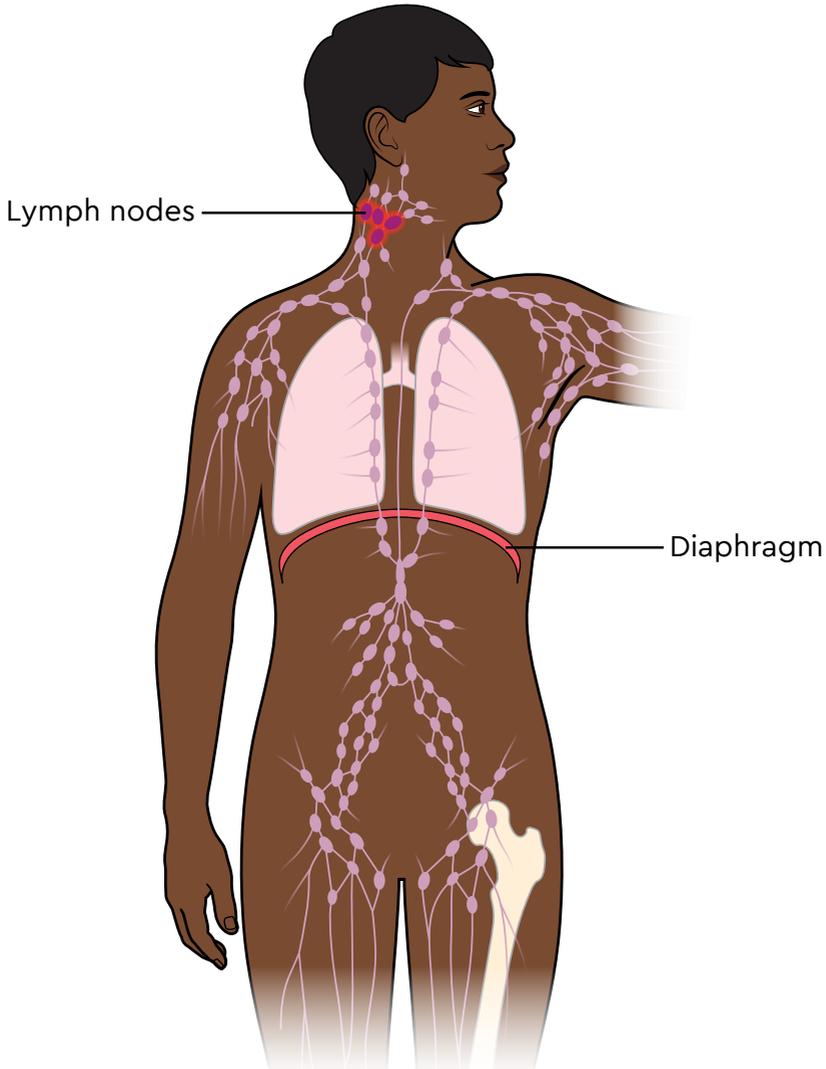
The stage of a lymphoma is usually described using numbers from 1 to 4. Stages 1 and 2 are also called early stage, limited or localised lymphoma. Stages 3 and 4 are sometimes called advanced lymphoma.

Stage 1

The lymphoma is either:

- in 1 single lymph node or 1 group of lymph nodes
- in 1 part of the body outside the lymph nodes (extra-nodal).

Stage 1 – Lymphoma in a single group of lymph nodes



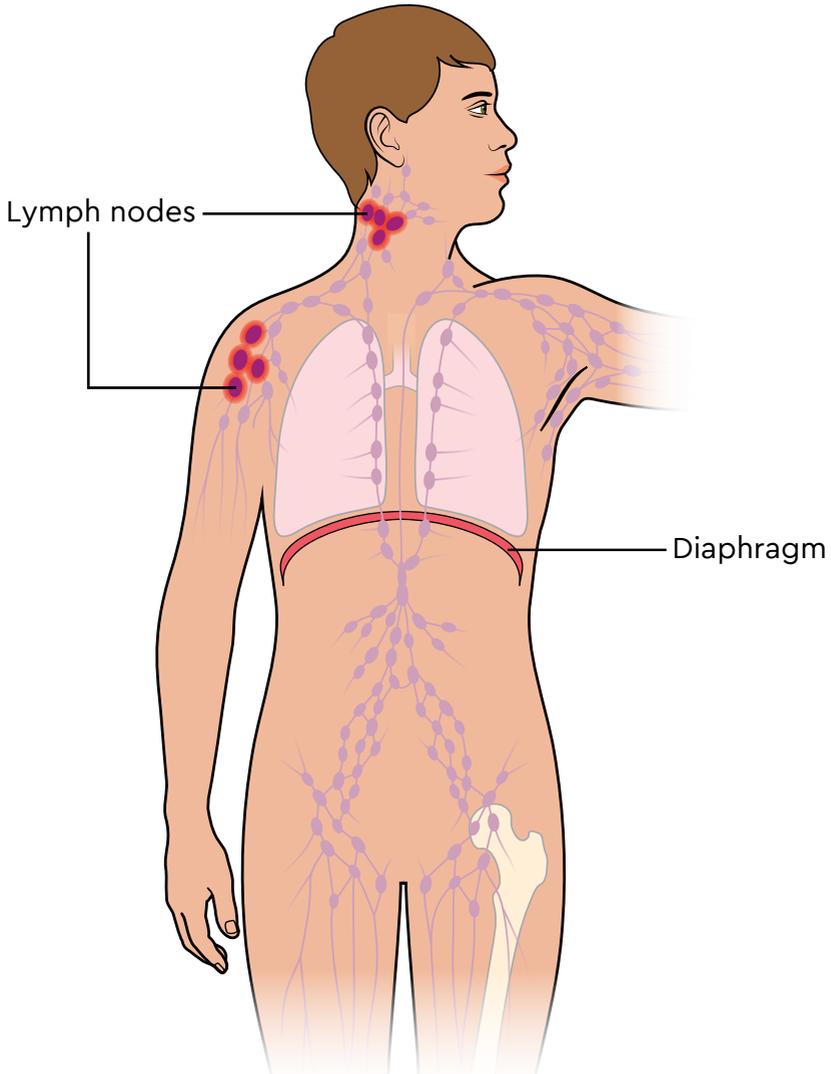
Stage 2

The lymphoma is either:

- in 2 or more groups of lymph nodes
- or in another part of the body (extra-nodal) and in 1 group of lymph nodes.

For both these, the sites of lymphoma are on the same side of the diaphragm – either above or below it. The diaphragm is the sheet of muscle underneath the lungs that separates the chest from the tummy (abdomen).

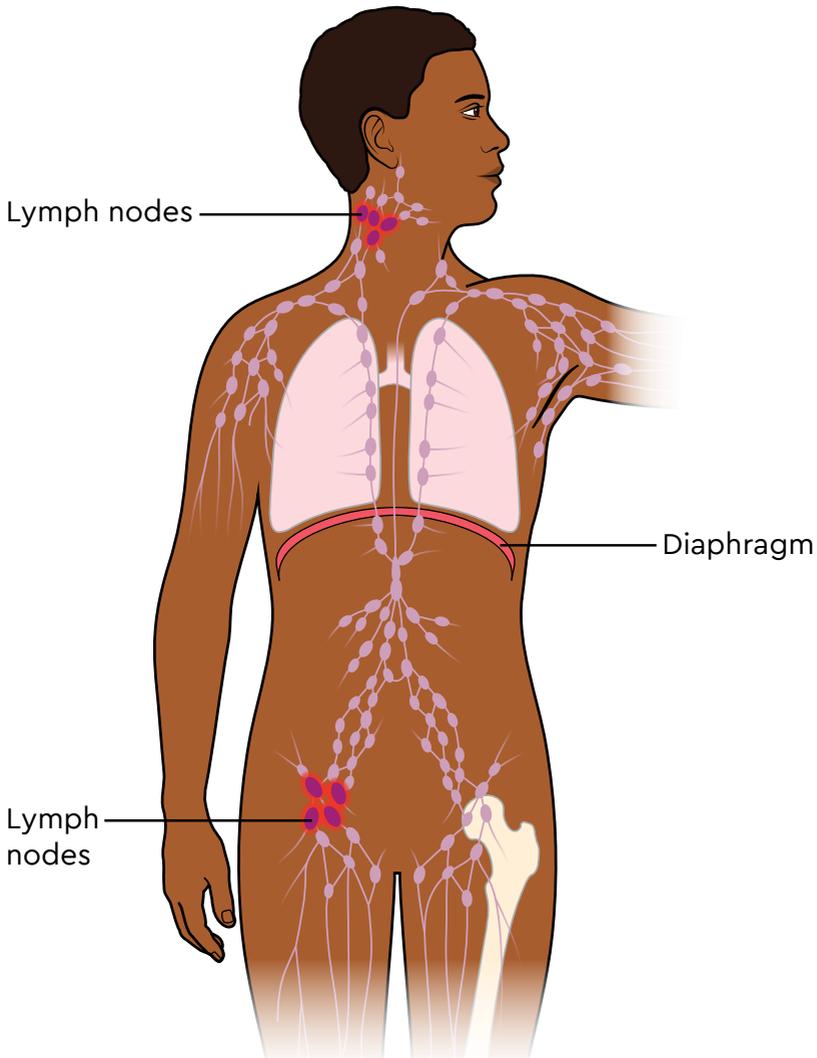
Stage 2 - Lymphoma in 2 groups of lymph nodes



Stage 3

There are areas of lymphoma above and below the diaphragm.

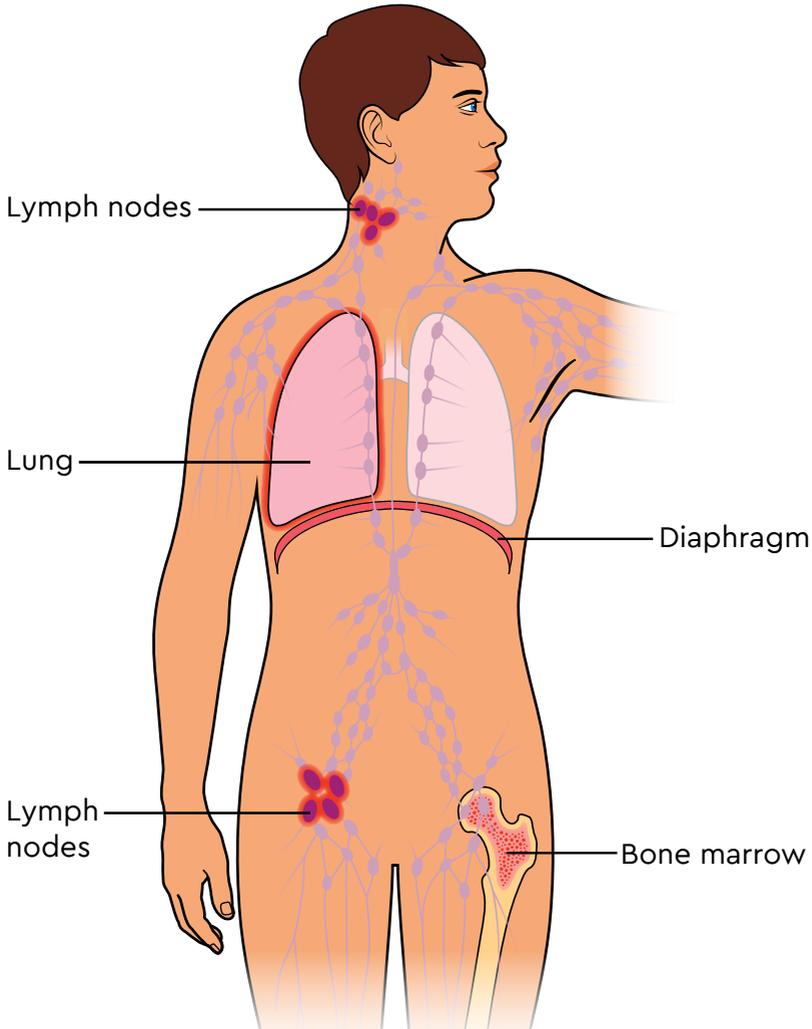
Stage 3 – Lymphoma in 2 groups of lymph nodes above and below the diaphragm



Stage 4

The lymphoma is more widespread and may also affect organs such as the bone marrow, lungs or liver.

Stage 4 – Lymphoma has also spread to organs such as the lung and bone marrow



Extra-nodal lymphoma

Lymphoma in parts of the body outside the lymph nodes is called extra-nodal lymphoma. Extra-nodal sites include the liver, lungs, spinal cord and bone marrow.

Extra-nodal lymphoma is described by adding the letter E (for extra-nodal) after the stage number. For example, the lymphoma may be described as stage 1E.

Bulky disease

If an area of lymphoma is large, it is often called bulky disease.

The letter X may be added after the stage number to show bulky disease. For example, the lymphoma may be described as stage 1X.



B symptoms

Lymphoma B symptoms include:

- heavy, drenching sweats, especially at night
- unexplained high temperatures
- unexplained weight loss.

Doctors use information about B symptoms to help determine the stage of lymphoma and plan treatment. The letter B is added after the stage number to show you have B symptoms. For example, the lymphoma may be described as stage 2B. If you do not have any of these symptoms, the letter A is used instead, for example stage 2A.

Lymphoma in the spleen

The letter S may be added after the stage number to show there is lymphoma in the spleen. For example, the lymphoma may be described as 1S.

Grading

Grading describes how and how quickly the lymphoma cells are likely to grow. For some types of non-Hodgkin lymphoma (NHL), this information helps doctors plan the right treatment for you.

Low grade lymphomas

These grow very slowly. They are sometimes called indolent or chronic lymphomas. They may need little or no treatment for months or possibly years. Some people will never need treatment. Follicular lymphoma (FL) is the most common type of low grade NHL.

High grade lymphomas

These grow more quickly and are sometimes called aggressive lymphomas. They usually cause symptoms and need immediate treatment. Diffuse large B-cell lymphoma (DLBCL) is the most common type of high grade lymphoma.

How your treatment is planned

After your test results, you and your doctor start to talk about your treatment. Your doctor usually meets with other specialists to get their opinions too.

Multidisciplinary team (MDT) meeting

A team of specialists meet to talk about the best treatment for you. They are called a multidisciplinary team (MDT).

The MDT look at national treatment guidelines or the latest evidence for the type of cancer you have. If you have any treatment preferences, your doctor will tell them about this.

The MDT will usually include the following professionals:

- oncologist – a doctor who treats people who have cancer
- haematologist – a doctor who diagnoses and treats blood disorders and cancers
- radiologist – a doctor who looks at scans and x-rays to diagnose problems
- clinical nurse specialist (CNS) – a nurse who gives information about cancer, and support during treatment
- pathologist – a doctor who looks at cells or body tissue under a microscope to diagnose cancer.

The MDT may also include other specialists, such as:

- a pharmacist – someone who gives out medicines and gives advice about taking medicines
- a dietitian – someone who gives information and advice about food and food supplements
- a physiotherapist – someone who gives advice about exercise and mobility
- an occupational therapist – someone who gives information, support and aids to help people with tasks such as washing and dressing
- a clinical trials nurse – a nurse who helps manage clinical trials into new ways of treating cancer
- a teenager and young adult (TYA) specialist nurse – a nurse who gives information and support to teenagers and young adults
- a psychologist – someone who gives advice about managing feelings and behaviours
- a counsellor – someone who is trained to listen to people's problems and help them find ways to cope.

Talking about your treatment plan

After the MDT meeting, you will usually meet your cancer doctor and specialist nurse. They will talk to you about your treatment plan. It can help to write down your questions before you go. You may want to ask a family member or friend to come with you. They can help remember what is said and talk with you about it afterwards. You need to know as much as possible before you can make any treatment decisions.

Your cancer doctor should explain:

- the aim of the treatment – whether it is to cure the cancer or control it
- the benefits of the treatment
- the disadvantages of the treatment – for example, the risks and side effects
- any other treatments that may be available
- what may happen if you do not have the treatment.

Cancer treatments can be complex. It can also be hard to concentrate on what you are being told if you are feeling anxious. If the doctor says something you do not understand, ask them to explain it again.

Most people worry about the side effects of treatment. Your doctor or nurse will explain how side effects can be controlled and what you can do to manage them. They can also tell you if your treatment is likely to cause any late effects and how these can be managed.

You may need more than one meeting with your doctor or nurse to talk about your treatment plan.

“ At my pre-chemo meeting, my NHS Clinical Nurse Specialist gave me lots of Macmillan literature which I found very helpful. ”

Christina, diagnosed with non-Hodgkin lymphoma

Making treatment decisions

You and your doctor can decide together on the best treatment plan for you. Your doctor is an expert in the best treatments. But you know your preferences and what is important to you. You can decide how involved you want to be in your treatment plan.

Sometimes doctors need to review a treatment plan. This may be when more information about the cancer becomes available – for example, when the doctor knows the results of surgery to remove the cancer. It may mean making more decisions with your doctor.

Choosing between treatments

Doctors sometimes ask you to choose between different treatments. This is usually when 2 treatments work in a similar way.

It can help to talk to your family or friends about your treatment options. Your doctor or nurse can help you with your decision. You do not usually need to decide straight away.

You could write a list of benefits and disadvantages for each treatment. When choosing a treatment, you may want to think about:

- the aim of the treatment – whether it is to cure the cancer or control it
- how long you need to have it for
- how it may affect your everyday life
- how much time you will need to spend in hospital
- the different side effects and how they are likely to affect you.

Your doctor or nurse may give you printed information or show you videos about your treatment options. They may also show you web-based tools (decision-making aids) to help you make your decision.

We have more information in our booklet [Making treatment decisions](#) that you may find useful.

You can order our booklets and leaflets for free.

Visit orders.macmillan.org.uk or call [0808 808 00 00](tel:08088080000).



Giving your permission (consent)

Doctors need your permission (consent) before you have any treatment. They will give you all the information you need to make your decision. We explain this in our section on [talking about your treatment plan](#).

You can give consent in writing when you sign a form that your doctor gives you, agreeing to a treatment. Or it can be a spoken agreement with your doctor. Your doctor records your consent in your patient notes.

You may decide not to have treatment even when your doctor advises you to have it. If you refuse treatment, your decision must be respected. But your doctor needs to make sure you have all the information you need to make your decision. You need to understand all your treatment options and what will happen if you do not have the treatment. Always talk to your doctor about any concerns you have, so they can give you the best advice.

Second opinion

A second opinion is an opinion from a different doctor about your treatment. If you think you want a second opinion, talk to your cancer doctor or GP first. Tell them your concerns or ask them to explain anything you do not understand. This might help reassure you.

If you still want a second opinion, you can ask your cancer doctor or GP to arrange it. They are usually happy to do this. You may have to travel to another hospital to get a second opinion. Getting a second opinion could delay your treatment. Check with your doctor if this delay could be harmful to you.

If the doctor you see for the second opinion gives you the same advice, this can reassure you. Sometimes they give you other treatment options to think about.

We have more information about getting a [second opinion](#) on our website.

Clinical trials – research

Clinical trials are a type of medical research involving people. They are important because they show which treatments are most effective and safe. This helps healthcare teams plan the best treatment for the people they care for.

Trials may test how effective a new treatment is compared to the current treatment used. Or they may get information about the safety and side effects of treatments.

Some trials help answer questions about treatments we already use. They may test whether combining treatments

is more effective. Or they may research different ways to give a treatment so it works better or causes fewer side effects.

Clinical trials also research other areas of cancer care. These include diagnosis and managing side effects or symptoms.

Taking part in a clinical trial

Your cancer doctor or specialist nurse may talk to you about taking part in a clinical trial. Or you could ask them if there are any trials suitable for you.

Joining a trial is always your decision. If you join and then change your mind, you can leave at any time. You do not have to give a reason. Your healthcare team will support you whatever you decide. You will always have the standard treatment for the type and stage of cancer you have.

Not all hospitals have the expertise or resources to take part in certain trials. This means for some trials you may have to travel to a different hospital.

on our website. Visit [macmillan.org.uk/clinical-trials](https://www.macmillan.org.uk/clinical-trials)



A research nurse or doctor will give you information about the trial. You can ask them any questions you have. It is important to understand what is involved before you agree (consent) to take part. They will explain the possible benefits and any possible risks of the trial. Clinical trials are designed with safety measures to keep any risks to you as low as possible.

Some trials involve collecting blood samples, or tissue samples from a biopsy. This often happens as a standard part of your treatment. But your research nurse or doctor will explain if they need to take extra samples for the trial.

Your samples can only be stored and used for research if you give your permission. Your name is removed from the samples before they are used. This means you cannot be identified.

Fertility and cancer treatment

Fertility means being able to get pregnant or make someone pregnant. Some cancer treatments for lymphoma can affect your fertility.

If there is a risk your cancer treatment might affect your fertility, your cancer doctor or specialist nurse should talk to you about fertility preservation. This will happen before you start treatment.

We have more information you may find useful in our booklet [Cancer and fertility](#). Or you can visit macmillan.org.uk/fertility



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Treatment overview

There are different types of treatment for NHL. You may need just 1 type of treatment or a combination of treatments.

Often treatment involves a combination of cancer drugs such as chemotherapy, steroids, targeted therapy or immunotherapy drugs. Cancer drug treatment is also called systemic anti-cancer therapy (SACT).

Other treatments that may be used include radiotherapy, stem cell transplant and sometimes, CAR-T cell therapy. Your cancer doctor may also talk to you about taking part in a clinical trial. They can let you know if one is suitable for you.

The treatment you have will depend on:

- the type and stage of the lymphoma
- if it is high grade or low grade
- the symptoms you have
- which parts of your body are affected
- your general health and fitness
- your preferences.

This is general information and does not cover all situations.

We have information on our website about treating specific [types of NHL](#). We also have information about treating lymphoma that starts:

- in the skin – this is called primary cutaneous lymphoma
- in the brain or spinal cord – this is called primary CNS lymphoma.

Low grade non-Hodgkin lymphoma

Early stage, low grade lymphoma (stage 1 or 2)

If you have early stage, low grade NHL you do not always need to start treatment straight away. This is because low grade lymphomas usually grow slowly. Instead, you will be monitored for signs that you need to start treatment. This is called [watch and wait](#).

Some people may be offered radiotherapy if the affected lymph nodes are close together, even if they do not have any symptoms. This often makes the lymphoma disappear completely. Some people are cured after radiotherapy alone.

If radiotherapy is not suitable for you, your treatment options will be the same as those used for advanced lymphoma.

Advanced stage, low grade lymphoma (stage 3 or 4)

If you have advanced stage, low grade NHL your treatment usually depends on whether you have symptoms or not.

If you are not having problems with symptoms, your doctor may ask you to choose between:

- delaying treatment until symptoms develop – this is called watch and wait
- having treatment with a targeted therapy drug called rituximab.

If you have symptoms, the most commonly used treatments are:

- chemotherapy with rituximab or a similar targeted drug – sometimes called chemoimmunotherapy
- rituximab on its own.

Treatment is often very successful at shrinking the lymphoma so that you feel better and have fewer symptoms. This is called remission. Remission may last years. But treatment will not fully cure lymphoma and eventually the lymphoma may come back. It can be treated again and may be put into remission again.

Advanced stage, low grade NHL can be controlled for a long time in this way. Most people have a good quality of life between courses of treatment.

Sometimes radiotherapy may also be used to shrink an area of lymphoma if it is causing symptoms.

If low grade lymphoma becomes high grade

Over time, some low grade lymphomas can change and become high grade. This is called transformation. It is not common. If this happens, the lymphoma is treated as a high grade lymphoma.

High grade non-Hodgkin lymphoma

High grade NHL is usually fast-growing and needs to be treated straight away. The aim is to make the lymphoma disappear completely. This is called complete remission.

High grade NHL is usually treated with a combination of:

- chemotherapy
- steroids
- targeted therapy drugs such as rituximab and polatuzumab.

Treatment can often shrink high grade lymphoma very quickly. Sometimes, radiotherapy is given after chemotherapy. This is usually if:

- the lymph nodes were very enlarged (bulky)
- there was an area of lymphoma outside the lymph nodes before you had chemotherapy.

Radiotherapy may also be used if the lymphoma is only in 1 area of the body.

Many people with high grade NHL are cured. But if the lymphoma does not completely respond to treatment your doctor may talk to you about having more intensive treatment.

Intensive treatments include:

- CAR-T cell therapy
- high-dose chemotherapy with stem cell support (autologous stem cell transplant)
- donor stem cell treatment (donor or allogeneic stem cell transplant).

If non-Hodgkin lymphoma comes back

Treatment can often cure high grade NHL. But, in some people, the lymphoma comes back. This is called a relapse or a recurrence. If this happens, it may be possible to have more treatment to try to cure it. The treatment is usually more intensive. This is to try to get the lymphoma into remission.

Low grade NHL cannot usually be cured. It nearly always comes back or starts to grow again at some point after treatment. You can have further treatment to control the lymphoma. This can often keep people feeling well for long periods of time.

If lymphoma comes back, it might be in the same area where it was before. Or it could affect another part of the body. If it causes symptoms, they may be the same as before or different.

You may have 1, or a combination, of the following treatments:

- Chemotherapy using different drugs. These drugs are usually stronger than ones you had before.
- [Targeted therapies and immunotherapy drugs](#). You may have a different drug than you have had before.
- [Radiotherapy](#) to treat a new area of lymphoma in the body, or an area that is causing symptoms. If you had radiotherapy before, you may not be able to have it again in the same area. This is due to the risk of [late and long term side effects](#) such as effects on the heart. Your cancer doctor, radiologist or specialist nurse can talk to you more about this.
- High-dose chemotherapy with [stem cell support](#) (autologous stem cell transplant). You may have intensive chemotherapy to put the lymphoma into remission and then treatment with your own stem cells.
- Donor or allogeneic stem cell transplant. Sometimes it is possible to have intensive chemotherapy to put the lymphoma into remission followed by treatment with a donor's stem cells.
- [CAR-T cell therapy](#) may be used to treat some types of high grade NHL that have come back after treatment with chemotherapy and other cancer drugs.

For some people with low grade lymphoma, the doctor may suggest monitoring the lymphoma with regular tests rather than starting more treatment straight away. This is called [watch and wait](#).

Watch and wait

If you have low grade lymphoma your cancer doctor may suggest you wait before starting treatment.

Instead, you have regular tests and appointments to monitor the lymphoma and check for signs that you need to start treatment. This is called watch and wait. It may also be called active surveillance or active monitoring. It is a way of delaying treatment until it is needed.

Your cancer doctor may suggest watch and wait if:

- you have low grade lymphoma and you do not have symptoms or symptoms are not causing you any problems
- you have low grade lymphoma that has come back after treatment, but you do not have symptoms or symptoms are not causing any problems.

Low grade lymphoma often develops slowly, and you may not need treatment for a long time.

Advantages of watch and wait

Sometimes people worry about not having treatment straight away. But there can be advantages to delaying treatment.

- Studies have shown that people who delay treatment until it is needed usually live as long as people who start treatment straight away. They also respond just as well to treatment when this is needed.
- You will avoid the risk of treatment side effects for as long as possible.
- Effective treatments can be kept in reserve for you until they are needed.

- Low grade lymphoma can go through periods when it is more active, and others when it is stable or even shrinks. In some people, the lymphoma shrinks without any treatment. This is called spontaneous regression.
- Some people do not need treatment for many years. Or they may never need it.

Monitoring lymphoma

Even when you are not having any treatment for lymphoma, you will meet with your cancer doctor or specialist cancer nurse regularly. At each appointment, they will check you for signs that you may need to start treatment. These signs might include:

- unexplained weight loss, severe night sweats or unexplained fever (B symptoms)
- a lower than normal number of red blood cells (anaemia), white blood cells or platelets in your blood
- the lymphoma starting to grow or change (transform) into a faster growing type
- the lymphoma starting to affect an important organ, such as a kidney
- the [lymph nodes](#) getting bigger and bulky
- a build-up of fluid in the tummy area (ascites) or in the lining of lungs (pleural effusion).

We have more information on [ascites](#) and [pleural effusion](#) on our website.

Coping with watch and wait

If you are worried about delaying treatment, here are some helpful tips:

- Make sure you understand why watch and wait is recommended and what other treatment options there may be. If you have any concerns, talk to your cancer doctor.
- Think of your time without treatment as an opportunity to make the most of a good quality of life. Use it to do things you normally enjoy, and to get as fit and healthy as you can. You may find our booklets [Healthy eating and cancer](#) and [Physical activity and cancer](#) helpful.
- Try to focus on the present rather than what might happen in the future.
- Express your feelings. You can do this by talking to family and friends, joining a support group or online forum, or by keeping a journal.

Although watch and wait can be difficult to adjust to at first, many people find it gets easier with time.

You can order our booklets and leaflets for free.
Visit orders.macmillan.org.uk or call [0808 808 00 00](tel:08088080000).





Cancer drug treatments

Treatment for non-Hodgkin lymphoma (NHL) often includes a combination of cancer drugs.

You might hear this type of treatment described in several different ways. For example, your doctor or nurse might use the brand names of the drugs you are given. Or they might use some of the following terms to describe your treatment:

- Chemotherapy drugs – these are anti-cancer (cytotoxic) drugs that destroy lymphoma cells. Cytotoxic means the drugs are toxic to cells.
- Targeted therapy drugs – these are drugs that targets something in or around the lymphoma cell that is helping it grow and survive.
- Immunotherapy drugs – these are drugs that use the body's immune system to find and attack lymphoma cells.
- Chemoimmunotherapy – this means having a combination of chemotherapy drugs and targeted or immunotherapy drugs. Having different types of drugs together means lymphoma cells are attacked in several different ways and can make treatment more effective.

Your cancer doctor or specialist nurse will talk to you about your treatment. They will answer any questions you may have. They will explain:

- which drugs you will have
- how long your treatment will last.

Treatment will depend on [the grade](#), [stage](#) and type of non-Hodgkin lymphoma you have. Sometimes your doctor may advise changes to your cancer drugs. This depends on your situation and your treatment plan.

Some people have a higher risk of more serious side effects with some combination drug treatments. Depending on your general health and age, your doctor may suggest combinations that have fewer side effects.

Contraception

Your cancer team will advise you not to get pregnant or make someone pregnant while having cancer drug treatments and for some time afterwards. The drugs may harm a developing baby. It is important to use contraception to prevent pregnancy. Follow your cancer team's advice about:

- what types of contraception to use
- how long after treatment you should continue to use contraception.

Having cancer drug treatment

Most people have treatment as an outpatient. You usually have a course of treatment over a few days. But sometimes you have it all in 1 day. Your doctor, nurse or pharmacist will discuss your treatment plan with you. They will give you information about the possible side effects of all the drugs you will have. It is important to follow their advice. Always tell them if you have side effects or if they get worse.

After your first treatment, you have a break of a few weeks without treatment. The break allows your body to recover from any side effects before you start the next cycle.

A course of treatment with breaks is called a cycle of treatment.

Your whole course of treatment may last several months. During this time, you have regular check-ups at the hospital. You usually have a scan before starting treatment and then again at the end. You may also have a scan part way through your course of treatment. These scans show your doctors if the treatment has shrunk the lymphoma.

Cancer drugs into a vein

Treatments given into a vein (intravenously), go directly into the blood and are carried to all areas of the body.

Your treatment may be given through:

- a cannula – a short, thin tube put into a vein in the back of the hand or the lower arm
- a central line – a long, thin tube put into a vein in the chest
- a PICC (peripherally inserted central venous catheter) – a line put into a vein in the arm and threaded through to a vein in the chest
- a portacath – an implantable line (catheter) put into a vein, with an opening (port) under the skin on the chest or arm.

We have more information about [central lines](#), [PICC lines](#) and [implantable ports](#) on our website including how they are put in and how to look after them.

When your cannula, line or port is in place, the cancer drugs can be given into it:

- by injection
- as a drip
- through a pump.

Your nurse will check that the cannula, line or port is working before giving you the chemotherapy.

Your line or port

If you have a line or port, it can be left in until your whole course of treatment is over. This means you will not need a cannula or needles put into the arm every time you have treatment. Your doctor or nurse

can take blood tests from your line or port. You can have antibiotics, fluids and blood transfusions through it too.

When your course of treatment is over, the line or port will be taken out. A doctor or nurse will do this for you, usually in the outpatient department.

Chemotherapy into the spinal fluid (intrathecal chemotherapy)

With some types of NHL, there is a higher risk of lymphoma cells spreading to the brain. This can happen with some types of high grade NHL or when lymphoma is in certain areas of the body.

You may have a type of chemotherapy to treat or prevent lymphoma in the brain. This is called intrathecal chemotherapy. A doctor puts a small amount of liquid chemotherapy into the spinal fluid. This is done in a similar way to a [lumbar puncture](#).

You usually have intrathecal chemotherapy as an outpatient. The chemotherapy drug most commonly used is methotrexate.

Another way to treat or prevent lymphoma in the brain is to give high doses of methotrexate into a vein. In this situation, you may not need intrathecal chemotherapy.

We have more information on our website. Visit [macmillan.org.uk/intrathecal-chemotherapy](https://www.macmillan.org.uk/intrathecal-chemotherapy)

Drug combinations for non-Hodgkin lymphoma

There are many combinations of drugs used to treat non-Hodgkin lymphoma.

If you are looking for a specific NHL drug treatment, you can search on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs). Or you can call us on [0808 808 00 00](tel:08088080000), 7 days a week, 8am to 8pm. [Lymphoma Action](#) also has more information about chemotherapy and chemoimmunotherapy treatments used to treat NHL.

Drug combinations are often named after the initials of the drugs used. For example, the drugs listed below are 2 treatments for non-Hodgkin lymphoma.

Pola-R-CHP

This is used as treatment for diffuse large B-cell lymphoma (DLBCL). Pola-R-CHP is made up of the following drugs:

- Polatuzumab vedotin (Polivy®), a targeted therapy that delivers a chemotherapy drug to B-cells. It is given as an infusion into a vein.
- Rituximab, a targeted therapy drug that triggers the body's immune system to target and destroy B-cells. It is given as an infusion (drip).
- Cyclophosphamide, a chemotherapy drug, given as a slow injection (bolus) or infusion into a vein.
- Doxorubicin, a chemotherapy drug, given as a bolus into a vein.
- Prednisolone, a steroid, given as a tablet.

O-CVP

This is used as treatment for follicular lymphoma. O-CVP is made up of the following drugs:

- Obinutuzumab (Gazyvaro®), a targeted therapy called a monoclonal antibody. It is given as an infusion (drip) into a vein.
- Cyclophosphamide, a chemotherapy drug given into a vein.
- Vincristine, a chemotherapy drug given into a vein.
- Prednisolone, a steroid given as a tablet.

Other drugs

Other drugs that may also be used to treat NHL include:

- bendamustine
- chlorambucil.

Targeted therapy drugs

Most combination treatments include a targeted therapy drug. But you might have a targeted therapy drug by itself in some situations.

For example, you might have a targeted therapy drug:

- after other treatments to keep the lymphoma in remission for as long as possible – this is called maintenance treatment
- if other treatments have not been effective.

Targeted therapy treatment is often described in several different ways. For example, your doctor or nurse might use the name of the drug. Or they might use 1 of the following terms to describe your treatment.

Monoclonal antibody

A monoclonal antibody is made of a protein that can recognise and target a specific cell in the body. For example, a monoclonal antibody might target and lock on to a protein found on lymphoma cells so that the cell cannot survive.

Monoclonal antibodies used to treat NHL include:

- rituximab – this is used to treat some types of B-cell NHL, including follicular lymphoma (FL) and diffuse large B-cell lymphoma (DLBCL)
- obinutuzumab – this is used to treat FL and small lymphatic lymphoma (SLL).

Some monoclonal antibodies are attached to chemotherapy drugs. These are called antibody drug conjugates. The monoclonal antibody allows the chemotherapy to be delivered directly to lymphoma cells. This type of drug includes:

- polatuzumab vedotin
- loncastuximab tesirine.

Both of these drugs are used to treat DLBCL.

Most antibody drugs are given into a vein as a drip (intravenous). Rituximab may be given as an injection under the skin after you have had at least 1 dose into a vein.

Bi-specific antibody

Monoclonal antibodies that can recognise 2 different targets are called bi-specific antibodies. The following drugs target the lymphoma cells and lymphocytes that are able to attack them:

- glofitamab – this is given into a vein as a drip (intravenous)
- epcoritamab – this is given as an injection under the skin.

These drugs are used to treat DLBCL if other treatments have not been effective.

Targeted therapy for mantle cell lymphoma

Bortezomib (Velcade®) is a targeted therapy used to treat mantle cell lymphoma (MCL). It is usually given as an injection into a vein (intravenous) or sometimes as an injection under the skin (subcutaneous).

Ibrutinib (Imbruvica®) may also be used to treat MCL after other treatments have already been used. You take it as a tablet.

You can call us free on [0808 808 000](tel:0808 808 000) for more information about possible side effects.

We have more information about possible side effects of these drugs on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs)



Cancer drug side effects

Different drugs cause different side effects. This information is about some of the more common side effects of the drugs used to treat lymphoma.

You may get some of the side effects mentioned, but you are very unlikely to get all of them. Although side effects can be hard to deal with, they usually disappear gradually when your treatment ends.

It is important to tell your cancer team if you have any side effects while you are having treatment. They will give you 24-hour contact numbers for the hospital. If you feel unwell or need advice, you can call at any time of the day or night. Save these numbers in your phone or keep them somewhere safe.

Your cancer team may adjust your treatment to control side effects or to help to prevent more serious problems.

You can find out more about specific drugs on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs)

Call the Macmillan Support Line free on [0808 808 00 00](tel:08088080000), 7 days a week, 8am to 8pm.



Chemotherapy side effects

Risk of infection

This treatment can reduce the number of white blood cells in your blood. These cells fight infection. If your white blood cell count is low, you may be more likely to get an infection. A low white blood cell count is called neutropenia.

An infection can be very serious when the number of white blood cells is low. It is important to get any infection treated as soon as possible. If you have any of the following symptoms, contact the hospital straight away on the 24-hour number:

- a temperature above 37.5°C
- a temperature below 36°C
- you feel unwell, even with a normal temperature
- you have symptoms of an infection.

Symptoms of an infection include:

- feeling shivery and shaking
- a sore throat
- a cough
- breathlessness
- diarrhoea
- needing to pass urine (pee) often, or discomfort when you pass urine.

It is important to follow any specific advice your cancer treatment team gives you.

Your white blood cell count will usually return to normal before your next treatment. You will have a blood test before having more treatment. If your white blood cell count is low, your doctor may delay your treatment for a short time, until your cell count increases.

We have a cancer treatment alert card for people having treatment that can cause serious, life-threatening side effects. This includes chemotherapy. The card should be carried with you at all times and will make sure you are seen immediately if needed. You can order this from our website. Visit orders.macmillan.org.uk

Anaemia (low number of red blood cells)

This treatment can reduce the number of red blood cells in your blood. Red blood cells carry oxygen around the body. If the number of red blood cells is low, this is called anaemia. You may feel:

- very low in energy
- breathless
- dizzy and light-headed.

If you have these symptoms, contact the hospital straight away on the 24-hour number. You may need treatment for anaemia.

Bruising and bleeding

This treatment can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot.

If the number of platelets is low, you may bruise or bleed easily. You may have:

- nosebleeds
- bleeding gums
- heavy periods
- blood in your urine (pee) or stools (poo)
- tiny red, brown or purple spots that may look like a rash – these spots can be harder to see if you have black or brown skin.

If you have any unexplained bruising or bleeding, contact the hospital straight away on the 24-hour number. You may need a drip to give you extra platelets. This is called a platelet transfusion.

Feeling sick

Your doctor, nurse or pharmacist will prescribe anti-sickness drugs to help prevent or control sickness. Take the drugs exactly as they tell you to, even if you do not feel sick. It is easier to prevent sickness than to treat it after it has started.

If you feel sick, take small sips of fluid often and eat small amounts regularly. It is important to drink enough fluids. If you continue to feel sick, or if you are sick (vomit) 1 to 2 times in 24 hours, contact the hospital on the 24-hour number as soon as possible. They will give you advice. They may change your anti-sickness treatment. Let them know if you still feel sick.

Constipation

This treatment can cause constipation. Constipation means that you are not able to pass stools (poo) as often as you normally do. It can become difficult or painful. Here are some tips that may help:

- Drink at least 2 litres (3½ pints) of fluids each day.
- Eat high-fibre foods, such as fruit, vegetables and wholemeal bread.
- Do regular gentle exercise, like going for short walks.

If you have constipation, contact the hospital on the 24-hour number for advice. They can give you drugs called laxatives to help.

If you have not been able to pass stools for over 2 days and are being sick, contact the 24-hour number straight away.

Changes to your taste

Some foods may taste different or have no taste. Try different foods to find out what tastes best to you. You may also get a bitter or metallic taste in your mouth. Your doctor, nurse or pharmacist can give you advice. It might help to try:

- sucking sugar-free sour or boiled sweets
- eating cold foods
- eating sharp-tasting fresh fruit.

Taste changes usually get better after treatment ends. We have more information about coping with changes to taste in our booklet [Eating problems and cancer](#). We also have more information on our website. Visit macmillan.org.uk/eating-problems

“ Chemotherapy did affect my appetite and sense of taste. Some foods which I had always enjoyed didn't appeal anymore. It was about a year before things returned to normal. ”

Stuart, diagnosed with non-Hodgkin lymphoma

Sore mouth and throat

This treatment may cause a sore mouth and throat. You may also get mouth ulcers. This can make you more likely to get a mouth or throat infection. Use a soft toothbrush to clean your teeth or dentures in the morning, at night and after meals.

Contact the hospital straight away on the 24-hour number, if:

- a sore mouth or throat affects how much you can drink or eat
- your mouth, tongue, throat or lips have any blisters, ulcers or white patches.

They can give you advice, and mouthwash or medicines to help with the pain or to treat any infection. Follow their advice and make sure you:

- drink plenty of fluids
- avoid alcohol and tobacco
- avoid food or drinks that irritate your mouth and throat.

Feeling tired

Feeling tired is a common side effect of this treatment. It is often worse towards the end of treatment and for some weeks after it has finished. Try to pace yourself and plan your day so you have time to rest. Gentle exercise, like short walks, can give you more energy.

If you feel sleepy, do not drive or use machinery.

We have more information about tiredness in our booklet [Coping with fatigue \(tiredness\)](#) and on our website.

Visit macmillan.org.uk/tired

Hair loss

Your hair will get thinner. Or you may lose all the hair from your head. You may also lose your eyelashes and eyebrows, as well as other body hair. Hair loss usually starts after your first or second treatment.

If you want to cover up hair loss, there are different ways you can do this. Your nurse will give you information about [coping with hair loss](#). We also have more information in our [Coping with hair loss](#) booklet.

Remember to protect your skin from the sun. Use suncream with a sun protection factor (SPF) of at least 30 on your scalp. Or cover up with a hat or scarf.

Hair loss is almost always temporary. Your hair will usually grow back after treatment ends.

You can order our booklets and leaflets for free.
Visit orders.macmillan.org.uk or call [0808 808 00 00](tel:08088080000).



Effects on the heart

This treatment can affect how the heart works. You may have tests to check how well your heart is working. These may be done before, during and after treatment.

If the treatment is causing heart problems, your doctor may change the type of treatment you are having.

Contact the hospital straight away on the 24-hour number if you have any of these symptoms during or after treatment:

- breathlessness
- dizziness
- changes to your heartbeat
- swollen feet and ankles.

Other conditions can cause these symptoms, but it is important to get them checked by a doctor.

Always call 999 if you have:

- chest pain, pressure, heaviness, tightness or squeezing across the chest
- difficulty breathing.

Effects on the lungs

Before you start treatment, you may have tests to check how well your lungs are working. This is because some drugs used to treat lymphoma can affect the lungs. If you become more breathless or develop a cough, tell your doctor or nurse straight away.

If you are a smoker, it is best to try and stop smoking as soon as you can before having treatment. We have more information about [giving up smoking](#) on our website.

Numb or tingling hands or feet (peripheral neuropathy)

This treatment may affect the nerves in your fingers and toes. This can cause numbness, tingling or pain in your hands or feet. This is called peripheral neuropathy. You might find it hard to do fiddly tasks such as fastening buttons or tying shoelaces.

If you have these symptoms, always tell your doctor, nurse or pharmacist. They sometimes need to change the drug or the dose of the drug. The symptoms usually improve slowly after treatment ends. But for some people they continue and are a long-term side effect of treatment.

We have more information you may find useful on our website.

Visit macmillan.org.uk/peripheral-neuropathy

Targeted therapy side effects

Allergic reaction

Sometimes, people have a reaction while being given a monoclonal antibody, or soon after. Symptoms may include:

- feeling hot or flushed
- a skin rash
- itching
- shivering.

A reaction is most likely to happen the first time you have the drug. Your nurse will give it slowly to reduce the chance of a reaction. Any reaction can be treated quickly.

Lowered numbers of blood cells

These drugs can temporarily reduce the number of normal white blood cells in your blood. This is more likely if you are having chemotherapy at the same time. During this time, you are more likely to get an infection.

If you have any [signs of infection](#) it is very important to contact the hospital for advice immediately.

These drugs can also reduce the number of red blood cells and platelets in your blood. This can make you tired. You may also bruise or bleed more easily.

Cytokine release syndrome (CRS)

Bi-specific antibodies such as glofitamab and epcoritamab help white blood cells called lymphocytes target lymphoma cells. As the lymphocytes find and recognise the lymphoma cells, chemical messengers called cytokines are released.

Cytokines help your immune system attack the lymphoma cells. But large amounts can make you feel unwell with flu-like symptoms. This is called cytokine release syndrome or CRS.

CRS usually happens after the first treatment. But it can happen later.

If you have any of the following symptoms after you go home, contact the hospital straight away on the 24-hour number:

- a high temperature
- a fast heart rate
- dizziness
- muscle and joint pain
- diarrhoea
- feeling sick and being sick
- difficulty breathing.

Most people will have mild CRS symptoms. But if CRS becomes more serious, you may need treatment and support to stop it getting worse. Some people will need treatment in intensive care for a time.

Other common side effects

Other side effects may include:

- feeling sick
- diarrhoea
- constipation
- skin changes.

Steroid side effects

You might take steroids for a few days during each cycle of chemotherapy for lymphoma.

Possible side effects of steroids include:

- tummy pain or indigestion
- increased appetite and weight gain
- swollen ankles
- increased risk of infection
- having more energy or feeling restless
- changes in your mood
- difficulty sleeping
- skin rash or acne
- increased sugar levels in the blood
- bone thinning (osteoporosis).

Tell your cancer doctor or specialist nurse if you have any side effects that are causing you trouble.

If you have indigestion, it can help to take steroids with food. Your doctor may also prescribe drugs to prevent indigestion. Tell your cancer doctor or specialist nurse if you have stomach pains while taking steroids.

If you have difficulty sleeping, it may help to take steroids in the morning.

Sometimes, steroids cause a temporary increase in your blood sugar level. You may have regular blood or urine tests to check this. During treatment, tell your cancer doctor or specialist nurse if you get very thirsty or if you are passing urine (peeing) more than usual. If you have diabetes, your blood sugar levels may be higher than usual. Your cancer doctor will talk to you about how to manage this. You may need to change your insulin or tablet dose. If you have diabetes, tell your cancer doctor before you start taking steroids.

Having high doses of steroids can cause bone loss and increase the risk of fractures. The risk can increase the longer you take them. Doing regular exercise, such as walking, and eating a healthy diet can improve your bone health. We have more information in our booklet [Bone health and cancer treatment](#) you may find useful.

Side effects usually get better when you finish taking steroids. But you may feel tired, have aches and pains, or have low moods for 2 to 3 days after you stop taking them. This is because your body is adjusting to the change in steroid levels.

Radiotherapy

Radiotherapy uses high-energy rays called radiation to treat cancer. It destroys cancer cells in the area where the radiotherapy is given.

Some normal cells in the area being treated can also be damaged by radiotherapy. This can cause side effects. As the normal cells recover, the side effects usually get better.

Radiotherapy is always carefully planned by a team of experts. They will plan your treatment so it does as little harm as possible to normal cells.

We have more information you may find useful in our booklet [Understanding radiotherapy](#).

Radiotherapy for non-Hodgkin lymphoma

Radiotherapy can be used to treat many types of non-Hodgkin lymphoma (NHL). You may be treated with radiotherapy:

- as the main treatment for low grade non-Hodgkin lymphoma that is only in 1 group of lymph nodes
- after chemoimmunotherapy to reduce the risk of NHL coming back
- to treat an area of NHL that has not completely responded to chemotherapy
- to treat NHL that has come back in just 1 group of lymph nodes
- to help control symptoms, such as pain.

Planning your radiotherapy treatment

You will have a hospital appointment to plan your treatment. You will usually have a CT scan of the area to be treated. Some people may have an MRI or a PET scan. During the scan, you need to lie in the position that you will be in for all your radiotherapy treatments.

You will not receive any results from this scan. Your radiotherapy team use information from it to plan:

- the dose of radiotherapy and surrounding tissues
- the area to be treated.

You may have some small, permanent markings made on your skin. The marks are about the size of a pinpoint. They are made in the same way as a tattoo. The marks help the radiographer make sure you are in the correct position for each session of radiotherapy.

These marks will only be made with your permission. If you are worried about them or already have a tattoo in the treatment area, tell your radiographer. They can discuss this with you.

Radiotherapy to your chest

If you have radiotherapy to your chest, your therapeutic radiographer may teach you how to take a deep breath and hold it briefly while having treatment. This is called deep inspiration breath hold (DIBH). DIBH helps protect your heart by moving it away from the area being treated.

If DIBH is required, your therapeutic radiographer will discuss this further and answer any questions you may have.

The website [respire.org.uk](https://www.respire.org.uk) explains more about DIBH.

Radiotherapy to the head and neck

You may need to wear a mask during treatment sessions if you are having radiotherapy to the:

- head
- neck
- upper chest.

The mask is made to hold your head and neck still and in exactly the right position. This is made before you have treatment. We have more information on our website. Visit [macmillan.org.uk/radiotherapy-masks](https://www.macmillan.org.uk/radiotherapy-masks)

Having radiotherapy treatment

Radiotherapy is normally given as a number of short, daily treatments in a hospital radiotherapy department. A radiotherapy machine aims high-energy rays at the area of the body being treated. This type of radiotherapy is sometimes called external beam radiotherapy.

You usually have radiotherapy as an outpatient. You sometimes have it during a hospital stay. Usually, each appointment takes

 Elekta



about 10 to 30 minutes. Your radiotherapy team will explain how many treatments you will have and when you will have them. Your course of treatment may last up to a few weeks.

The person who operates the machine is called a radiographer. They give you information and support during your treatment.

At the beginning of each session, the radiographers will make sure you are in the correct position. They will tell you how long your treatment will take. When everything is ready, they leave the room, and the treatment starts. The treatment itself is not painful. It does not make you radioactive. You will not be a risk to anyone during the course of your treatment.

The radiographers can see and hear you from outside the room. There is usually an intercom, so you can talk to them if you need to during your treatment.

During treatment, the radiotherapy machine may stop and move into a new position. This is so you can have radiotherapy from different directions.

Smoking

If you smoke, it is important to try to stop. Stopping smoking may make radiotherapy work better. It may also reduce the side effects of treatment.

It can be difficult to stop smoking, but you can get support. Your doctor or nurse can give you advice. There are also NHS services to help people stop smoking.

We have more information to help you [stop smoking](#) on our website.

Side effects of radiotherapy

Radiotherapy can cause side effects in the area of your body that is being treated. You may also have some general side effects, such as feeling tired. Sometimes side effects get worse for a time during and after you have finished radiotherapy before they get better.

Your cancer doctor, specialist nurse or radiographer will tell you what to expect. They will give you advice on what you can do to manage side effects. If you have any new side effects or if side effects get worse, tell them straight away.

Radiotherapy can have [long term side effect or late effects](#). These are rare and will vary depending on the part of the body treated. Your cancer doctor, specialist nurse or radiographer can tell you more.



Tiredness

Radiotherapy often makes people feel tired. Tiredness (fatigue) may get worse as treatment goes on. If you are having radiotherapy alongside other treatments such as surgery or chemotherapy, you may feel more tired. But there are things you can do to help, such as:

- get plenty of rest
- do some gentle exercise, such as going for short walks
- eat a healthy diet and drink plenty of fluids
- ask for help with everyday tasks, if you have friends or family members who can support you.

After treatment finishes, you may continue to feel tired for weeks or months. If it does not get better, tell your cancer doctor or specialist nurse.

We have more information in our booklet [Coping with fatigue \(tiredness\)](#).

You can order our booklets and leaflets for free.
Visit orders.macmillan.org.uk or call [0808 808 00 00](tel:08088080000).



Skin reactions

The skin in the area that is treated may:

- redden or darken if you have white skin
- darken if you have black or brown skin
- feel sore or itchy.

Your radiographer or specialist nurse will give you advice on taking care of your skin. If your skin becomes sore or itchy, or changes colour, tell them straight away. They can give you advice and treatments if needed.

Skin reactions should get better within 4 to 6 weeks of treatment finishing.

During your treatment, you are usually advised to:

- wear loose-fitting clothes made from natural fibres, such as cotton
- wash your skin gently with soap and water and gently pat it dry
- avoid rubbing the skin
- avoid very hot things, for example heating pads
- avoid cooling pads – these may be helpful in some situations, but speak to your team about using them first
- avoid wet shaving
- avoid hair-removing creams or products, including wax and laser treatment
- follow your radiotherapy team's advice about using moisturisers and deodorants
- protect the treated area from the sun.

Feeling sick (nausea)

Treatment to the tummy area (abdomen) can make you feel sick or be sick (vomit).

If you feel sick, your doctor can prescribe anti-sickness (anti-emetic) drugs. If you do not feel like eating, you can replace some meals with nutritious high-calorie drinks. These are available from most chemists, or they can be prescribed by your doctor.

Diarrhoea

Radiotherapy to the tummy area may irritate the bowel and cause diarrhoea. Your doctor can prescribe medicine to help. Eating a low-fibre diet may help reduce diarrhoea. You should also drink plenty of fluids.

Hair loss

Although radiotherapy can cause hair loss, this only happens in the area being treated. For example:

- radiotherapy to the lymph nodes in your neck may cause you to lose the hair on the back of the neck
- radiotherapy to the lymph nodes in the chest may make the hair on your chest fall out.

Hair usually grows back after treatment ends.

CAR T-cell therapy

CAR T-cell stands for chimeric antigen receptor T-cell. This immunotherapy involves collecting your own T-cell lymphocytes and changing them to be better at targeting and attacking lymphoma cells.

CAR T-cell therapies used to treat lymphoma include:

- tisagenlecleucel (Kymriah®)
- axicabtagene ciloleucel (Yescarta®)
- brexucabtagene autoleucel (Tecartus®).

These are used to treat lymphoma that has not responded to other treatments or that has come back.

CAR T-cell therapy is an intensive treatment and can have serious side effects. If your doctor recommends it as part of your treatment, they will discuss the possible benefits and risks with you. Currently, it is only available in a few specialist hospitals. This means you may have to travel to a hospital some distance from your home.

Research is being done to find the best ways to use CAR T-cell therapy. Your doctor may talk to you about having treatment as part of a research trial.

Having CAR T-cell therapy

CAR T-cell therapy involves the following:

- Collecting T-cells – T-cells are taken from your blood. This usually takes about 3 to 6 hours. A nurse puts a short, thin tube called a cannula into a vein in each arm. Or they use 2 ports on your central line, if you have one. They connect this to a machine called a cell separator. Blood goes into the cell separator, which removes the T-cells from your blood. The remaining blood and blood cells are returned to your body.
- Making CAR T-cells – the collected T-cells are sent to a laboratory to be prepared. Scientists change the T-cells so that they recognise the cancer. This takes 3 to 5 weeks. These altered cells are called CAR T-cells. The number of CAR T-cells is then increased (expanded) until there are enough for your treatment.
- Getting ready for treatment – you have 3 to 5 days of chemotherapy to prepare your body for the CAR T-cells.
- Having CAR T-cell therapy – after chemotherapy, the CAR T-cells are put into your bloodstream, usually through a drip but sometimes by injection. Once in your body, the CAR T-cells will begin to attack the lymphoma cells.



After CAR T-cell therapy

You have CAR T-cell therapy during a stay in hospital. Your healthcare team will monitor you closely for any side effects. After you leave, you will be asked to stay close to the hospital for the first few weeks.

When you are ready to go home, your team will tell you about side effects you may have. They will also give you a 24-hour phone number to contact if you have side effects or feel unwell. This means you can be treated straight away if needed.

We have listed the most common side effects below.

Cytokine release syndrome (CRS)

As the CAR T-cells find and recognise the cancer cells, chemical messengers called cytokines are released. Cytokines help your immune system attack the cancer cells. But large amounts can make you feel unwell with flu-like symptoms. This is called cytokine release syndrome or CRS.

CRS usually happens within the first 10 days of treatment. But it can happen later. If you have any of the following symptoms after you go home, contact the hospital straight away on the 24-hour number:

- a high temperature
- a fast heart rate
- dizziness
- muscle or joint pain
- diarrhoea
- feeling sick or being sick
- difficulty breathing.

Most people will have mild CRS symptoms. But if CRS becomes more serious, you may need treatment and support to stop it getting worse. Some people will need treatment in intensive care for a time.

Effects on the brain (ICANS)

This treatment can cause temporary effects on the brain. This is called neurotoxicity or ICANS (immune effector cell-associated neurotoxicity syndrome).

For most people the side effects are mild. For example, you may notice changes in your handwriting. Or you may feel confused. But side effects can be more serious. You may need treatment and support to stop them getting worse. Some people will need intensive care treatment until the symptoms improve.

ICANS side effects can happen in the first weeks after treatment, and usually within the first 4 to 8 weeks. They usually get better within 1 to 2 weeks.

You must not drive or use heavy machinery for at least 8 weeks after this treatment. If you have any of the following symptoms after you go home, contact the hospital straight away on the 24-hour number:

- difficulty speaking
- difficulty writing or doing fiddly tasks, such as fastening buttons or tying shoelaces
- confusion
- reduced consciousness (being less alert)
- tremors or shaking
- loss of balance
- headaches
- seizures (fits).

Effects on blood cells

CAR T-cell therapy can reduce the levels of all of your blood cells. If you have a low number of white blood cells, this will increase your risk of infections. The cancer team will give you advice on how to protect yourself from infection.

Blood cell numbers usually recover slowly after treatment. But the levels of B-cells may stay low for longer. Low B-cell levels means your body may not produce the proteins called antibodies that fight some infections. You can have regular treatments to replace these antibodies if needed.

We have more information and tips on [avoiding infection](#) on our website.

Stem cell transplant

Stem cells are blood cells at the earliest stage of development. All our blood cells develop from stem cells in the [bone marrow](#). When the blood cells are fully developed, they go into the bloodstream. Stem cells stay inside the bone marrow.

A stem cell transplant is a treatment that can be given after high-dose chemotherapy and sometimes radiotherapy.

There are 2 types of stem cell transplant:

- Using your own stem cells. This is called an autologous transplant or high-dose chemotherapy with stem cell support. Your own stem cells are collected and stored. You then have high-dose chemotherapy. This destroys lymphoma cells, but it also affects your healthy blood cells. To help your body recover, you have your collected stem cells through a drip (infusion). The stem cells travel through the blood to the bone marrow. They then begin to make new blood cells and help you recover from the chemotherapy.
- Using stem cells from another person. This is called donor or allogeneic transplant. You have stem cells from a donor after high-dose chemotherapy and sometimes radiotherapy. The donor stem cells help your body recover by making new blood cells. They may also produce immune cells that recognise and attack any remaining lymphoma cells.

Most people with lymphoma will not need a stem cell transplant. But it may be used to treat lymphoma that:

- has not responded to other treatments
- has a higher risk of coming back
- has come back (relapsed) after treatment.

The aim is to put the lymphoma into remission or increase the chance of being cured.

A stem cell transplant is an intensive treatment. It is only suitable for people who are fit enough to cope with the side effects. If your doctor recommends it as part of your treatment, they will discuss the possible benefits and disadvantages with you.

Because stem cell transplants are complicated treatments and carry some risk, they are done in specialist hospitals. This means you may have to be treated in a hospital some distance from your home. You are likely to be in hospital for several weeks and it may take many months to fully recover.

Research is being done to find the best ways to use stem cell transplants to treat lymphoma. Your specialist may talk to you about having a stem cell transplant as part of a [clinical trial](#).

Having a stem cell transplant

A stem cell transplant works best if you are in remission at the time. For this reason, you will have chemotherapy to put the lymphoma into remission before having a stem cell transplant.

Once you are in remission, stem cells are collected from either your own blood or the donor's blood and they are stored. You or your donor usually have this done as an outpatient. You are then admitted to hospital to have several more days of chemotherapy a few weeks later. This is called conditioning treatment. Sometimes you also have radiotherapy.

The aim of conditioning treatment is to remove any remaining lymphoma cells and to prepare your body for the healthy cells.

After the conditioning treatment, you have the stem cells into the blood through a drip. The stem cells travel to the bone marrow. After a few weeks, the bone marrow starts to make blood cells again. Until the bone marrow recovers, you are at a high risk of getting an infection and will need to stay in hospital. You will also need some time to recover when you go home from hospital.

A stem cell transplant is a complex treatment. The organisations [Anthony Nolan](#) and [Lymphoma Action](#) have detailed information.





After your treatment

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After treatment

People often have many different feelings when they finish lymphoma treatment. You may feel relieved that treatment has finished, but worried about what will happen in the future.

You will have appointments with your cancer doctor or specialist nurse less often than before. But at the same time, you may have new challenges to cope with and things to think about.

We have information in this section about some of the things people ask about after lymphoma treatment. But you may have other questions or need information about something else. If there is something you want to talk about at any point after treatment, you can:

- call the Macmillan Support Line
- chat to our specialists online
- visit our Online Community to talk to people who have been affected by lymphoma, share your experience, and ask an expert your questions.

Call the Macmillan Support Line free on [0808 808 00 00](tel:08088080000), 7 days a week, 8am to 8pm.



Follow-up appointments

At the end of your treatment, you will have a meeting with your cancer doctor or specialist nurse. They will explain:

- how often you will have follow-up appointments
- any possible signs of the lymphoma returning that you should be aware of
- any possible late effects of treatment.

Your cancer doctor or specialist nurse may give you and your GP a letter with this information and a list of the treatments you had. This is called a treatment summary.

How often you have follow-up appointments depends on:

- the type of lymphoma you had
- the treatment you had
- your situation.

Your cancer doctor or specialist nurse will explain what to expect. Appointments may be face to face in a clinic. Or they may be by phone or video call.

To begin with, your appointments may be every 3 months or so. After 2 years, you may have fewer appointments. Or you may stop having appointments.

Instead of appointments, some people are asked to get in touch when they need to see their lymphoma team. This is sometimes called patient initiated follow-up or PIFU. You are given advice on what to be aware of and when to book an appointment, if needed.

If have any concerns in between appointments, you can always contact the hospital. You do not need to wait until your next appointment.

At your follow-up appointments

Your cancer doctor will usually examine you. You may have blood tests and have your weight checked. You will not usually have scans, unless you develop symptoms that need to be checked.

Your cancer doctor and specialist nurse will want to know how you are feeling. They will be checking for any signs that the lymphoma may have come back. They also want to check how you are recovering from any side effects. Appointments are a good time for you to talk to your cancer doctor or specialist nurse about any concerns you have.

Many people find they get anxious before appointments. This is natural. It can help to get support from family or friends.

We have more information in our booklet [Worrying about cancer coming back](#) that you may find useful.

Signs of lymphoma coming back

Sometimes lymphoma comes back. This is called a relapse or recurrence. If lymphoma comes back, it is usually discovered when symptoms develop. Your cancer doctor or specialist nurse will tell you what to be aware of.

Possible signs and symptoms include:

- new lumps or swellings
- heavy drenching sweats at night
- unexplained high temperatures, over 38°C (100.4°F)
- unexplained weight loss
- extreme tiredness
- general itching or a rash that does not go away
- a cough or breathlessness that does not get better.

You may have other new symptoms that are worrying you. If you have any symptoms, it is important to have them checked. Contact your cancer doctor or specialist nurse for advice. They can arrange for you to have an appointment if needed. Lymphoma that comes back can often be treated again.

Late effects of treatment

Side effects from lymphoma treatments usually improve during treatment or in the weeks and months afterwards. But sometimes a side effect might not go away. And some side effects may only develop months or years after treatment. These are called long term or late effects.

Not everyone has long term or late effects after lymphoma treatment. And many side effects do get better over time. Your cancer doctor or specialist nurse will explain if there is a risk that your treatment may cause this type of side effect. This can depend on different factors, such as the type of treatment and your age when you have it.

Your cancer doctor or specialist nurse can give you information about:

- what side effects are most likely for you
- how side effects can be treated or managed
- who to contact if you have ongoing or new side effects.

Tiredness

Recovering from lymphoma treatment can take time. It is not unusual to feel tired for many months after treatment is over. Occasionally, tiredness may last for 1 or 2 years, depending on the type of treatment you had.

Physical activity can help improve your energy levels and help reduce tiredness. Short walks are a good way to start. Being active may also help you sleep better and can improve anxiety and depression.

Sometimes tiredness is a sign of:

- depression
- sleep problems
- pain
- changes in the thyroid gland.

These are problems that can be treated. If tiredness is not going away, talk to your lymphoma team or GP.

Emotional effects

Some people find they still have strong emotions months or even years after lymphoma treatment. It can take time to adjust to and deal with these feelings. If these feelings do not improve or you are finding them hard to cope with, talk to your lymphoma team or GP. They may be able to refer you to a counsellor or psychologist, or prescribe medicines to help.

Immune system effects

Your immune system protects you against infection. Lymphoma and lymphoma treatments can affect how your immune system works. Your body may be less able to fight infections.

It is important to tell your lymphoma team or GP if you have signs of an infection. Having it treated straight away can prevent serious complications.

Vaccines

Your cancer doctor may advise you to have vaccinations for flu, pneumonia and coronavirus (covid). If you are over 50, they may also suggest vaccination for shingles. These reduce your risk of serious illness from these infections. Most people can have these vaccines, including people with weak immune systems. Ask your doctor for advice about when you should have them.

Some vaccines contain a very weak version of the illness they will protect you against. They are called live vaccines. You should not have live vaccines for 6 to 24 months after lymphoma treatment, or until your immune system has recovered. This is because the vaccine may make you unwell.

Ask your cancer doctor or specialist nurse for advice before having vaccinations. They can explain what vaccines are right for you and when it is best to have these.

Preventing pneumonia

Pneumonia is a severe type of chest infection. After some types of lymphoma treatment, you may have a higher risk of a type of pneumonia called PJP or PCP.

If you are at risk, your cancer doctor will give you antibiotic tablets to help prevent infection. You may need to take them for several months until your immune system is stronger.

Preventing shingles

Shingles is a viral infection that can cause a painful rash. It is caused by the reactivation of the virus that causes chicken pox. This is more likely to happen when the immune system is weak.

If you are at risk of shingles, your cancer doctor will give you antiviral tablets called aciclovir to help prevent it. You may need to take them for several months until your immune system is stronger.

Peripheral neuropathy

Some drugs used to treat lymphoma can affect the nerves, causing numb, tingling or painful hands or feet. This is called peripheral neuropathy. Tell your cancer doctor or nurse if you notice any new symptoms or have symptoms that are getting worse. If you do have nerve damage, it is better if it is diagnosed as early as possible.

Most people find that their symptoms gradually improve with time as the nerves slowly recover. This may take several months or more. For some people, nerve damage will be permanent. In this situation, however, many people find that their symptoms become less troublesome over time, as they adapt and find ways of coping with the changes.

We have more information you may find useful on our website. Visit macmillan.org.uk/peripheral-neuropathy

“ I lost my hair and a bit of weight. I had a little bit of tingling in my fingers which hasn't totally cleared up but isn't a major problem. Now I just have to go in every 2 months for maintenance treatment. ”

Alan, diagnosed with non-Hodgkin lymphoma

Early menopause

Menopause usually begins between the ages of 45 and 55. But after treatment for lymphoma, you may have an earlier menopause. Your cancer doctor or specialist nurse can tell you if this is likely.

Symptoms can include:

- hot flushes
- night sweats
- joint pain
- reduced sex drive
- vaginal dryness
- disturbed sleep
- mood swings
- anxiety.

If you have any of these symptoms, tell your doctor or nurse. You may have blood tests to check for signs of the menopause. Hormone replacement therapy (HRT) can help reduce menopausal symptoms. Your doctor will explain the possible benefits and risks of HRT.

We have more information on our website. Visit [macmillan.org.uk/menopausal-symptoms](https://www.macmillan.org.uk/menopausal-symptoms)

Thyroid changes

The thyroid is a small gland in the front of your neck. It makes hormones that help to control and influence the way your body works.

Some people who have radiotherapy to the neck develop changes

in their thyroid gland a few years after treatment. The thyroid stops producing enough hormones. This is called an underactive thyroid or hypothyroidism. It can cause symptoms such as weight gain, tiredness and constipation.

Your cancer doctor will explain if your treatment could cause thyroid changes. You will have a blood test once a year to check how your thyroid is working. You may need daily tablets if your thyroid is underactive.

Effects on the heart

Some lymphoma treatments may cause heart problems later in life. This includes some types of chemotherapy and, rarely, radiotherapy to the chest area.

Your cancer doctor will explain if there is a risk your treatment may cause heart problems. You may have heart tests before and during chemotherapy to check how well your heart is working. After treatment, you may have regular heart tests to check for signs of heart changes.

There are things you can do to improve your heart health and reduce your risk of heart problems after lymphoma treatment. These include being active, not smoking and a healthy diet.

We have more information in our booklet [Heart health and cancer treatment](#).

Second cancer

Chemotherapy and radiotherapy can lead to a slightly increased risk of developing a second type of cancer later in life. This means a different cancer to lymphoma.

Treatments are designed to limit these risks as much as possible.

If your treatment involved radiotherapy to the chest area, your cancer doctor may give you information about the following:

- Signs and symptoms of skin cancer. If you notice any changes to the skin in the treated area, get them checked. Skin cancer can be treated very effectively at an early stage.
- Breast cancer symptoms and screening. Women, and other people assigned female at birth, who are under the age of 30 should have regular screening for breast cancer. Screening usually involves a physical check-up and an x-ray (mammogram) or MRI scan of each breast. Your doctor or nurse will explain what to expect.

If you have HIV, you may have an increased risk of anal cancer after lymphoma treatment. Your cancer doctor can give you information about signs and symptoms of anal cancer and possible check-ups.

Effects on the lungs

We have more information about lymphoma and HIV on our website. Visit [Visit to treat lymphoma](#) if you sometimes cause changes to the lungs. Tell your cancer doctor, nurse or GP if you develop:



- breathlessness
- a cough that does not go away
- wheezing.

You should also tell them if any existing breathing problems get worse.

You may have tests to check your lungs. If you smoke, stopping will improve your lung health and reduce your risk of breathing problems.

Bleomycin

The drug bleomycin can cause permanent damage to the lungs. This is more likely if:

- you smoke
- you also had radiotherapy to the chest area
- you are over 60
- you have other lung problems.

After treatment with bleomycin, breathing in high doses of oxygen can cause lung problems. If you need to have a general anaesthetic or oxygen therapy for any reason, always tell the doctor that you have had bleomycin. Some people choose to wear a medical alert identifier.

You should not scuba dive for a year after treatment with bleomycin. After this, you should have tests to check whether scuba diving is safe for you. Your cancer doctor can give you more information about this.

Irradiated blood products

Irradiated blood products are treated with x-rays to get rid of white blood cells called lymphocytes.

Rarely, these lymphocytes can cause a serious reaction in people who have had certain treatments for non-Hodgkin lymphoma.

Your cancer doctor will tell you if you should have irradiated blood products and for how long. This includes if you need blood products called red cells, platelets or granulocytes.

If you need a blood transfusion after the following treatments, you should only have irradiated blood products:

- some types of chemotherapy or targeted therapy drugs
- a stem cell transplant
- CAR T-cell therapy.

This is still important after your lymphoma treatment ends and for the rest of your life, even if the lymphoma is in remission.

Your cancer doctor will give you a card that explains this. You should show the card if you ever need treatment at hospital or need a blood transfusion. Some people also wear a medical ID bracelet or chain that carries this information. This is useful if you need emergency treatment and are not able to explain your medical history. Your pharmacist can give you more information.

Wellbeing and recovery

Making lifestyle changes after treatment can help with your recovery and your overall health. These changes can also help your body recover, improve your sense of wellbeing, and lower your risk of getting other illnesses.

It is important to remember that although your treatment has finished, you may still need support from other people. This might come from family or friends, or from a member of your healthcare team.

Stop smoking

If you smoke, stopping is one of the healthiest decisions you can make. Smoking increases your risk of bone thinning (osteoporosis) and is a major risk factor for smoking-related cancers and heart disease.

If you want to stop smoking, it is never too late to stop. Ask your GP for advice, or contact a [stop-smoking service](#).

Eat well and keep to a healthy weight

We have more information about stopping smoking  There are [websites](#) [visits](#) [your weight might change during](#) lymphoma treatment. When you feel ready, you can check with your GP if your weight is within the normal range for your height.

Eating well and keeping to a healthy weight reduces the risk of heart and lung problems, diabetes and developing some other cancers. Try to:

- eat a balanced diet with lots of fruit and vegetables
- eat less saturated fat and sugar.

We have more information in our booklet [Healthy eating and cancer](#).

Alcohol

Alcohol is high in calories and can cause weight gain. It is also linked with an increased risk of some cancers. Following the recommended drinking guidelines is good for your health and weight. NHS guidelines suggest that you should:

- not regularly drink more than 14 units of alcohol in a week
- spread the alcohol units you drink in a week over 3 or more days
- try to have several alcohol-free days every week.

1 unit of alcohol is:

- half a pint of ordinary strength beer, lager or cider
- 1 small glass (125ml) of wine
- 1 single measure (25ml) of spirits.

There is more information about alcohol and drinking guidelines at drinkaware.co.uk

Be physically active

Being active after lymphoma treatment has lots of benefits. It can:

- reduce your risk of heart disease, stroke and diabetes
- help you manage tiredness
- help you keep to a health weight
- keep your bones strong
- reduce stress and anxiety.

If you feel worried about starting physical activity, it can help to get advice. Talk to your cancer doctor, nurse or GP before you start exercising. Start slowly and increase your activity over time. Our booklet [Physical activity and cancer](#) has more

information that you may find useful.

Take care in the sun

Radiotherapy and some drugs used to treat lymphoma can make your skin sensitive to sunlight. This means your skin is more likely to burn in the sun and may increase your risk of developing a skin cancer.

It is important to take care in the sun. Protect your skin by covering up. Be extra careful to always cover areas that have been treated with radiotherapy. If you are out in the sun, you should also wear a suncream with a sun protection factor (SPF) of at least 30.

Find ways to relax

Finding ways to relax can help you cope with stress and anxiety. Try to build things into your routine that help you to relax. These may include going for walks, listening to music or spending time with friends.

You may want to learn specific techniques to help you relax, such as:

- deep breathing
- muscle relaxation exercises
- yoga
- meditation.

Hospitals or support groups sometimes offer classes in relaxation techniques.

Consider complementary therapies

Some people use complementary therapies to help them feel better. Complementary therapies include massage and relaxation techniques. Many hospitals and hospices offer these therapies.

If you would like to try a complementary therapy, check with your cancer doctor, nurse or GP before starting. This is important because some complementary therapies should be avoided during cancer treatments and for a short time afterwards. We have more information in our booklet [Cancer and complementary therapies](#).



Your feelings and relationships

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“When you are diagnosed with cancer, there are so many thoughts, fears, worries and uncertainties swirling around your head. You have to find a way to cope with it. My method was to write a detailed blog about my story. ”

Christina, diagnosed with
non-Hodgkin lymphoma

Your feelings

It is common to have many different feelings when you are told you have cancer. You may feel shocked, scared, depressed, guilty or angry. This can be difficult to cope with. Partners, family and friends may also have some of the same feelings.

We have more information about emotions on our website and in our booklet [How are you feeling? The emotional effects of cancer](#).

Your healthcare team will usually give you support. But you may feel you need more help. Talk to your cancer doctor, GP or specialist nurse. They can refer you to a specialist doctor, psychologist or counsellor who can help.

You can also call the Macmillan Support Line on [0808 808 00 00](tel:08088080000) and talk to one of our cancer support specialists.

Talking to family, friends or other people affected by cancer may help. For more information or for help finding local support groups, visit macmillan.org.uk/supportgroups Or talk to other people on our Online Community at macmillan.org.uk/community

There is more information on [pages 136 to 139](#) about other ways we can help you.

Relationships

Cancer and its treatment are stressful and may affect your relationships. Your experience of cancer may strengthen your relationships with people close to you. Or it may put a strain on relationships. Any problems usually improve over time, especially if you talk openly with each other.

We have more information about relationships on our website and in our booklets [Talking about cancer](#) and [Cancer and relationships: support for partners, families and friends](#).

If you are a family member or friend

If you know someone with cancer, you might find it hard to talk about the cancer or your feelings. You can support the person with cancer by listening and talking with them.

“ So many people keep their feelings bottled up for the sake of their family. But it’s not good. we all need to talk, vent and ask for support if we need it. ”

Christina, diagnosed with non-Hodgkin lymphoma

We have more information about supporting someone on our website and in our booklet [Talking with someone who has cancer](#).

If you are looking after a family member or friend with cancer, you may be a carer. We have more information and practical tips for carers on our website and in our booklet [Looking after someone with cancer](#).

Talking to children and teenagers

Deciding what to tell children or teenagers about cancer is difficult. It can be hard to know what to tell them, and you may be worried about upsetting them. It may be best to start by giving them small amounts of information, and then tell them more when they are ready. Use simple, straightforward language to explain what is happening. You can encourage them to talk to someone they trust, who can support them. They may also find support online.

We have more information in our booklet [Talking to children and teenagers when an adult has cancer](#).



Money and work

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Help with money and benefits

When you are affected by cancer, you may need help with extra costs. Or you may need support with money if you have to stop working. We have more information online about [Statutory Sick Pay and benefits](#) you may be entitled to.

We also have [information for carers](#).

Benefits are payments from the government to people who need help with money. You can find out more about benefits and apply for them online. Go to:

- [gov.uk](#) if you live in England or Wales
- [socialsecurity.gov.scot](#) if you live in Scotland
- [nidirect.gov.uk](#) if you live in Northern Ireland.

The benefits system and other types of financial support can be hard to understand. Macmillan has expert money advisers who can talk to you about your money worries, provide information about benefits and recommend other useful organisations that can help. You can speak to them by calling the Macmillan Support Line. Please note the opening times may vary by service.

You can also get information about benefits and other types of financial help from [Citizens Advice](#) if you live in England, Scotland or Wales, or [Advice NI](#) if you live in Northern Ireland.

Our booklet [Help with the cost of cancer](#) has lots more information.

Grants

You may be able to get some financial help from other charities, for example one-off grants. For further information, contact the Macmillan Support Line.

Insurance

If you have, or have had, cancer, you may find it hard to get certain types of insurance. We have [information about insurance](#) on our website.

We have more information about travel insurance in our booklet [Travel and cancer](#). Our [Online Community forum on Travel insurance](#) may also be helpful.

You can order our booklets and leaflets for free.
Visit orders.macmillan.org.uk or call [0808 808 00 00](tel:0808 808 00 00).



Work

You may not know how cancer will affect your work, now or in the future.

It is a good idea to talk to your manager or human resources (HR) department soon after you are diagnosed. This will help them to support you better.

Some people stop working during cancer treatment and for a while after, until they feel ready to go back. Others carry on working, sometimes with reduced hours or other changes to their job.

Your cancer doctor, GP or specialist nurse can help you decide whether you should stop working, and when and if you should go back to work.

Our booklets [Work and cancer](#), [Working while caring for someone with cancer](#) and [Self-employment and cancer](#) have more information that may be helpful. You can also find out more about your employment rights in our booklet [Your rights at work when you are affected by cancer](#).

There is also lots more information online at macmillan.org.uk/work

“ It's a case of getting back on my feet, finding out who I am again and getting in touch with life once again. Then hopefully phasing slowly back into work, creating the new normal and the new me. ”

Claire, diagnosed with non-Hodgkin lymphoma



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About our information

We provide expert, up-to-date information about cancer. And all our information is free for everyone.

Our information has the PIF Tick quality mark for trusted health information. This means our information has been through a professional and strong production process.

Order what you need

You may want to order more booklets or leaflets like this one. Visit orders.macmillan.org.uk or call us on [0808 808 00 00](tel:08088080000).

We have booklets about different cancer types, treatments and side effects. We also have information about work, financial issues, diet, life after cancer treatment and information for carers, family and friends.

Online information

All our information is also available online at macmillan.org.uk/information-and-support You can also find videos featuring stories from people affected by cancer, and information from health and social care professionals.

Other formats

We also provide information in different languages and formats, including:

- audiobooks
- Braille
- British Sign Language
- easy read booklets
- interactive PDFs
- large print
- translations.

Find out more at macmillan.org.uk/otherformats

If you would like us to produce information in a different format for you, email us at informationproductionteam@macmillan.org.uk or call us on [0808 808 00 00](tel:08088080000).

The language we use

We want everyone affected by cancer to feel our information is written for them.

We want our information to be as clear as possible. To do this, we try to:

- use plain English
- explain medical words
- use short sentences
- use illustrations to explain text
- structure the information clearly
- make sure important points are clear.

We use gender-inclusive language and talk to our readers as 'you' so that everyone feels included. Where clinically necessary we use the terms 'men' and 'women' or 'male' and 'female'. For example, we do so when talking about parts of the body or mentioning statistics or research about who is affected.

To find out more about how we produce our information, visit [macmillan.org.uk/ourinfo](https://www.macmillan.org.uk/ourinfo)



Other ways we can help you

At Macmillan, we know how a cancer diagnosis can affect everything, and we are here to support you.

Talk to us

If you or someone you know is affected by cancer, talking about how you feel and sharing your concerns can really help.

Macmillan Support Line

Our support line is made up of specialist teams who can help you with:

- emotional and practical support if you or someone you know has been diagnosed with cancer
- clinical information from our specialist nurses about things like diagnosis and treatments
- welfare rights advice, for information about benefits and general money worries.

To contact any of our teams, call the Macmillan Support Line for free on [0808 808 00 00](tel:08088080000). Or visit macmillan.org.uk/support-line to chat online and find the options and opening times.

Our trained cancer information advisers can listen and signpost you to further support.

Our cancer information nurse specialists can talk you through information about your diagnosis and treatment. They can help you understand what to expect from your diagnosis and provide information to help you manage symptoms and side effects.

If you are deaf or hard of hearing, call us using Relay UK on 18001 **0808 808 00 00**, or use the Relay UK app.

You can also email us, or use the Macmillan Chat Service via our website. You can use the chat service to ask our advisers about anything that is worrying you. Tell them what you would like to talk about so they can direct your chat to the right person. Click on the 'Chat to us' button, which appears on pages across the website. Or go to macmillan.org.uk/talktous

If you would like to talk to someone in a language other than English, we also offer an interpreter service for our Macmillan Support Line. Call [0808 808 00 00](tel:08088080000) and say, in English, the language you want to use. Or send us a web chat message saying you would like an interpreter. Let us know the language you need and we'll arrange for an interpreter to contact you.

Macmillan Information and Support Centres

Our Information and Support Centres are based in hospitals, libraries and mobile centres. Visit one to get the information you need and speak with someone face to face. If you would like a private chat, most centres have a room where you can speak with someone confidentially.

Find your nearest centre at macmillan.org.uk/informationcentres or call us on [0808 808 00 00](tel:08088080000).

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you have been affected in this way, we can help. Please note the opening times may vary by service.

Financial advice

Our expert money advisers on the Macmillan Support Line can help you deal with money worries and recommend other useful organisations that can help.

Help accessing benefits

You can speak to our money advisers for more information. Call us free on [0808 808 00 00](tel:0808 808 00 00). Visit macmillan.org.uk/financialsupport for more information about benefits.

Help with work and cancer

Whether you are an employee, a carer, an employer or are self-employed, we can provide information to help you manage cancer at work. Visit macmillan.org.uk/work

Talk to others

No one knows more about the impact cancer can have on your life than those who have been through it themselves. That is why we help bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, family member or friend, we can help you find support in your local area, so you can speak face to face with people who understand. Find out about support groups in your area by calling us or by visiting macmillan.org.uk/selfhelpandsupport

Online Community

Thousands of people use our Online Community to make friends, blog about their experiences and join groups to meet other people going through the same things. You can access it any time of day or night. Share your experiences, ask questions, or just read through people's posts at macmillan.org.uk/community

You can also use our Ask an Expert service on the Online Community. You can ask a money adviser, cancer information nurse or an information and support adviser any questions you have.

Macmillan healthcare professionals

Our nurses, doctors and other health and social care professionals give expert care and support to individuals and their families. Call us or ask your GP, consultant, district nurse or hospital ward sister if there are any Macmillan professionals near you.

Other useful organisations

There are lots of other organisations that can give you information or support. Details correct at time of printing.

Lymphoma support organisations

Anthony Nolan

Tel **0303 303 0303**

www.anthonynolan.org

Information and support for people with blood cancer or a blood disorder who need a stem cell transplant. Runs a stem cell register of potential donors. Offers telephone support, grants, online community and support days.

Blood Cancer UK

Tel **0808 2080 888**

www.bloodcancer.org.uk

Information and support for people with leukaemia, lymphoma, myeloma and all types of blood cancer. Offers information and support online, by phone, by email, and through support groups and buddy systems. Also has a clinical trials support service.

Lymphoma Action

Tel **0808 808 5555**

www.lymphoma-action.org.uk

Information and support for anyone affected by lymphoma. Offers a helpline, live chat, email support, newsletter and network of support groups. Also has a clinical trials information service called Lymphoma TrialsLink.

General cancer support organisations

Black Women Rising

www.blackwomenrisinguk.org

Aims to educate, inspire and bring opportunities for women from the BAME community. Shares stories and supports Black cancer patients and survivors through treatment and remission.

Cancer Black Care

Tel **0208 961 4151**

www.cancerblackcare.org.uk

Offers UK-wide information and support for people from Black and minority ethnic communities who have cancer. Also supports their friends, carers and families.

Cancer Focus Northern Ireland

Helpline **0800 783 3339**

www.cancerfocusni.org

Offers a variety of services to people affected by cancer in Northern Ireland.

Cancer Research UK

Helpline **0808 800 4040**

www.cancerresearchuk.org

A UK-wide organisation that has patient information on all types of cancer. Also has a clinical trials database.

Macmillan Cancer Voices

www.macmillan.org.uk/cancervoices

A UK-wide network that enables people who have or have had cancer, and those close to them such as family and carers, to speak out about their experience of cancer.

Maggie's

Tel **0300 123 1801**

www.maggies.org

Has a network of centres in many locations throughout the UK. Provides free information about cancer and financial benefits. Also offers emotional and social support to people with cancer, their family, and friends.

Penny Brohn UK

Helpline **0303 3000 118**

www.pennybrohn.org.uk

Offers physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Respire

www.respire.org.uk

Aims to improve the patient experience by helping patients to prepare for radiotherapy.

Tenovus

Helpline **0808 808 1010**

www.tenovuscancercare.org.uk

Aims to help everyone in the UK get equal access to cancer treatment and support. Funds research and provides support such as mobile cancer support units, a free helpline, benefits advice and an online 'Ask the nurse' service.

General health information

Health and Social Care in Northern Ireland

www.northerntrust.hscni.net

Provides information about health and social care services in Northern Ireland.

NHS.UK

www.nhs.uk

The UK's biggest health information website. Has service information for England.

NHS 111 Wales

111.wales.nhs.uk

NHS health information site for Wales.

NHS Inform

Helpline **0800 22 44 88**

www.nhsinform.scot

NHS health information site for Scotland.

Patient UK

www.patient.info

Provides people in the UK with information about health and disease. Includes evidence-based information leaflets on a wide variety of medical and health topics. Also reviews and links to many other relevant websites.

Stop smoking services

England

Call the National Smokefree Helpline on **0300 123 1044**.

Or visit the NHS Better Health website to find out more.

Visit nhs.uk/better-health/quit-smoking

Scotland

Call Quit Your Way Scotland on **0800 84 84 84**. Or chat online to an adviser.

Visit www.nhsinform.scot/care-support-and-rights/nhs-services/helplines/quit-your-way-scotland

Wales

Call Help Me Quit on **0800 085 2219**. Or you can complete a 'Request a Callback' form on the website.

Visit www.helpmequit.wales

Northern Ireland

Stop Smoking Northern Ireland has information and support to help you stop. Visit www.stopsmokingni.info

Counselling

British Association for Counselling and Psychotherapy (BACP)

Tel **0145 588 3300**

www.bacp.co.uk

Promotes awareness of counselling and signposts people to appropriate services across the UK. You can also search for a qualified counsellor on the 'How to find a therapist' page.

UK Council for Psychotherapy (UKCP)

Tel **0207 014 9955**

www.psychotherapy.org.uk

Holds the national register of psychotherapists and psychotherapeutic counsellors, listing practitioners who meet exacting standards and training requirements.

Emotional and mental health support

Mind

Helpline **0300 123 3393**

www.mind.org.uk

Provides information, advice and support to anyone with a mental health problem through its helpline and website.

Samaritans

Helpline **116 123**

Email **jo@samaritans.org**

www.samaritans.org

Provides confidential and non-judgemental emotional support, 24 hours a day, 365 days a year, for people experiencing feelings of distress or despair.

Financial support or legal advice and information

Advice NI

Helpline **0800 915 4604**

www.adviceni.net

Provides advice on a variety of issues including financial, legal, housing and employment issues.

Citizens Advice

Provides advice on a variety of issues including financial, legal, housing and employment issues. Use its online webchat or find details for your local office by contacting:

England

Helpline **0800 144 8848**

www.citizensadvice.org.uk

Scotland

Helpline **0800 028 1456**

www.cas.org.uk

Wales

Helpline **0800 702 2020**

www.citizensadvice.org.uk/wales

GOV.UK

www.gov.uk

Has information about social security benefits and public services in England, Scotland and Wales.

GOV.UK Carer's Allowance Unit

Tel **0800 731 0297**

Textphone **0800 731 0317**

www.gov.uk/carers-allowance

Manages state benefits in England, Scotland and Wales. You can apply for benefits and find information online or through its helplines.

GOV.UK Civil Legal Advice

Helpline **0345 345 4345**

Textphone **0345 609 6677**

www.gov.uk/civil-legal-advice

Has a list of legal advice centres in England and Wales and solicitors that take legal aid cases. Offers a free translation service if English is not your first language.

Law Centres Network

www.lawcentres.org.uk

Local law centres provide advice and legal assistance. They specialise in social welfare issues including disability and discrimination.

Local councils (England, Scotland and Wales)

Your local council may have a welfare rights unit that can help you with benefits. You can also contact your local council to claim Housing Benefit and Council Tax Reduction, education benefits, and for help from social services (the Social Work department in Scotland). You should be able to find your local council's contact details online by visiting:

England

www.gov.uk/find-local-council

Scotland

www.cosla.gov.uk/councils

Wales

www.gov.wales/find-your-local-authority

Macmillan Benefits Advice Service (Northern Ireland)

Tel **0300 1233 233**

Money Advice Scotland

www.moneyadvicescotland.org.uk

Use the website to find qualified financial advisers in Scotland.

NI Direct

www.nidirect.gov.uk

Has information about benefits and public services in Northern Ireland.

NI Direct Disability and Carers Service

Tel **0800 587 0912**

Textphone **0800 012 1574**

www.nidirect.gov.uk/contacts/disability-and-carers-service

The service for Disability Living Allowance, Attendance Allowance, Carer's Allowance and Carer's Credit in Northern Ireland. You can apply for these benefits and find information online or through its helplines.

NI Direct Jobs and Benefits Office

Helpline **0800 022 4250**

Textphone **0800 587 1297**

www.nidirect.gov.uk/money-tax-and-benefits

The office that provides information and advice about disability benefits and carers' benefits in Northern Ireland.

NI Direct Make the Call

Make the Call helpline **0800 232 1271**

Text ADVICE to **0798 440 5248**

www.nidirect.gov.uk/make-the-call

Service to check if you or someone you care for may be entitled to extra benefits.

Northern Ireland Housing Executive

Tel **0344 892 0902**

www.nihe.gov.uk

Offers help to people living in socially rented, privately rented and owner-occupied accommodation.

StepChange Debt Charity

Tel **0800 138 1111**

www.stepchange.org

Provides free debt advice through phone, email, the website and online through live chats with advisers.

Unbiased.co.uk

www.unbiased.co.uk

You can search the website for qualified advisers in the UK who can give expert advice about finances, mortgages, accounting or legal issues.

Support for young people

Teenage Cancer Trust

Tel **0207 612 0370**

www.teenagecancertrust.org

A UK-wide charity devoted to improving the lives of teenagers and young adults with cancer. Runs a support network for young people with cancer, their friends and families.

Support for older people

Age UK

Helpline **0800 678 1602**

www.ageuk.org.uk

Provides information and advice for older people across the UK via the website and advice line. Also publishes impartial and informative fact sheets and advice guides.

LGBT-specific support

LGBT Foundation

Tel **0345 330 3030**

www.lgbt.foundation

Provides a range of services to the LGBT community, including a helpline, email advice and counselling. The website has information on various topics including sexual health, relationships, mental health, community groups and events.

OUTpatients

www.outpatients.org.uk

Supports and advocates for LGBTIQ+ cancer patients in the UK, inclusive of all genders or types of cancer. Also produces information, and runs a peer support group with Maggie's Barts.

Cancer registries

The cancer registry is a national database that collects information on cancer diagnoses and treatment. This information helps the NHS and other organisations plan and improve health and care services. There is a cancer registry in each country in the UK. They are run by the following organisations:

England – National Disease Registration Service (NDRS)

www.digital.nhs.uk/ndrs/patients

Scotland – Public Health Scotland (PHS)

www.publichealthscotland.scot/our-areas-of-work/conditions-and-diseases/cancer/scottish-cancer-registry-and-intelligence-service-scris/overview

Wales – Welsh Cancer Intelligence and Surveillance Unit (WCISU)

Tel **0292 010 4278**

www.phw.nhs.wales/wcisu

Northern Ireland – Northern Ireland Cancer Registry (NICR)

Tel **0289 097 6028**

www.qub.ac.uk/research-centres/nicr/AboutUs/Registry

Disclaimer

We make every effort to ensure that the information we provide is accurate and up to date but it should not be relied upon as a substitute for specialist professional advice tailored to your situation. So far as is permitted by law, Macmillan does not accept liability in relation to the use of any information contained in this publication, or third-party information or websites included or referred to in it. Some photos are of models.

Thanks

This booklet has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been approved by Senior Medical Editor, Professor Chris Fox, Haematologist.

With thanks to: Charlotte Bloodworth, Advanced Nurse Practitioner in Haematology; Professor Andrew Davies, Professor of Haematological Oncology; Dr Maggie Harris, Clinical Oncologist; Dr Robert Lown, Consultant Haematologist; Dr NJ Morley, Consultant Haematologist; Nicola Shepherd, Clinical Nurse Specialist; Dr P Sriskandarajah, Consultant Haematologist; and Karen Stanley, Advanced Nurse Practitioner.

Thanks also to the people affected by cancer who reviewed this edition, and those who shared their stories.

We welcome feedback on our information. If you have any, please contact informationproductionteam@macmillan.org.uk

Sources

Below is a sample of the sources used in our non-Hodgkin lymphoma information. If you would like more information about the sources we use, please contact us at informationproductionteam@macmillan.org.uk

Fox CP, Chaganti S, McIlroy G, et al. The management of newly diagnosed large B-cell lymphoma: A British Society for Haematology Guideline. *Br J Haematol*. 2024; 204(4):1178–92. [accessed April 2024].

McNamara C, Montoto S, et al. The investigation and management of follicular lymphoma. *Br J Haematol*, 2020; 191, 363–381. [accessed April 2024].

National Institute for Health and Care Excellence. Non-Hodgkin's lymphoma: diagnosis and management. NICE guideline [NG52]. Published: 20 July 2016. Last update Oct 2021. Available from <https://www.nice.org.uk/guidance/ng52/> [accessed April 2024].

Can you do something to help?

We hope this booklet has been useful to you. It is just one of our many publications that are available free to anyone affected by cancer.

They are produced by our cancer information specialists who, along with our nurses, money advisers, campaigners and volunteers, are part of the Macmillan team. When people are facing the toughest fight of their lives, we are here to support them every step of the way.

We want to make sure no one has to go through cancer alone, so we need more people to help us. When the time is right for you, here are some ways in which you can become a part of our team.

5 ways you can help someone with cancer

1. Share your cancer experience

Support people living with cancer by telling your story, online, in the media or face to face.

2. Campaign for change

We need your help to make sure everyone gets the right support. Take an action, big or small, for better cancer care.

3. Help someone in your community

A lift to an appointment. Help with the shopping. Or just a cup of tea and a chat. Could you lend a hand?

4. Raise money

Whatever you like doing you can raise money to help. Take part in one of our events or create your own.

5. Give money

Big or small, every penny helps. To make a one-off donation see over.

Please fill in your personal details

Mr/Mrs/Miss/Other

Name

Surname

Address

Postcode

Phone

Email

Please accept my gift of £
(Please delete as appropriate)

I enclose a cheque / postal order /
Charity Voucher made payable to
Macmillan Cancer Support

OR debit my:

Visa / MasterCard / CAF Charity
Card / Switch / Maestro

Card number

Valid from

Expiry date

Issue no

Security number

Signature

Date / /

Do not let the taxman keep your money

Do you pay tax? If so, your gift will be worth 25% more to us – at no extra cost to you. All you have to do is tick the box below, and the tax office will give 25p for every pound you give.

I am a UK tax payer and I would like Macmillan Cancer Support to treat all donations I make or have made to Macmillan Cancer Support in the last 4 years as Gift Aid donations, until I notify you otherwise.

I understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference. I understand Macmillan Cancer Support will reclaim 25p of tax on every £1 that I give.

Macmillan Cancer Support and our trading companies would like to hold your details in order to contact you about our fundraising, campaigning and services for people affected by cancer. If you would prefer us not to use your details in this way please tick this box.

In order to carry out our work we may need to pass your details to agents or partners who act on our behalf.

If you would rather donate online go to macmillan.org.uk/donate



Please cut out this form and return it in an envelope (no stamp required) to: Supporter Donations, Freepost RUCY-XGCA-XTHU, Macmillan Cancer Support, PO Box 791, York House, York YO1 0NJ

This booklet is about a type of blood cancer called non-Hodgkin lymphoma (NHL). It is for anyone who has been diagnosed with NHL. There is also information for carers, family members and friends.

The booklet explains treatments for NHL. It also has information about feelings, practical issues and money.

At Macmillan we know cancer can disrupt your whole life. We'll do whatever it takes to help everyone living with cancer in the UK get the support they need right now, and transform cancer care for the future.

For information, support or just someone to talk to, call [0808 808 00 00](tel:08088080000) or visit macmillan.org.uk

Would you prefer to speak to us in another language? Interpreters are available. Please tell us in English the language you would like to use. Are you deaf or hard of hearing? Call us using Relay UK on 18001 0808 808 00 00, or use the Relay UK app.

Need information in different languages or formats? We produce information in audio, interactive PDFs, easy read, Braille, large print and translations. To order these, visit macmillan.org.uk/otherformats or call our support line.

The logo consists of a blue rounded rectangle containing the text 'Trusted Information Creator' in black. To the right of the text is a large green checkmark.

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Information
Creator**

Patient Information Forum