

MRI scan

A magnetic resonance imaging (MRI) scan uses a strong magnet and radio waves to make detailed cross-sectional images of the inside of your body. We have separate information about [ultrasound scans](#), [X-ray scans](#), [being referred for tests and scans](#) and [waiting for test results](#).

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

What is an MRI scan?

An MRI scan uses a magnetic field to build up a detailed picture of the inside of your body.

Different parts of your body are made up of different amounts of water. An MRI machine magnetises the water in your body. It sends radio waves that bounce off the magnetised water. A detector records these radio waves, which can be used to build a detailed picture of the inside of your body.



Figure: MRI scanner © The Royal Marsden NHS Foundation Trust

When is an MRI scan used for people who have lymphoma?

You might have an MRI scan if your medical team think you could have **lymphoma in your central nervous system** (brain and spinal cord) or your head and neck or bones.

You might have an MRI instead of a **computerised tomography** (CT), **positron emission tomography** (PET) or **PET/CT** scan if:

- you have an allergy to the **contrast dye agents** that are used in CT and PET/CT scans
- you are **pregnant**.

Preparing for an MRI scan

You'll be given information in advance about how to prepare for your scan, including about:

- Medication – your medical team should tell you if it's safe to have any of your usual medication before your scan. If you are taking medication for **diabetes**, check with your hospital team. They might advise you not to take tablets or insulin for a number of hours before the scan.
- Food and drink – you can usually eat and drink as normal on the day of your scan. Your medical team will tell you if this is not the case.

Before an MRI scan, you will be asked to take off any metal you're wearing, for example jewellery, a belt, watch, or underwired bra. If you wear glasses, you might need to remove these too.

The staff in the scanning department ask you whether you are, or could be pregnant.

You might be given a **contrast agent**.

It's a good idea to empty your bladder before you have the scan because you'll **need to lie still** for a long time.

Contrast agents

A contrast agent is a type of dye. It helps to show internal structures (blood vessels, organs and tissues) clearly. Most commonly, MRI scans use either gadolinium (by injection) or barium sulfate (as a drink), depending on which part of your body is being scanned.

Are there any side effects of having a contrast agent?

Side effects from contrast agents are uncommon. The contrast agent might make you feel hot all over, but this usually only lasts for a few minutes. Sometimes people feel sick for a few minutes after having the contrast agent.

If you have a contrast agent by injection, it can sometimes sting and you might feel warm or cold where the contrast is injected. Depending on the type of contrast agent, you might experience:

- warmth travelling down your arms
- a strange taste in your mouth
- feeling as though you need to wee
- feeling sick or dizzy.

All of these usually pass very quickly.

Allergic reactions

There is a small risk of having an allergic reaction to a contrast agent. If this happens, it could cause itchy skin, swollen lumps and, in severe cases, difficulty breathing. Staff monitor you carefully and are trained to treat any allergic reactions promptly. Before you have the contrast agent, they will check in your medical notes and by asking you whether you have:

- certain conditions
- particular allergies
- had an allergic reaction to a contrast agent in the past.

These factors could increase your risk of developing an allergic reaction to the contrast agent; you might be given a steroid medication before you have it, to lower this risk.

Having an MRI scan

You usually have an MRI scan as an outpatient, unless you are already staying in hospital. Not all hospitals have an MRI machine so you might have to travel to a larger centre for your scan.

An MRI scan usually takes around an hour but your appointment might be longer if you need to have a **contrast agent**.

An MRI scanner is a large cylinder. It looks a bit like a tunnel or tube and it's open at both ends.

- To have an MRI scan, you lie on a couch that moves slowly into the scanner. Some people find this a little claustrophobic. The staff are used to this and can help support you if you find it difficult.
- The hospital staff leave the room, but they can see you all the time through a window and a video camera. You can speak to one another through a two-way speaker.
- You need to **keep very still** during the scan.
- It can be quite hot and noisy in the scanner. You might feel vibrations and slight movement of the couch during the scan. You should be offered earplugs and might be able to listen to music.

You can go straight home after the procedure. You shouldn't drive if you have had a contrast agent or a **sedative** (drug to relax you).

Frequently asked questions about MRI scans for lymphoma

In this section, we answer some of the questions people often have. Speak to your GP or a member of your medical team if you have questions or concerns specific to your situation.

Who carries out the scan?

A radiographer carries out the scan.

Are MRI scans safe?

MRI scans are safe. They do not use any ionising radiation so you will not be radioactive afterwards.

If you have any metal in your body, however, the strong magnetic fields they use could affect it. This includes hip replacements, pacemakers, implantable defibrillators, cochlear (ear) implants, staples from surgery and metal clips and plates put in after an injury. If you have any metal in your body, it doesn't automatically mean that you can't have an MRI scan; your doctors will find out more about the type of metals in your body and decide on whether it's safe.

The NHS website has more information about [who can and can't have an MRI scan](#).

Can I have a scan if I am pregnant or breastfeeding?

MRI scans are generally considered to be safe during pregnancy. However, doctors often avoid giving an MRI scan during certain stages of pregnancy.

Breastfeeding does not put your baby at risk.

Are scans painful?

Scans aren't painful but they can be uncomfortable if you need to stay still for a long time. If you think you'll find it difficult to lie still for long enough, ask your doctor for advice. They might suggest using support pillows to help keep you as comfortable as possible during the scan, or taking pain relief medication beforehand.

What should I do if I feel anxious about having a scan?

Talk to a member of your medical team if you feel anxious about having a scan. They can answer any questions you have and might suggest ways of coping with your anxiety.

In some cases, the hospital might be able to arrange for you to visit the scanning department. This can be helpful to familiarise yourself with the room and equipment in advance of the day.

If you feel very anxious, you might be able to have an anti-anxiety drug before your scan. If you think an anti-anxiety drug could help you, talk to the staff in the scanning department before the day of your appointment about this possibility. If you have an anti-anxiety drug, you should not drive for the rest of the day so you might need to arrange transport home from your scan.

Can I have a scan if I have diabetes?

If you have diabetes, you might be given specific advice about what to eat on the day of your scan, including about how to take your medication. In some cases, your scan might be arranged for a time of day that plans around your usual blood sugar levels.

Can I take someone with me to my scan?

For most scans, friends or family members can't stay in the room with you during the scan itself. However, they can still go with you to the hospital and wait in a different room.

When will I get the results of the scan?

Your medical team should be able to give you an idea of when to expect your test results. Staff in the scanning department won't be able to give you your scan results while you're at the hospital.

The person doing the scan isn't usually trained to understand what the images mean. Instead, this information needs to be sent to a specialist. The expert uses the scan and the results of all your other tests to help them work out what your scan pictures mean.

For some people, waiting for test results can be a particularly anxious time. Although the wait might feel long, it is important that doctors collect all of the information they need so that they can plan the best treatment for you. If you'd like to talk about how you're feeling, our [helpline team](#) is here to support you.

Will I have scans during my follow-up?

You might have a scan at the end of your treatment to check how well your lymphoma has responded. They are not routinely used as part of **follow-up** as there is no evidence to suggest that follow-up scans for lymphoma change lymphoma treatment or outcomes. Research has shown that if lymphoma comes back (**relapses**), it's usually first noticed by the person with lymphoma.

References

The full list of references for this page is available on our website. Alternatively, email publications@lymphoma-action.org.uk or call 01296 619400 if you would like a copy.

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✓	Evidence-based
✓	Approved by experts
✓	Reviewed by users

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