

Magnetic resonance imaging (MRI)

Patient information sheet

What is an MRI?

Magnetic resonance imaging - also known as an MRI scan - is a technique which produces detailed pictures of your internal organs. It is a type of diagnostic imaging test which produces pictures using a high-powered magnet and radio waves. It is extremely useful in showing defects in the structure of the heart, coronary heart disease and can show how the heart is working.

What happens?

During an MRI scan you will lie down on a table within a large cylinder-shaped magnet. This scanner is open at both ends.

Radio waves are sent through your body which allow the images to be created. You will hear a rhythmic banging noise whilst the pictures are being taken. The banging can be quite loud so we will give you ear protection. You must lie still during the scan and the scan does not hurt.

For an MRI scan of your heart or chest you will be asked to hold your breath while the pictures are being taken. It is likely that you will require an injection of a contrast medium (dye) to help to improve the images but this will be discussed with you at the time of your scan.

For an MRI scan of your heart you will be connected to an electrocardiograph (ECG) machine so the scanner can take images of your heart while it is beating.

Every test takes a different length of time but on average the scan will take about an hour.

Preparation

The MRI scan does not require restrictions on diet or medication unless you are having a stress test (There is a separate leaflet for this test). You will be asked to change into hospital gown. Sportswear such as shorts, leggings, sports bras etc are not suitable for wearing during MRI scans as we need to place the ECG and some sportswear has fibres which may create artefacts on the scan.

You will be asked to remove jewellery/ piercings, however gold wedding rings can stay on. You will be asked to remove any hearing aids and you maybe asked to remove any metallic dentures.

Is MRI dangerous?

MRI does not use ionising radiation and this is one of the main advantages over X-ray imaging. MRI scanning is regarded as a safe technique and is used all over the world.

Can everyone have an MRI scan?

No. MRI scanning cannot be performed on some people. Patients who have 24 hour tapes or certain cerebral aneurysm clips, valves or implants need assessing prior to scanning.

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Large print copies and alternative language versions of this leaflet can be made available on request.

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An MRI screening questionnaire will be sent with your appointment letter. Please call the MRI booking office if you answer yes to any of the first 10 questions. Patients with possible metal fragments in their eyes should inform us before the scan so that we can check you first.

Patients with:

- Artificial joints
- Coronary stents
- Other metallic medical hardware

are safe but please inform us beforehand so we can check your device for MRI suitability. If you have problems with your kidneys it is important that you tell us beforehand in case we need to give you a contrast media injection.

Useful contacts

If you have any questions or would like to know more about this procedure, please telephone the MRI appointments office on 01223 638808, Monday to Friday 10:00 - 15:30, and we will do our best to help.

Alternatively, you could email us at the address below. Email: papworth.mri@nhs.net

We aim to respond to all patient queries within 48 hours.

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If you would like more information with regard to how we process your information, please visit: <https://royalpapworth.nhs.uk/our-hospital/information-we-publish/privacy-request>.

If you would prefer a paper copy, please show this letter to the receptionist and request that they print it for you.

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