



Your child is having a cardiac MRI

The information sheet from Great Ormond Street Hospital (GOSH) explains about cardiac MRI scans, what they involve and what to expect when your child has one. Your child's cardiologist (specialist heart doctor) has asked us to carry out an MRI scan on their heart so we can find out about its structure and how it is working.

What is an MRI scan?

MRI is short for Magnetic Resonance Imaging. This means that rather than using x-rays, the scan uses a strong magnetic field, radio waves and a computer to take very detailed pictures of inside the body. MRI scans do not hurt and nothing will touch your child during the scan, although they are very noisy. The MRI scanner is shaped like a short, open-ended tunnel with a bed that moves through the middle of it. Your child will lie down on the bed and the radiographer (specialist in taking images) will move the bed inside the tunnel.

If your child would like to watch a short film about having an MRI scan at GOSH, visit our website at www.gosh.nhs.uk/medical-information/procedures-and-treatments/mri-scan-without-sedation-or-general-anaesthetic/your-child-having-mri-scan-video-podcast or the GOSH YouTube™ channel.

Please bring a DVD to watch during the scan, or you may choose from our collection. Unfortunately, we are unable to play music.

Why does my child need an MRI scan?

When your child has (or has had) heart problems, it can be useful for the doctor to see detailed pictures of how your child's heart functions and how the blood vessels are arranged. This helps them to plan any treatment your child might need and/or monitor how well the treatment they are having is working.

Is cardiac MRI safe for everyone?

No. If your child has a cardiac pacemaker or other metal devices in their chest or body, aneurysm clips in their head, dental braces within the last six weeks, or history of metal fragments in the eyes then the magnetic field of the MRI scanner may not be safe for them. Please call the department immediately when you get the appointment letter if you have any questions about safety.

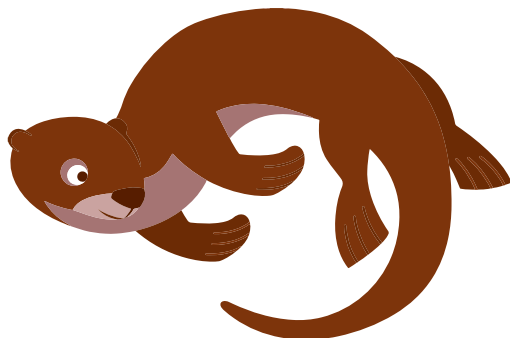
Important

You will need to tell us your child's full medical history from birth to the present day, including any operations they have had. We will then ask you to sign a metal check form stating that it is safe for your child to enter the MRI scanner. If you do not know this information we may have to cancel the scan.



Where is the Cardiac MRI department at GOSH?

It is on level 1 (basement) of the Variety Club Building within the Otter Imaging Suite. Details of how to get to GOSH are enclosed with your appointment letter and also available on our website at www.gosh.nhs.uk/parents-and-visitors/travelling-gosh. When you arrive at GOSH, ask one of our volunteer guides to show you to the lift or stairs down to Otter.



What should my child wear for the scan?

As the MRI scanner uses strong magnets, your child should wear clothing without any metal zips or fasteners – such as tracksuit bottoms and a t-shirt – or we can also give them hospital clothes to wear.

Can my child eat and drink before the scan?

Yes. Your child will be awake when they have the MRI scan so they do not need to stop eating and drinking beforehand. However, as they will be lying down, we suggest they avoid having a heavy meal or large amount of fluid before the scan as this could be uncomfortable.

On the day of the scan

When you arrive at the Otter Imaging Suite, you should tell the receptionist that you have arrived and sit down in the waiting area. A cardiac radiographer (an imaging technologist who specialises in taking MRI pictures of the heart) will ask you lots of questions for the 'metal check' to make sure that it is safe for your child to have the scan. We will also ask you and your child to take off anything metal, such as keys, coins, travel cards and so on and put them in one of the lockers.

We ask all females over 12 years about their periods and if there is any chance they could be pregnant and we can carry out a pregnancy test before the scan.

Your child's height and weight will be measured and their blood pressure will be taken.

Contrast

Most people will need contrast for the scan. This is done by injection – we will decide on the day whether your child will need it. If they do, we will put a cannula (thin, plastic tube) into a vein in their arm or hand – we can use local anaesthetic cream or cold spray so their skin is numb. If they need local anaesthetic cream, please tell the receptionist when you arrive so the cream can be applied 30 minutes before the scan. The contrast we use is called gadoteric acid (Dotarem®). Dotarem is an extremely safe contrast agent but with all drugs there are potential side effects, although these are extremely rare. We will be happy to discuss any questions you may have on the day.

What happens during the scan?

The radiographers will take your child into the scanning room and help them onto the scanner bed. They will put some electrocardiogram (ECG) leads on their chest and lay a light, rectangular coil device over these leads – this will not hurt. We will also put a blood pressure cuff around their arm so we can measure this during the scan.

Just before the scan starts, we will give your child some headphones to wear so the knocking sound from the MRI scanner is not too loud. When they are comfortably in position on the bed, the radiographer will go into the room next door to operate the scanner.

You can come into the scanning room with your child if you like – you will have to answer the metal check questions too and confirm that you are not pregnant. We will give you a set of headphones to wear as well.

The radiographer will talk to your child over the intercom and watch them through the window. They will move the bed inside the scanner and the scan will start. Your child will need to lie very still and try to relax during the scan – if they move, the images will not be clear and the scan will take longer. There will be parts of the scan where the radiographer will ask them to hold your breath for a few seconds as well but this will not be for long. Your child will usually spend between 45 minutes and one hour in the scanner – we will tell you when the scan is nearly over.

What happens afterwards?

The radiographer will tell you when the scan has finished and come back into the scanning room to take off the coil device, ECG leads and blood pressure cuff. We will also remove the cannula and put a small plaster on the area. They will help your child off the scanner bed and take you both back to the lockers so they can get dressed again (if they wore hospital clothes for the scan) and pick up your belongings. If your child is not having any other scans or appointments, you can go home when you are ready.

When do I get the results?

The Cardiac MRI consultant will look at all the scan results and write a report for your cardiologist. You will receive the results at your next clinic appointment.

If you have any questions, please call the Cardiac Booking Office on 020 7405 9200 ext. 5178