

Children's services  
Royal Brompton Hospital

# Your child's cardiac MRI scan

**This leaflet gives more information about your child's cardiac MRI. Please ask a doctor or nurse if you have any questions.**

## What is a cardiac MRI scan?

MRI stands for magnetic resonance imaging. An MRI scan uses a combination of a strong magnet and radio waves to produce detailed pictures of the inside of the body.

A cardiac MRI scan provides detailed images that show how your child's heart is developing and how well it is working.

A cardiac MRI scan helps doctors detect problems in the heart's structure or blood vessels. It provides information to help them decide how to treat your child.

## Help your child prepare for the scan

- Read this leaflet and explain what happens to your child. Keep it simple for younger children. The scan takes special pictures of their heart to help the doctor care for them.
- Practice staying still. Play a "statue game" at home to help your child get used to staying still for a few minutes.
- Teach your child how to take a breath and hold it for a few seconds at a time. Explain how they will be asked to hold their breath during the scan.
- Practice wearing headphones and earplugs at home. Explain to your child that the MRI scanner will make a lot of noise, like a washing machine. Your child will be given headphones or earplugs to help block out some of the noise.

## Preparing your child for their scan

Your child can eat and drink as normal. If your child is taking any medicines, please continue with them. If your child needs to do anything to prepare for the scan, we will send you information about this with your appointment letter.

## When your child arrives at hospital

Go to the main hospital reception at Royal Brompton Hospital. Staff will direct you to the Royal Brompton Diagnostic Centre nearby.

At the diagnostic centre, you will be directed to the waiting area. A member of our team will then take you and your child to the scanning room.

- In the scanning room, a member of our MRI team will carefully explain what will happen during the scan.
- We will ask you to complete and sign a safety questionnaire for your child before the scan.
- Your child may be asked to change into a hospital gown.
- We will also check to see if your child is wearing anything that contains metal, such as jewellery or glasses. We will help your child remove them.

## Contrast dye

Your appointment letter will explain if we need to use contrast dye for your child's scan. Contrast dye is used to make areas of the heart show up more clearly and in greater detail on the scan. This improves the quality of our pictures.

A doctor or nurse will place a cannula (a small plastic tube) into one of your child's veins. This is so the contrast dye can be injected.

If your child is anxious, they may be able to have some local anaesthetic cream that you can put on before the appointment. This stops your child feeling any pain when the cannula is put into the vein.

This injection is very safe. It can very rarely cause an allergic reaction. Your child may experience a headache, feel sick (nausea) or be sick (vomit).

Please note: If your child has any problems with their liver or kidneys tell the radiographer or another member of staff before the scan.

## The play team

Your child may be offered support by members of our play team. The team consists of qualified health play specialists and play assistants. They are specially trained to use play to help children cope with distressing experiences they may have while in hospital.

## The MRI scanner

- The MRI machine looks like a large donut with a flat bed that slides into it.
- It makes loud noises which sound like thumping or tapping. Your child will be given headphones or earplugs to block out some of the noises.

## The scan

A cardiac MRI scan usually takes between 30 and 90 minutes.

- Your child will lie on the flat bed. They may be asked to hold their breath for a few seconds during the scan. This helps us get the clearest pictures.
- Electrocardiogram (ECG) stickers and leads will be placed on your child's chest to monitor their heart rate. They are needed so that the scanner can take the pictures at the correct time.
- It is very important that your child stays still. We will guide your child during the scan.
- Your child will be given a buzzer to press if they need to attract our attention during the scan.
- Parents can often stay in the scanning room while the scan is being carried out. We will discuss this with you.

## After the scan

When the scan is finished, the cannula will be removed. Your child can return to normal activities unless told otherwise by the doctor.

## Scan results

The MRI images will be reviewed by a specialist, and your doctor will explain the results to you at a follow-up visit.

## Risks of a cardiac MRI

An MRI is very safe scan for most people. MRI scans do not use radiation.

However, children with certain heart pacemakers and other surgical implants might not be able to have an MRI scan.

Many children with a heart condition have had procedures where metal is used. For example, a clip, stent (a small metal tube inserted into blood vessels), valve or device. Most of these can be safely scanned. However, this will need to be confirmed before your child has the scan.

You will need to complete and sign a safety questionnaire for your child before their scan. This is to make sure it is safe for them to be scanned.

If your child cannot have an MRI scan, the cardiologist (specialist heart doctor) might suggest a different type of imaging.

## Changing your child's appointment

If your child cannot attend this appointment, please let us know as soon as possible. This means that we may be able to offer the appointment to another child.

If you need to cancel your child's appointment, we will try to rebook it as soon as possible.

## Contact us

If you have any questions or concerns about your child's MRI scan, please contact us at:

**Email** [gstt.cmrbooking.rbh@nhs.net](mailto:gstt.cmrbooking.rbh@nhs.net)

**Phone** 0330 12 87742, Monday to Friday, 9am to 5pm, or leave a message

### Was this leaflet useful?

If you have any comments about this information, we'd be happy to hear from you.

**email** [gstt.healthcontent@nhs.net](mailto:gstt.healthcontent@nhs.net)

### Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please contact the department your appointment is with.

### Your comments and concerns

For advice, support or to raise a concern about any service or department at Royal Brompton and Harefield hospitals. Contact our Patient Advice and Liaison Service (PALS):

- Royal Brompton Hospital **phone** 020 7349 7715
- Harefield Hospital **phone** 01895 826 572

Or **email** [gstt.rbhh-pals@nhs.net](mailto:gstt.rbhh-pals@nhs.net)

### NHS 111

This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day,

**phone** 111 **web** [www.111.nhs.uk](http://www.111.nhs.uk)

### Become a member of the Trust

Members contribute to Guy's and St Thomas' NHS Foundation Trust on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it's up to you how you get involved. To find out more, **phone** 0800 731 0319 **email** [gstt.members@nhs.net](mailto:gstt.members@nhs.net) or **web** [www.guysandstthomas.nhs.uk/membership](http://www.guysandstthomas.nhs.uk/membership)

**Resource number: 5548/VER1**

Last reviewed: October 2025

Next review due: October 2028

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