

# Cardiac MRI Patient Information Leaflet



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Bwrdd Iechyd Prifysgol  
Caerdydd a'r Fro  
Cardiff and Vale  
University Health Board

This leaflet provides information about your cardiac magnetic resonance imaging (MRI) scan, how to prepare for it and what is involved.

We have scanners across three hospital sites - University Hospital of Wales, Noah's Ark Children's Hospital for Wales and University Hospital of Llandough. Please ensure you have read your letter and attend the correct site.

## What is an MRI scan?

An MRI scanner uses a very strong magnetic field and radio waves to produce images of the body. These images can be used for diagnosing a large number of pathologies and used to plan treatments. MRI does not use ionising radiation like x-rays, and there are no known long-term health risks.

## What is a cardiac MRI scan?

A cardiac MRI is a test used to look at your heart and major blood vessels. Hundreds of still and moving pictures will be taken of your heart to see its structure and to make sure it is functioning correctly.

## Is there any preparation before the MRI scan?

The MRI safety questionnaire included with your appointment letter, must be completed prior to your scan to ensure that you're safe to enter the MRI scan room.

If you answer YES to any of the questions, it is very important that you contact us.

**MRI queries line on 02921 846990, Mon-Fri 9am-5pm**

If you do not contact us, this may result in delays on the day or cancellation of your appointment.

Implants and devices must be reviewed prior to your MRI scan. Such queries can take some time to clarify so please be patient as this is for your own safety. Due to the MRI scanner using a very strong magnetic field, there could be situations where you may not be able to undergo your MRI scan.

Patients who have had penetrating injuries involving metal to their body, especially the eyes, may need to have an x-ray before their MRI scan. This is to ensure there are no pieces of metal remaining.

A clear chest is required for this scan in order to apply ECG electrodes to your chest which enables us to monitor your heart rate throughout the scan. For this reason we ask men who have chest hair to remove prior to arriving for scan.

## Can I bring my children?

We are unable to provide child care and your children cannot come into the scan room. Please bring along an adult who can take care of your child whilst you have your MRI scan if they cannot stay at home.

## What happens on the day of my MRI scan?

Once you have been greeted at reception by a member of staff, a radiographer will run through the MRI safety questionnaire you have completed. You will be given the opportunity to ask any questions you may have. The radiographer will ask you if you are happy for the scan to proceed.

Before entering the scan room all metal items need to be removed from your body and placed in a locker or left with a companion. This will include watches, piercings, jewellery, hair clips, metal plate dentures, coins, credit cards, keys and mobile phones. You may be asked to change into metal free clothing especially if you are wearing sportswear with metal threads.

Some scans do require an injection of MRI contrast. If this is the case then a cannula will be inserted into one of the veins in your arm either before or during the scan.

When safe and ready the radiographers will ask you to lay down on the scan table. The radiographers will need to access your chest apply ECG electrodes. They will then clean your chest with a cold gel to ensure the electrodes stick correctly. Once applied, the ECG lead is then connected to the electrodes. You will be given either ear plugs or

headphones to protect your ears from the noise of the scanner, which makes a loud, knocking noise when the scan is taking place. You will have a buzzer in your hand so that you can alert the radiographer at any point.

A piece of equipment will be laid across your chest and your chest will be positioned within the middle of the scanner. The Radiographers can see you at all times and can communicate through an intercom system. A cardiac MRI scan usually lasts between 45 and 105 minutes depending on what the Radiologist has requested. It is important that you lie perfectly still throughout the scan and follow the breathing instructions. Please let the radiographers know if you suffer from breathing problems as they can adapt the technique to ensure you are able to follow the breathing instructions sufficiently.

**What is MRI contrast?**

MRI contrast is a liquid dye that is used to enhance the appearance of anatomy during an MRI scan. It contains gadolinium and is sometimes administered to patients during MRI examinations at the request of the radiologist (a specialist doctor trained to interpret the images). It is known that a small amount of gadolinium may remain in the body after a scan where contrast is administered. However, there is no evidence that gadolinium deposition has caused any harm to patients. If you need a scan with an MRI contrast agent to help with your diagnosis or treatment, you will be prescribed the lowest dose required for a clear image to be obtained. Further information from the manufacturer is available on request.

**What happens after my scan?**

After the scan is completed you are free to leave the department and can continue with your day.

Radiographers cannot give you the results of your scan, but will inform you how long it will take for the results to be written and how to obtain them.