



## Cardiovascular Stress MRI - Patient Information

**HEADLINE: PLEASE DO NOT CONSUME CAFFEINE FOR 24 HOURS BEFORE YOUR TEST.** For further information see below.

### What is a Cardiac Stress MRI?

MRI stands for Magnetic Resonance Imaging. A powerful magnet is used to take detailed pictures of your heart. It does not use x-rays. The stress part involves a medication called Regadenoson or Adenosine being injected into a vein in your arm. This simulates the effect of exercise on your heart.

### What do I need to do before the test?

1. Check your appointment date, time and location carefully. Contact us as soon as possible if you will be unable to attend your appointment. The telephone numbers are on your appointment letter.
2. Due to the strong magnetic field, it is not safe for some people to have an MRI scan.

#### Contact MRI, as above, if you:

- Are, or could be, pregnant. We consider on a case-by-case basis, with your doctor, what type of scan is appropriate and at what stage.
- Are breastfeeding.
- Have any electronic device in or attached to your body, e.g. pacemaker, implanted defibrillator, neuro-electrical stimulator, cochlear implant.
- Have a programmable VP shunt. This is a tube draining fluid from your head to your abdomen, which can have its settings adjusted without an operation.

#### Contact MRI if any of the following apply to you and you have not had an MRI scan in this hospital since:

- You have previously had an accident where metal fragments have entered your eyes or body.
- You have surgical clips in your head from an open operation.
- You have had surgery or a procedure in the last 8 weeks, where anything was inserted or implanted into your body. This includes stents, pill (or capsule) cameras, endoscopy with treatment, clips on blood vessels or ducts and contraceptive coils. If you are unsure whether your procedure included any implant, please contact MRI.
- You have had a recent tattoo which is not fully healed.
- You have had surgery or a procedure to implant anything into your body more than 20 years ago or in another country at any time.

These situations may require further investigation, possibly including x-rays. Failure to contact us regarding the above may result in your scan being cancelled or postponed on arrival.

3. We need to be able to talk with you. If you cannot speak English and require a translator, please call us. If you cannot answer questions for any other reason, a next-of-kin who knows your history must accompany you. If this is not possible please contact MRI.

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4. All patients undergoing any consultation, examination or procedure are entitled to have a chaperone present if requested.
5. **PLEASE DO NOT CONSUME ANY CAFFEINE FOR 24 HOURS BEFORE THE TEST.** This includes tea (including decaffeinated), coffee (including decaffeinated), cola, red bull or other “energy drinks”, chocolate (including hot chocolate) and over-the-counter cold medication.
6. Contact us if you take the following medications:  
**Dipyridamole.** This may be called **Persantin** or **Asasantin**.  
**Aminophylline.** This may be called **Phyllocontin**.  
**Theophylline.** This may be called **Uniphyllin**.
7. If you have a morning appointment, please do not eat anything that morning before your appointment. If you have an afternoon appointment, you may eat before 09:30.
8. Continue to take all other medications as normal.
9. Please bring a list of your regular medications or repeat prescription with you.

## **How long does the procedure take?**

The scan takes approximately one hour, with the stress part usually only taking a maximum of 15 minutes. Please arrive 20 minutes before your appointment time to allow for safety checks and other preparation. Please also allow for a five to ten minute walk from the car park to the imaging department.

We do our best to run on time, but your scan may be delayed due to emergencies.

## **Where do I go for the scan?**

MRI scanning is located within the imaging department. The Trust has several sites so your appointment letter will specify the site that your scan is booked on.

## **Can I bring a relative or friend?**

You will be able to return home immediately after the test, but it is advisable to have a relative or friend drive.

Please do not bring a child under 16 years old with you. If this is unavoidable, you MUST bring another adult (over 18) to supervise them, otherwise your scan will be postponed.

## **What should I wear?**

You will need to change your top half clothes for a hospital gown for this test. You may keep your trousers or skirt on if they have no metal fasteners. Tracksuit bottoms, leggings or pyjama trousers are ideal. However please avoid clothes containing metal fibres, usually found in some sportswear and underwear. Changing facilities are provided.

If you are wearing a **medicinal skin patch, silver wound dressing, or glucose monitoring system** (such as the 'Libre'), please bring a spare with you as you will be asked to remove them.

**All metal jewellery, bangles, piercings and hair accessories (including clipped extensions) must be removed.** If you cannot remove your jewellery yourself, please have it removed before attending for your scan.

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Failure to remove certain items may lead to your scan being postponed. You may usually keep a plain metal finger band in place.

Please leave valuables at home. A small locker is available for essential items such as keys, watches and wallets.

### **What happens during my scan?**

On arrival, you will be asked to complete a safety check list which the Radiographer will go through with you. They will also explain the procedure to you and answer any questions you may have. Once you are ready, you will be taken through for your scan.

The machine is shaped like a short tunnel but is well lit and open at both ends. Once you are lying on the scan table, a cannula will be inserted into the vein in your arm. ECG electrode stickers will be attached to your chest to monitor your heart rate. A sensor pad is placed loosely over your chest, and the table then moves into position. We understand that some people get anxious about going into the tunnel, however please be reassured that the majority of patients find the scan a much easier experience than they expect. However, if you find enclosed spaces particularly difficult (e.g. using lifts) please call us for advice before your appointment.

During the scan, the Radiographer will be able to see you from the control room and will be in communication with you via an intercom. You will be given a buzzer so that you may get the Radiographer's attention at any time. The machine makes repetitive knocking noises as the diagnostic images are being taken. You will be given ear protection for the test. This will reduce the volume.

It is important to keep very still during the scan. You will be asked to hold your breath for a lot of your scans in order to minimise movement. Please tell the Radiographer if you think this will be difficult for you.

When the stress medicine is being given, the Doctor and the Radiographer will be in the room with you. During the test you will also be given an injection of contrast dye through the same cannula, to show the blood flow through the heart muscle. This dye does not have any after effects.

### **What happens afterwards?**

You will usually be able to leave straight after the test at which point you may eat and drink and take medication as normal. You can resume your normal activities.

You will get the results of your scan from your referring Consultant, either at your next appointment or by letter.

### **Are there any risks involved in this test?**

MRI does not use x-rays. Provided the appropriate safety checks are made beforehand, there are no known risks or side-effects associated with MRI scans.

You are unlikely to feel any effect from the contrast dye. Very occasionally it may cause an allergic reaction. Careful individual consideration is taken over giving contrast to patients with pre-existing kidney failure.

Serious side effects from the stress medication are rare, occurring in less than 0.3% of cases. Mild, brief side effects include chest discomfort, dizziness, and transient changes in heart rhythm. These will be fully explained to you by the doctor before the procedure.

## What are the benefits of the test for me?

A cardiovascular stress MRI allows doctors to visualise the anatomy, structure and function of the heart. This enables the diagnosis of a number of cardiovascular diseases, in order to decide on the right treatment.

## Contact details

Queen Elizabeth Hospital Birmingham  
Mindelsohn Way  
Birmingham  
B15 2GW  
Tel: **0121 371 2000**

Heartlands Hospital  
Bordesley Green E  
Birmingham  
B9 5SS  
Tel: **0121 424 2092**

Solihull Hospital  
Lode Ln  
Solihull  
B91 2JL  
Tel: **0121 424 4089**

Good Hope Hospital  
Rectory Rd  
Sutton Coldfield  
B75 7RR  
Tel: **0121 424 7760**

## MRI Imaging

University Hospitals Birmingham NHS Foundation Trust

## Accessibility

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## How did we do? ☺ ☻ ☻

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