# **MRI** Patient Information

### **Cardiac Stress test**

Author: Anita Haylett, Head of CT/MR CT & MRI Scanner Suite





This leaflet contains important information about your booked MRI Cardiac stress test.

Please take the time to read it.

For more information, please contact the CT & MR department. Telephone: (01493) 453260

#### What is an MRI scan?

A Magnetic Resonance Imaging (MRI) scanner uses strong magnetic fields and radio waves to build up pictures of the body. The pictures are very detailed and can therefore give a great deal of information. This test has been recommended by a cardiologist to provide more detailed information about your heart.

### Are there any risks associated with MRI?

As far as is known, MRI is an extremely safe procedure with no side effects. The strong magnetic fields mean that there are some people who may not be able to have MRI:

- If you have had a history of metal fragments in your eyes (for example, from welding or grinding injuries), it may be necessary to have an x-ray of your eyes to prove there is no metal left.
- If you have any implants which are electronic, e.g. a pacemaker or that are magnetically adjustable, e.g. a programmable shunt in your head or adjustable rods in your spine.
- If you have a metallic clip on an artery in your brain, it may be unsafe for you.
- If you have a stent in any of your arteries you can normally have MRI but if it is
  in a blood vessel anywhere other than your heart, we would need to find out
  what sort of stent it is.

Please contact us, on the number above, if you think any of these apply to you or if you have ever been told that you must not have MRI for any reason.

The majority of surgical implants can be scanned but we do need to know about them. The same applies to most metal fragments from injuries if they are not in your eye.

If you are (or might be) pregnant, please contact us. There is no evidence to show that MRI is harmful in pregnancy but we prefer to know if you are. MRI is considered to be much safer in pregnancy compared to some other investigations. However, we would avoid injections of contrast to highlight the tissues and blood supply, if you are.

### Can I eat and drink normally before the cardiac stress test?

It is very important that you do not eat or drink anything containing caffeine for 24 hours before your appointment. Caffeine changes the action of the medication we use during the scan and will affect the results of your test. If you are diabetic eat as normal but continue to avoid caffeine and chocolate.

#### Please avoid the following:

- Tea and coffee (this includes green tea and decaffeinated varieties which can still contain small amounts of caffeine).
- Chocolate in any form (including cocoa and foodstuffs).
- Colas and some other drinks including sports and energy drinks (please read the label carefully).
- Some painkillers, cold and flu medications contain caffeine (please read the label carefully).

### Is there any other preparation before the scan?

#### **Medicines and inhalers**

We cannot carry out your scan unless we are aware of all the medications you are currently taking. Please bring a list of these with you. This should include inhalers, sprays and any medication you have bought over the counter without prescription. If you cannot bring a list, please bring all the medicines in their original containers.

#### Please contact Dr Nair's secretary on 01493 453772, if you are prescribed:

- Inhalers for Asthma or Chronic obstructive pulmonary disease (COPD)
- Dipyridamole (also known as persantin or asasantin).
- Theophylline or Aminophylline (also known as neulin, slo-phyllin, uniphyllin, phyllocontin).

#### Jewellery/personal effects

- Due to the magnetic field and heating effect, please remove all jewellery or items containing metal (you will be allowed to wear one gold wedding band only). Due to limited space and facilities it is advisable to leave your valuables at home or with your escort for safe keeping. Electronic devices also have to be left outside of the room.
- If you have had a tattoo that will be less than two weeks old at your appointment date, can you please call us as soon as you receive this appointment.
- Heavy make-up should be avoided.

### On the day of your appointment

Please do not eat anything on the morning of the test, but you may continue to drink fruit juice, milk or water. If you are diabetic eat as normal but continue to avoid caffeine and chocolate.

On arrival, you will be asked to complete and sign a safety questionnaire about your health and medical history. This allows us to check that you do not have any implants which may be a problem in the scanner. If you have surgical implants and have been given a card with details of the make and model, it can be very helpful if you could bring this with you.

You will be asked to change into a gown and two cannulas (small plastic tubes) will be placed into the vein in your arm to enable us to administer the medication required for the test. Your blood pressure and heart rate will be checked.

## What happens during the scan?

You will be taken into the MRI room and positioned on the scanner couch. We attempt to make you as comfortable as possible as it is important that you keep very still for the scan.

The machine is very noisy during each scan and you must have some form of hearing protection. We will normally use ear defenders for this. You can also have earplugs if you wish, especially if you have particularly sensitive hearing.

We will not be able to hear you whilst the scans are running but we can see you. We will give you an emergency buzzer in the scanner so that you can alert us if you have any problems. The team will talk to you during the examination.

The couch will be moved slowly into position so that the part of your body being scanned is in the middle of the scanner, which is open at both ends and is well lit.

The MRI examination usually involves several scans of different lengths and you will hear the noise stop and start.

### Will I need an injection?

You will be given injections during the scan. You will receive two injections in your arms, one will simulate exercise (stress test) and the other will allow us to take images of your heart. Your blood pressure and heart rate will be monitored and the team will talk to you during the stress component to reassure you about any symptoms that you may get.

Contrast is necessary for the imaging of your heart function and helps to produce a more detailed image. As with all medication, a very small number of people will be allergic to this. Mild reactions (such as warmth and nausea) are uncommon, between 1 in 100 and 1 in 1000. More severe reactions are rare or very rare, between 1 in 1000 and 1 in 10,000 or even less. Effects such as warmth pass very quickly.

Very occasionally during an injection, a small amount of the liquid leaks out of the vein into the surrounding tissue. This can cause bruising, swelling and sometimes discomfort. In the unlikely event of this occurring, we will provide you with further instructions.

# How long will it take?

You will be in the MRI department for up to two hours. Please do not bring children requiring supervision with you to your scan. You will be taken to the MR scanner in a van outside and there is no waiting space within it. Please call us on the number above if this will cause you any issues, however we may need to rebook your appointment.

You should remain in the department for 20 minutes after the scan whilst we monitor you following the injections.

### What happens after the scan?

You will be able to continue with your normal daily activities. You can eat and drink as normal and you will be able to drive as the scan does not cause drowsiness. You may continue with your normal medication.

The results will not be available immediately. A consultant radiologist or cardiologist will report on the scan and this will be sent to the doctor who requested it.

If you notice a delayed skin rash or facial swelling over the three to four days following any injection, then please contact your GP and call us on 01493 453260 so we can make a note in your records.

#### Feedback

We want your visit to be as comfortable as possible. Please talk to the person in charge if you have any concerns. If the ward/ department staff are unable to resolve your concern, please ask for our Patient Advice and Liaison (PALS) information. Please be assured that raising a concern will not impact on your care. Before you leave the hospital you will be asked to complete a Friends and Family Test feedback card. Providing your feedback is vital in helping to transform NHS services and to support patient choice.



The hospital can arrange for an interpreter or person to sign to assist you in communicating effectively with staff during your stay. Please let us know.

For a large print version of this leaflet, contact PALS 01493 453240