

Having a Stress Cardiac MRI Scan

Information and Preparation for Patients



MRI - Magnetic Resonance Imaging is a scanning technique used to look inside the body. It does this by using strong magnetic fields and radio frequency waves.

The scanner is a large cylinder which is open at both ends and the patient lies in this for the scan

Stress Cardiac MRI scan

Your doctor has requested that you have a stress MRI scan of your heart. Please read the information below for your information and to prepare for the scan.

A stress Cardiac MRI scan is a scan of your heart during which you will be given a drug called adenosine. This mimics the effect of exercise on your heart whilst you are lying down in the scanner.

If you have any of the following please call us to let us know:

- Asthma or if you require any inhalers
- If you have problems with your kidney function
- If you are currently taking Persantine/dipyridamole or theophylline

Please also bring a list of your current medications with you.

This is a safe test to undergo although in rare cases a very small number of patients have experienced some reaction to the medication. You will be carefully screened for your suitability to undergo the test and closely monitored throughout.

12 hours before the test

For the 12 hours before your scan appointment it is essential that you do not have any caffeinated drinks, food or medication. This includes:

- Tea/coffee (including de-caffeinated)
- Hot chocolate
- Ovaltine or Horlicks
- Fizzy drinks
- Caffeine-containing painkillers or cold medication
- Chocolate

Failure to comply with these instructions may cause inaccurate results and it may not be possible to perform your scan.

You may otherwise eat a normal diet and drink water, squash, milk and fruit juices.

The day of the test

You will need to go to the Cardiac Centre before coming to the MRI department to have an ECG (heart trace) reading taken. Please read the information in your appointment letter which will tell you what time to attend and how to get there.

When you have had your ECG reading please bring it to the MRI Department and book in at the reception desk.

You will need to remove all clothes that have metal zips or fasteners. You may bring other clothes to change into, such as tracksuit bottoms or pyjamas but you will have to wear a gown on your top half.

You will also need to remove any metallic objects such as hearing aids, keys, money, mobile phone etc. before being scanned. These will be placed in a secure locker along with your clothes. You do not need to remove a wedding ring.

The radiographer will then go through the patient safety questionnaire with you to confirm your answers and explain what happens during the scan. They will also measure your height and weight.

After changing into a gown the radiographer will escort you into the scan or prep room. At this point the radiographer will insert 2 small cannulas (flexible tubes) into a vein in each arm and position you on the scanning couch.

You will be lying on your back and once comfortable, ECG wires are placed on your chest and a blood pressure cuff will also be used on one of your arms to monitor your blood pressure and your heart rate during the scan.

A light-weight pad, called a coil, is then placed over your chest.

The scanner makes a loud noise when it is in operation so you will be given some headphones to wear to reduce the noise and allow you to hear the radiographer talking to you through them.

You will be given an alarm buzzer to hold during the scan to use if you need any assistance.

During the test

For the first 15 minutes scans of your heart will be taken to see how well it is working. After this your heart will be “stressed” with a drug called Adenosine which makes your heart work harder as if you were exercising.

You will only receive this drug for about 3 minutes. For the first 30 seconds to a minute you may not notice anything. After a minute you may start to feel a little breathless and get a tight chest and feel flushed.

After 3 minutes, more scans will be taken and you will receive a contrast injection to show the blood supply to the heart. This scan takes about 1 minute and during this time the adenosine injection is turned off and any symptoms you had will disappear within seconds.

After the stress part of the scan is completed there will be a further 20 minutes of scanning.

While your heart is being stressed you will be in full contact with the staff and will be closely monitored

How long will the scan take?

Usually the scan will take about an hour as we have to acquire lots of images of your heart and heart vessels at various different angles.

You are welcome to bring a CD with you to listen to music whilst in the scanner.

You will be asked to hold your breath for short periods of time, between 10 and 15 seconds when the scans are happening.

It is important to remain very still on the scanner so that the scans do not have to be repeated

After the test

There is nothing special to do after the test and you can eat, drink and take your normal medications.

You are fine to drive home but some people feel a little tired so you may want to bring someone with you.

When do I get the results?

The scans are reported by a cardiac radiologist or cardiologist after they have been processed by the computer. This report will be sent to the doctor who referred you for the scan.

Pregnancy

Although MRI is a safe procedure we do not undertake stress Cardiac scans on pregnant patients because of the adenosine and contrast injections required. If you are pregnant please contact us or your referring doctor for advice.

Contact

If you have any questions or need further information regarding your scan please call the MRI department on Tel: **01225 824072**

The MRI Department is situated in Dept. B8

