



Royal Papworth Hospital
NHS Foundation Trust

Adenosine stress MRI scan preparation

A patient's guide

Your doctor has requested that you have a stress MRI scan of your heart. For your information and in preparation for this appointment please read the details below carefully.

A stress MRI scan is an MRI scan of your heart where a very short part of the scan will involve giving you a low dose of a drug called adenosine. This will mimic exercise and increase the workload on your heart slightly.

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

- Asthma or if you require any type of inhaler
- If you currently have any kidney function impairment or have had or are awaiting a liver transplant
- If you are currently taking Persantine/Dipyridamole, Theophylline, Aminophylline, Phyllocontin or Continuous Uniphyllin

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

Please bring a list of all your current medications or a repeat prescription print-out with you.

Before the test

For the 24 hours before your scan it is essential that you do not have any caffeinated drinks or medications that contain caffeine. This includes:

- Tea/coffee (including decaffeinated)
- Hot chocolate
- Ovaltine or Ovaltine-style drinks
- Horlicks - or Horlicks-style drinks
- Fizzy drinks
- Energy/sports drinks
- Caffeine-containing painkillers (many painkillers do contain caffeine - please check the label)

It is also essential that you do not have any chocolate or anything containing chocolate for the 24 hours before your scan. You may eat an otherwise normal diet and you may drink fruit juice, squash, milk and water.

In the four hours prior to your scan please do not have a heavy meal.

Diabetic patients may have a light meal two hours before the test.

If possible, you should **stop** taking drugs containing nitrates (commonly used in patients with angina) for 24 hours before the scan.

Commonly prescribed nitrates include:

- Glycerol trinitrate (GTN)
eg Coro-Nitro Pump spray,
Glytrin spray
- Isosorbide mononitrate e.g.
Cibral, Elantan, Isotard,
Chemydur, Monomil
- Isosorbide dinitrate e.g.
Isordil, Sorbitrate and
Nicorandil

If you have a GTN patch, please leave this on - we will remove it before your scan.

If you have a GTN spray, take it if you need too but inform us when you arrive for your scan.

Take all other medications as instructed by your doctor.

The test is safe although in extreme and very rare cases a very small number of patients have been known to

experience some reaction to the medication.

You will be carefully screened for your suitability to undergo the test and closely monitored throughout.

The day of the test

Please arrive and use the self-check-in kiosks and take a seat.

The test takes about 60 minutes. Please allow at least two to three hours from the time you arrive to the time you leave.

You will be asked to change into a hospital gown. Sportswear such as shorts, leggings, sports bras etc are not suitable for wearing during MRI scans.

You will be asked to remove all metal objects and jewellery/ piercings; however, you can leave your wedding ring on. If you wear a hearing aid you will be asked to remove it and you may be asked to remove any dentures.

Before the test starts, you will be asked questions about your medical history and the

medication(s) you are taking. This is to make sure it is safe for you to have an MRI scan. The procedure will also be explained to you.

An electrocardiogram (ECG) will be taken. This is a recording of your heartbeat on paper.

Two intravenous (IV) lines will be placed into your arms. Your heart rate and blood pressure will be monitored during the study. If there is a problem with these recordings, the test will be stopped.

You will be asked to lie on a table that goes into the MRI scanner.

During the test

During the first 15 to 20 minutes, scans of your heart will be taken to see how well your heart is working. After this a drug called adenosine will be administered. This will increase the workload of your heart similar to exercising.

You will only receive the drug for about 5 minutes. For the first 30 seconds to a minute you will not notice anything,

and then you may feel a little breathless and get a tight chest, and you may get a hot flush.

After 3 minutes you will be given an injection of a contrast agent called gadolinium and pictures will be taken showing the blood supply to the muscle of the heart. This will take about 1 minute.

During this scan the adenosine is turned off and any symptoms you did get will disappear within seconds.

While the adenosine is being given you will be fully monitored and in contact with the staff. After a short break, there is about a further 10 minutes of scanning.

During the test, you will hear knocking sounds as the machine takes pictures. We will also prompt you with instructions. For example, we may ask you to hold your breath for 8-10 seconds.

After the test

There is nothing special to do after the scan and you will not notice anything from the injections.

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

You may resume your normal activity unless your doctor tells you differently.

Take your regular medications as directed unless your doctor tells you differently.

The test results will be sent to the doctor who ordered the test. Keep any scheduled follow-up appointments with your doctor.

Useful contacts

If you have any questions or queries regarding your scan, or any of the information provided in this leaflet, please call 01223 639924. Alternatively, you could email us at the address below.

Email: papworth.mri@nhs.net

Royal Papworth Hospital NHS Foundation Trust is committed to adhering to all Data Protection Legislation, including the General Data Protection Regulations, that came into force in May 2018. If you would like more information with regard to how we process your information, please visit our website: <https://royalpapworth.nhs.uk/our-hospital/information-we-publish/privacy-request>

If you would prefer a paper copy, then please show this letter to the receptionist and request that they print it for you.

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