



Royal Papworth Hospital
NHS Foundation Trust

Dobutamine 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 is a standard MRI scan of your heart; however, part of the scan will involve an intravenous infusion of a drug (dobutamine) that increases the workload of your heart.

If you currently have any kidney function impairment or have had or are awaiting a liver transplant please call to let us know.

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

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

Before the test

If you are taking any beta-blocker drugs, you should **stop** them for 24 hours prior to your scan and on the morning of the examination. Commonly prescribed beta-blockers include:

- Atenolol
- Metoprolol
- Propranolol
- Sotalol
- Carvedilol
- Bisoprolol

Beta-blocker containing eye-drops for glaucoma may still be taken.

You should stop taking drugs containing nitrates (commonly used in patients with angina) for the 24 hours preceding the scan.

Commonly prescribed nitrates include glyceryl trinitrate (GTN) (eg Coro-Nitro Pump spray, Glytrin spray), isosorbide mononitrate (eg Cibral, Elantan, Isotard, Chemydur, Monomil), isosorbide dinitrate (eg Isordil, Sorbitrate) and Nicorandil.

If you are taking a drug called Ivabradine, please stop 24 hours prior to your scan.

Take all other medications as instructed by your doctor.

You may eat a normal diet and you may drink fruit juice, squash, milk and water. Please avoid food or drinks containing caffeine. This includes tea & coffee (including decaffeinated), chocolate, fizzy drinks and energy drinks. ***However please do not eat or drink anything for four hours prior to this test.***

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

The day of the test

The test takes about 60 to 90 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.

One or two intravenous (IV) lines will be placed in to 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.

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.

During the test

During the first 20 to 30 minutes, pictures will be taken to observe how your heart is working.

After this you will be administered a medication called dobutamine. This medication affects your heart in a manner similar to exercising, by increasing the workload of your heart. A doctor will be present in the scanning area while the medication is given.

The dobutamine infusion will begin at a dose determined by your weight. Approximately every three minutes the infusion rate will be increased. At each infusion rate MR images of your heart will be obtained and compared with the resting images. When a

heart contraction abnormality is detected or your target heart rate (based on your age) is reached, the dobutamine will be stopped.

The infusion part of the scan can take up to 30 minutes. The medication will be stopped if you develop severe chest pain, severe shortness of breath or major changes in your heartbeat or blood pressure. After stopping the medication, any symptoms you are feeling will gradually wear off. Rarely will you need medication to stop any chest pain, shortness of breath or major changes to your heartbeat.

While the dobutamine is being administered you will be given a contrast agent called gadolinium and pictures will be taken of your heart. While the dobutamine is being given, you will be fully monitored and in contact with staff. After a short break, more pictures will be taken to look for any scarring of the heart muscle.

During the test, you will hear knocking sounds as the machine takes the pictures. We will also prompt you with

instructions. For example, we may ask you to hold your breath for eight to ten seconds. It is important for you to stay as still as possible because movements can create blurring of the pictures.

At the end of the test your IV lines will be removed.

After the test

After the scan you may feel tired for the next 2-3 hours and we usually advise you have something to eat or drink before returning home. If possible, we advise not driving immediately after the test.

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 would like to know more about this procedure, please telephone the MRI Appointments Office on 01223 639924, Monday to Friday, and we will do our best to help. 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 here: <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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Author ID: Lead MRI Radiographer
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Reprinted: September 2018
Review date: September 2021
Version: 4.2
Leaflet number: PI 61

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