

## INFORMATION FOR PATIENTS

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# Dobutamine stress echocardiogram

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This leaflet provides information about your forthcoming test. Please read this carefully. We will go through it in more detail during your appointment and you will be given opportunity to ask any questions you may have.

### **What is a dobutamine stress echocardiogram (DSE) and why do I need it?**

DSE is a specialised test combining a normal ultrasound scan of your heart at rest and during exercise - we use a medication called dobutamine rather than doing physical exercise.

Angina is a pain associated with disease of the blood vessels supplying heart muscle (coronary arteries). The way the heart muscle behaves during this test will inform us if your symptom is due to angina. Occasionally, we may use this test to assess other conditions including heart valve problems. The test will also provide good information of the structures within your heart.

### **How do I prepare for the test?**

Unless you have been specifically advised otherwise, you must **STOP the following medications for 48 hours** before the test:

- Beta-blockers (Bisoprolol, Metoprolol, Sotalol, Atenolol, Carvedilol, Propranolol, Nebivolol)
- Verapamil
- Diltiazem (e.g. Adizem, Slozem, Angitil)
- Ivabradine (e.g. Procorolan).

Please continue all your other medications as usual, but bring them all with you on the day of your test. **Please eat and drink as normal.** You are not required to fast but we advise you to avoid heavy meal 2 hours before the test.

### **How is the test done?**

This test will be done in the cardiorespiratory department, Clinic 4, at King's Mill Hospital. A cardiac physiologist (a qualified specialist who operates the ultrasound equipment) and a doctor or nurse will be present during the test.

Prior to the test, you will be required to remove your clothes from waist up and a gown will be provided. You will be attached to several stickers and ECG wires in order to monitor your heart tracing during the test and a blood pressure cuff will be placed on your arm for monitoring. A small plastic tube (cannula) will be inserted into your vein in your arm/hand, for us to administer the medication during the test. You will be lying on a couch on your left hand side throughout the procedure.

If not previously done, we will start the test by taking several images of your heart using the ultrasound machine to ensure that the test is safe to go ahead. We will then give you dobutamine via a slow pump. The dose of this drug will be increased every 3 minutes, and your heart rate will increase. The physiologist will be taking images of your heart several times before, during and after the infusion of dobutamine. The test will be stopped once your heart rate has achieved the desired target. We may stop the test early if you do not feel well enough to continue or if we find any changes during the scan that requires us to stop. We may also use a dye, called a contrast agent, to make the picture quality better.

### **How will I feel during the test and is the test safe?**

Dobutamine mimics exercise, so you will most likely feel effects similar to exercise or anxiety. Common effects may be racing heartbeat, breathlessness, chest tightness, dizziness or nausea. You may also experience dry mouth and blurred vision if we use another drug called atropine, but this effect does not last long. You may have some discomfort from the area where the tube was inserted in your arm/hand or from the area in the chest where the ultrasound probe has been pressing.

The test is generally safe. The overall risk from the test is small with very low chances of more serious complications like heart attack (1 in 2000) and abnormal heart rhythm (1 in 1000). There is a small risk (1 in 1,000) of having an allergic reaction to the medications used [1].

Your safety is our top priority and you will be monitored very closely during and after the test by our team. You will only be allowed to go home once we are satisfied that you have recovered from the test.

### **How long is the test and what happens after?**

Although we only give the dobutamine (exercise part) for a maximum of 15 minutes, the whole process can take up to an hour. Once the test is completed, you will be taken to the waiting area for 30 minutes to allow for full recovery. Once we are satisfied, you will be allowed to go home. The effect of the test should have worn off by the time you leave. We still advise you to **avoid driving** after the test and arrange for someone to take you home. This is because the medication we use may impair your ability to drive. You may feel tired for the rest of the day so you are advised to take things easy.

### **When will I get the result?**

To allow for us to analyse your result accurately, the results will not be available immediately. We will send the result to the doctor who requested the test. He/she will either get in touch with you or give the result at your next appointment.

### **What if I need hospital transport?**

If you need hospital transport due to medical reasons you will need to arrange this by using one of the numbers below:

- Nottinghamshire/Leicester: 0345 266 9662
- Derbyshire: 0300 300 3434
- Lincolnshire: 0843 357 1556.

### **Contact details**

If you would like any further information or to cancel your appointment, please contact the Cardiorespiratory and Vascular Department, Clinic 4 at King's Mill Hospital on 01623 672259.

### **Source of information**

[1] Pharmacological Stress Echo [PIL - Pharmacological stress echocardiography \(bsecho.org\)](http://bsecho.org) British Society of Echocardiography

### **Further sources of information**

NHS Choices: [www.nhs.uk/conditions](http://www.nhs.uk/conditions)

Our website: [www.sfh-tr.nhs.uk](http://www.sfh-tr.nhs.uk)

### **Patient Experience Team (PET)**

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

**King's Mill Hospital:** 01623 672222

**Newark Hospital:** 01636 685692

**Email:** [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net)

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email [sfh-tr.PET@nhs.net](mailto:sfh-tr.PET@nhs.net).

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