

Dobutamine Stress Echocardiogram (DSE)

What is a Dobutamine Stress Echocardiogram (DSE)?

DSE is a diagnostic procedure, which combines the use of:

- a) An ultrasound heart scan called echocardiography.
- b) A stress test of the heart designed to be similar to normal exercise.

Since many patients find exercise difficult, we use a drug called Dobutamine, which increases the heart rate and the force of its contractions in a similar way to that of exercise.

What are the benefits of having a DSE?

This procedure will allow your cardiologist to assess the function of your heart muscle and whether it receives an adequate blood supply under stress.

It is commonly used in patients who cannot perform the standard treadmill exercise test e.g. due to painful knees, asthma, being overweight.

DSE is also useful in assessing whether certain parts of the heart are permanently damaged after a heart attack or whether some recovery is possible. In this way, the test may assist in your further management.

What are the risks of having a DSE?

Dobutamine stress echocardiography is now a routine cardiac test. The use...

of ultrasound for scanning is very safe and there are no known risks associated with it.

Dobutamine is generally well tolerated but it may occasionally cause short-lived heart rhythm problems (arrhythmia), chest pain or general discomfort.

As the test is performed on patients with suspected or existing coronary artery disease, there is a very small possibility of a cardiac event such as unstable angina or a heart attack. The likelihood of serious side effect is however very low and there is a large worldwide experience with DSE proving its safety.

Is there an alternative procedure available?

Similar information could be obtained by a heart scan using a radioactive dye. However, the DSE has the advantage of being simpler to perform and providing more comprehensive information about the heart.

Preparation for DSE

You do not need to wear any special clothes since exercise is not involved. Instead, you will be given medication through a drip infusion into an arm vein.

- Do not eat a heavy meal before the test – a light meal e.g. tea and toast is okay.
- Do not have any alcohol for at least 12 hours before test.

- You may have been asked to stop taking some of your medication e.g. beta-blocker for 24/48hrs before the test – you may continue with your medication as soon as the test is over.

You should check with your doctor or contact the Cardiology Labs on 0151 - 529 – 2700 if you are unsure whether you need to stop some or all your regular medication before the study. It is normal to stop some drugs such as beta-blockers 24-48 hours before the test.

How is a DSE performed?

The test takes place as an outpatient in the Cardiology Labs and lasts about 40 to 60 minutes in all.

During the procedure you will be looked after by a team, which may include a Cardiologist, Specialist Nurse and a Sonographer.

You will be assisted to lie on a couch. A small plastic tube will be inserted into a vein in your hand or arm before the procedure. This is for the infusion (drip). A probe will be positioned over your chest to obtain heart images to be seen on the machine screen.

You will have some electrodes placed on your chest to allow your DSE team to monitor your heart rate and rhythm. The Dobutamine infusion will be administered through a controlled drip infusion system.

The rate of the infusion will be increased until your target heart rate is reached, but it will be stopped if you begin to experience significant chest pain or breathlessness.

After stopping the infusion, the drug effects will start to reduce immediately and will completely resolve in about 15 minutes or less.

During the test you may experience fast and bounding heart beats. This is an expected response and you should not be unduly alarmed.

Further images of your heart will be scanned at different stages of the procedure and during recovery, so that a comparison can be made between them.

What happens after the test?

As soon as the team is satisfied that all the effects of the drug have worn off, you will be directed to a waiting area for about 10 to 15 minutes to ensure no lasting effects. After which you can go home alone, without the need for an escort, and resume your regular activities.

The results of your test will be analysed by one of our specialists and then sent to the doctor who requested the scan.

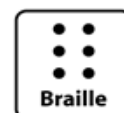
Patient Chaperones

Unfortunately for safety reasons we cannot allow a relative or friend to act as a chaperone for a Dobutamine Stress Echocardiogram however; if facilities and personnel allow, a chaperone may be provided on request.

Please inform our reception staff if you feel you may require a chaperone to accompany you during your procedure.

Further Information

If you have any questions or require any further information about the above procedure please contact the Lead Cardiac Physiologist on 0151 - 529 - 2700.



If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

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