

## Dobutamine Stress Echocardiogram

### What is a stress echo?

An echocardiogram or 'echo' is a painless scan that uses ultrasound (sound waves) to produce pictures of the heart. A stress echo involves making the heart work harder, either with physical exercise or using medication, and taking echo pictures to look at how the function of the heart changes during stress.

In attendance will be a doctor and / or 1 or 2 cardiac physiologists and a nurse.

You will be taken into the echo room and asked to remove your top clothing and put on a hospital gown. Your height and weight will be measured. Stickers will be attached to your chest to monitor your heart rate and rhythm. You will also need to have a cannula (drip) inserted into a vein in your arm in order to give medication and/or contrast during the test.

You will then be asked to lie on the echo bed on your left side and the physiologist will take some pictures of your heart using an ultrasound probe with some cool gel on your chest. It may also be necessary to use an intravenous contrast agent to get clear pictures of the heart. During the scan, the room will be darkened so that the echo pictures can be seen more clearly.

After the initial sets of pictures have been taken, the stress medicine (Dobutamine) will be started. Every few minutes the dose will be increased, in order to mimic increasing exercise and stimulate your heart to beat stronger and faster. Sometimes a second medicine called Atropine is used to help increase the heart rate to the target level. Your heart rate will be continuously monitored throughout the test. Your blood pressure will also be measured at intervals during the test.

When your heart rate has reached its target and all the required pictures have been obtained the medication will be stopped and you will then be monitored until your heart rate has returned to normal. The cannula and all monitoring equipment will be removed.

If the doctor is available, he will tell you the result. Otherwise, it will be sent to you and your GP shortly after the test.

### Why would I need this procedure?

Stress echocardiography is often used for the investigation of possible angina (chest pain due to coronary heart disease), looking to see whether there is an adequate supply of blood to the heart muscle at rest and during stress. The test helps your doctor make the diagnosis, and decide what treatment or intervention is required. It can also be used to assess certain heart valve problems.

### What are the symptoms that have led to me having this procedure?

You may have experienced chest pains, breathlessness or have problems with your heart valves.

## What are the alternatives?

Other imaging investigations are available for example: CT, MRI or nuclear imaging but your doctor has decided that this test is appropriate for you

## What are the potential risks and side effects?

Stress echocardiography is an extremely safe procedure but there are some risks that you need to be aware of.

Rarely (around 1 in 1000 patients), the stress medicine can cause the heart to develop an abnormal rhythm. This usually settles when the medicine is stopped, but sometimes requires additional treatment. There is a very small risk (less than 1 in 2000) of a bad angina attack or heart attack during the test.

There is an extremely small risk (less than 1 in 10,000) of developing an allergic reaction to the contrast agent (if used). If you are allergic to any medicines, please inform the doctor before the test begins.

You may not have any symptoms at all during the test, but it is common to feel a tingling sensation in your scalp/head/neck, and to be aware of your heart beating stronger and faster. Sometimes the medicine can make you feel dizzy or sick. These symptoms resolve quickly when the infusion is stopped.

## What are the expected benefits of treatment?

This is a diagnostic test not a treatment but the information obtained will help your doctor plan your future treatment.

## What should I do before I come into hospital?

**\*\*You must stop taking any beta-blocker tablets for 48 hours (2 days) before the test\*\***

For example, if your test is on a Monday then take the last tablet on a Friday.

Beta Blockers include: **Atenolol (Tenormin, Co-tenidone), Bisoprolol (Cardicor), Carvedilol, Metoprolol, Nebivolol and Propanolol**

We would also recommend that certain **Calcium Channel Blockers** should also be stopped for 48 hours prior to the test. These include **Diltiazem (Tildiem, Adizem) and Verapamil (Securon)**.

You should continue all your other medications as usual.

We advise you not to eat anything for a couple of hours before the test.

## Where will the procedure take place?

The procedure is performed in the Cardiology Department which is on Level 3 of the Medical Block, opposite Berwick ward.

## How long will I be in hospital?

After the test you will be asked to sit in the waiting room for 15 minutes to make sure you have fully recovered before you go home.

## What should I do when I go home?

We advise, if possible, you not to drive on the day of the procedure and to avoid any drinks containing caffeine for the rest of the day.

## Consent

Although you consent for this treatment, you may at any time after that withdraw such consent. Please discuss this with your medical team.

## Sources of information

Cardiology Department - Tel: 0300 131 4500 Ext: 143801.

## Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

## Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team - Tel: 0300 131 4731 or by email at: [esh-tr.patientexperience@nhs.net](mailto:esh-tr.patientexperience@nhs.net)

## Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

## Other formats

**If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.**

**Tel: 0300 131 4500 - Email: [esh-tr.AccessibleInformation@nhs.net](mailto:esh-tr.AccessibleInformation@nhs.net)**

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

## Reference

The following Clinicians have been consulted and agreed this patient information:  
Dr Andrew Marshall: Consultant Cardiologist.

Next Review date: June 2023  
Responsible clinician/author: Lesley Hart: Highly Specialist Clinical Physiologist