

Patient information factsheet

Stress echocardiogram

This leaflet provides information about your forthcoming appointment so that you know exactly what to expect.

A stress echocardiogram or 'stress echo' is a test we use frequently to diagnose and assess angina (a pain associated with coronary artery disease). It does this by looking to see whether there is an adequate blood supply to your heart muscle when your heart rate is increased. We also occasionally use stress echocardiograms to assess other conditions such as valvular heart disease.

Preparing for your test

You must not eat anything or smoke for two hours before the test. You can drink as normal. You'll need to wear clothes and footwear suitable for doing exercise and bring a list of your current medication with you to your appointment.

The following medication should be stopped 48 hours prior to your appointment (so for example if your test is on a Thursday you should not take this medication on the Tuesday, Wednesday or Thursday):

Bisoprolol
Atenolol
Metoprolol
Nebivolol
Carvedilol
Diltiazem (may be branded as Slozem, Tildiem or Dilzem)
Verapamil
Ivabradine
Isosorbide mononitrate
Ranolazine
Nicorandil

Important: If you have atrial fibrillation (AF), please only stop the medication on the list on the day of your appointment.

Continue any other medication as normal.

At the appointment

A doctor or sonographer (qualified specialist who operates ultrasound equipment) will perform this test with the assistance of a physiologist or a nurse. You will be asked to undress to the waist and put on a gown that should be left open at the front. We'll attach stickers to your chest, which will be connected to the machine, and these will monitor your heart rate during the test. Some men may need to have a small area of their chest shaved in order for the electrodes to stick to the skin.

For the first part of the test we'll use sound waves (ultrasound) to produce pictures of your heart, which is painless. For this part of the test you will be asked to lie on a couch on your left hand side and the lights will be dimmed to make it easier to see the images of your heart. An ultrasound probe covered by a small amount of gel is placed gently on the centre of your chest and will be moved to different positions

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throughout the test – including beneath the left breast. This enables us to see images of your heart from a number of different angles, which are then recorded. Occasionally a special dye is used to help us see the heart more clearly in the ultrasound pictures. We will use a small needle to insert the dye into one of the veins in your arm. The dye is very safe.

The next part of the test is designed to increase your heart rate. This will be done in one of two ways.

1. If you can walk easily, you will be asked to walk on a treadmill which begins at a gentle speed and incline. Throughout the test the speed and the incline of the treadmill are gradually increased. You will be encouraged to walk for as long as you can, but there is no set end point to the test.
2. If you have difficulty walking then you may be given a medication called Dobutamine to increase your heart rate. In this case a small needle will be inserted into one of the veins in your arm and the medication given via a drip. Usually the medication is given for ten to fifteen minutes, but the exact amount of time depends on how your heart rate responds. Dobutamine can make you feel hot and flushed as your heart rate increases whilst you're lying still. We'll closely monitor you throughout the test and as soon as the medication is stopped any symptoms you may experience will wear off very quickly.

When your heart rate is increased to a satisfactory level, either by exercise or medication, the ultrasound scan of your heart will be repeated. Both sets of pictures are then compared. We recommend that you remain in the department waiting room for 20 to 30 minutes after the test to allow yourself time to fully recover.

The risks

This test is very safe and there are usually no problems. There is a small risk of an abnormal heartbeat, chest pain or nausea and, if this happens, the appropriate action will be taken. On very rare occasions (approximately 1 in 2000) the test is associated with life-threatening events. If you have any questions about the risks associated with the procedure, your medical team will be able to discuss them with you at the appointment.

Your results

Your results will be sent to the doctor who requested the test, which may be your GP or a hospital consultant. You may be given the results of this test during your next clinic appointment with your hospital consultant. Alternatively the results may be sent back directly to your GP. If you are unsure please ask during your appointment.

Further information

If you need help getting to your appointment please contact your GP surgery so they can arrange hospital transportation for you.

If you would like further information please contact the non-invasive cardiology department on **023 8120 6404**. Alternatively you can visit our website at **www.uhs.nhs.uk** and search for 'non-invasive cardiology'.

For a translation of this document, or a version in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email patientsupport@uhs.nhs.uk

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