

Stress echocardiography (echo)

Information for patients



You have been asked to come to the echocardiography department for a stress echocardiography (echo). This is an ultrasound scan of your heart which is performed while your heart rate is increased using specific medicines. Your heart rate will be increased to a level that someone of your age would be expected to be able to reach comfortably if they were doing some exercise.

An ultrasound scan uses a hand-held probe and sound waves to create an image on a screen. We will put a special gel on the probe and will gently roll this over the skin on your chest.

A stress echocardiogram gives us information about the performance of your heart under stress. It helps your doctors to identify symptoms you may have on exertion (e.g. when you have been exercising) and the reasons for these symptoms. This test is performed both at the John Radcliffe Hospital and Horton General Hospital.

You will need to bring someone with you to the appointment, as you may feel tired after the test and need someone to drive you home. We will not discharge you until we are happy that you have completely recovered from the test.

Before the procedure

- If you take a beta blocker such as atenolol, propranolol, carvedilol, sotalol or bisoprolol, please do not take this the day before or on the day of the test. This is because the medication slows your heart rate down and may make it more difficult for us to increase your heart rate during the test. However, **please bring this medication with you**, in case the doctor decides you need to take it after the test has been completed.
- Please continue to take all your other medications as usual before your appointment.
- Please bring all your medications (or a prescription list) with you.

You will be seen by the doctor, who will check your medical history and explain the procedure to you. You will then be asked to sign a consent form.

If you have any concerns, please do not hesitate to ask, as we want to make sure you fully understand the test and why it is being done.

What happens during the procedure?

The procedure takes place in the echocardiography department. You will be asked to remove your clothes from your upper body and put on a hospital gown.

The doctor will insert a small tube (a cannula) into a vein in your arm, so that we can give you medicines during the procedure.

A blood pressure cuff will be attached to your arm to monitor your blood pressure and we will place ECG (electrocardiogram) stickers onto your chest.

You will then be asked to lie down on a couch on your left side and we will start the ultrasound scan of your heart.

As the ultrasound scan is being performed we will start to give you the medicine dobutamine, which will increase your heart rate. We will gradually increase the dose until your heart rate reaches a planned level. We may also give you an injection or contrast (dye), which improves the image/picture quality. Both of these will be given through the cannula.

Your heart will be monitored and we may give you additional medicines (such as atropine) or ask you to do additional tasks (such as moving your arms) to help your heart rate reach the planned level. If you get any symptoms during the test, or the doctor sees any problems on the ultrasound scan, the test can be stopped early. The doctor can also give you a drug (metoprolol) to slow your heart down, if needed.

The doctor will carry out the ultrasound with help from a technician or a second doctor.

The procedure takes 30-40 minutes, as we need to examine all the areas of your heart.

When all the ultrasound information has been collected the medications will be stopped and your heart rate will come down quickly.

What happens after the procedure?

After the procedure you will be asked to stay in the waiting area for around 30-45 minutes. This is to allow the medicines to completely clear from your body. Your cannula will then be removed and you will be able to go home.

A letter with the results of your investigation will be sent to the doctor who referred you.

Will I be aware of anything during the stress echo?

The investigation should not be uncomfortable. You may have some mild symptoms during the test, such as palpitations (a feeling of strong or fast heartbeats), tremor (a trembling in one or more limbs), and a feeling of light-headedness.

Benefits

The benefits of stress echocardiography are that it can:

- help us to find out what is causing any symptoms coming from your heart
- show us how well the pumping function of your heart muscle and coronary arteries are working
- help the doctors to decide which further diagnostic procedures or treatment you may need.

Risks

Serious risks are very rare; affecting less than 0.3% (1 in 330 patients). They include heart rhythm problems, heart attack and low blood pressure. If any of these were to occur, they would be treated by the team looking after you.

Your doctor will have recommended that you have a stress echocardiogram as they feel that the benefits of the procedure outweigh the risks. The figures quoted in this document are average figures for all cases. Your cardiologist will discuss with you any specific risks before the procedure.

Alternatives

Your doctors have recommended that this is the most appropriate investigation for your condition. If you wish to discuss alternatives, please talk to the doctor before you sign the consent form.

How to contact us

Echocardiography Patient Administrator

Tel: 01865 572 879

(Monday to Friday, 9.00 to 5.00pm)

Echo Department (John Radcliffe Hospital)

Tel: 01865 234 350 or 01865 234 366

(Monday to Friday, 9.00 to 5.00pm)

Echo Department (Horton General Hospital)

Cardiac Physiology Department

Tel: 01295 229 765

(Monday to Friday, 9.00 to 5.00pm)

Further information

For further information the following websites are recommended:

British Heart Foundation

Website: www.bhf.org.uk

British Society of Echocardiography

Website: www.bsecho.org/education/patient-information/

Please note:

The department where your procedure will take place regularly has professional observers. The majority of these observers are health care professionals, qualified or in training, and on occasions specialist company representatives. If you do not wish observers to be present during your procedure please tell a doctor or nurse.

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

Approved by: Cardiac Directorate
September 2016
Review: September 2019
Oxford University Hospitals NHS Foundation Trust
Oxford OX3 9DU
www.ouh.nhs.uk/information

