

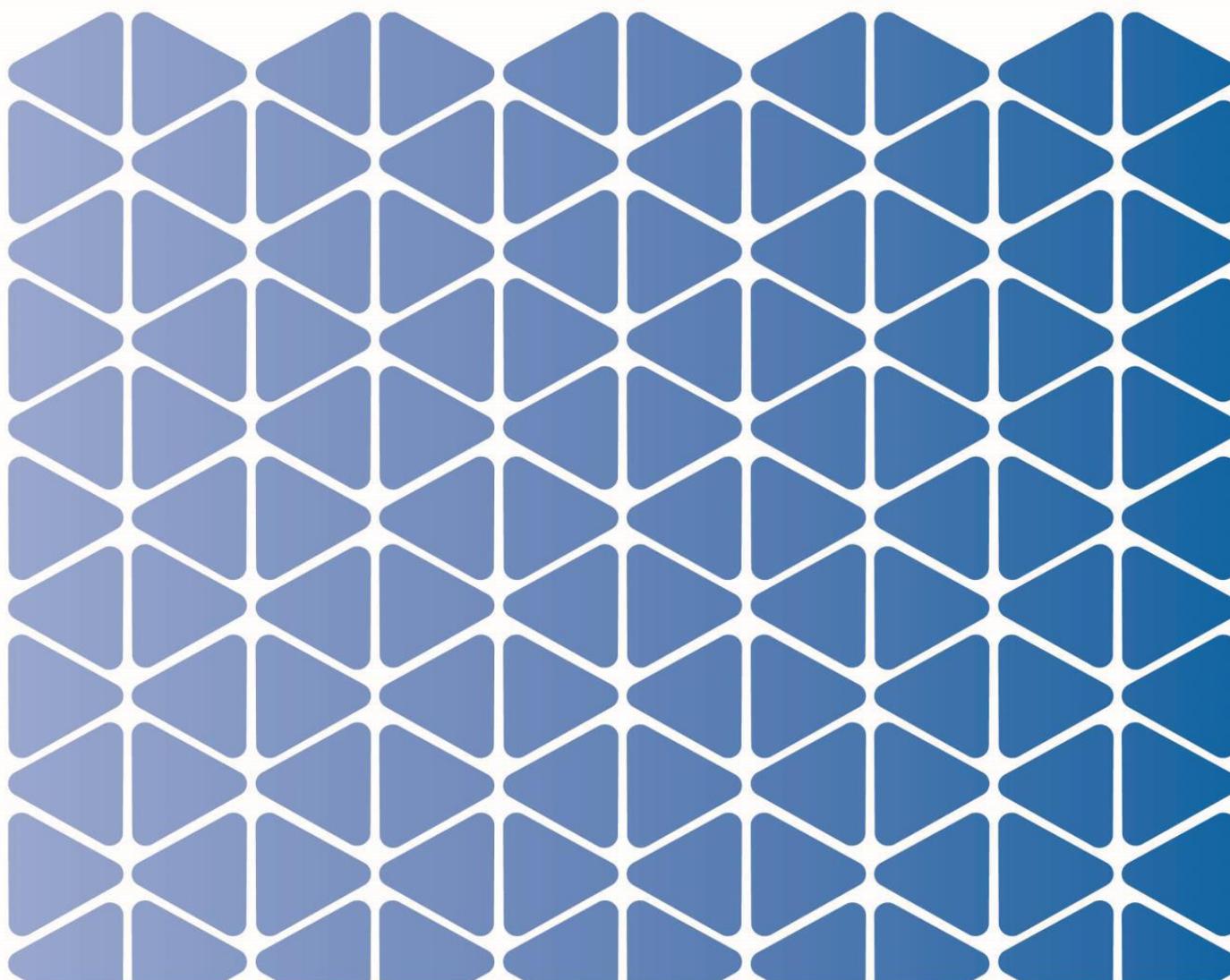


NHS

**Worcestershire
Acute Hospitals**
NHS Trust

PATIENT INFORMATION

STRESS ECHOCARDIOGRAPHY



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What is a Stress Echocardiogram?

- An echocardiogram or 'echo' is a scan that uses ultrasound (sound waves) to produce pictures of the heart. The test is painless and does not use radioactivity.
- There are **2 options** to stress the heart with either **medication** (*normally a drug called Dobutamine*) or with **exercise**, both methods make the heart work harder. The doctor will discuss the best option depending on the question they are being asked by the referring clinician.
- During a **Dobutamine Stress Echo**, your Doctor will give you some medicine to make the heart beat harder and faster whilst pictures are taken of your heart.
- During an **Exercise Stress Echo**, your Doctor will ask you to use an exercise bike whilst pictures are taken of your heart.

Why is it being done?

- A Stress Echo is performed as it allows your Doctor to understand how the heart copes when it is made to work harder.
- A Stress Echo is useful to diagnose and assess many heart conditions, including angina, heart muscle conditions (e.g. cardiomyopathy) and heart valve disease.

What does the 'stress echo' involve?

- You will arrive and wait in the waiting area.
- The doctor will talk to you about what exactly to expect and why we are doing the test. The doctor will then 'consent' you for the test.
- You will have a small plastic tube (cannula) inserted into one of the veins in your arm. This may be used for the injection of the ultrasound enhancing agent (called SonoVue®) – which can help improve the image quality. The cannula will definitely be used for a **Dobutamine Stress Echo** to run the drug into your body.
- You will be asked to undress to the waist but you will be offered a hospital gown to wear. The gown should be left open to the front (like a coat).
- You will be taken into a room with usually a doctor and a sonographer.
- You will be asked to lie on a couch for **Dobutamine Stress Echo**. You will then be asked to lie on your left-hand side. If you are unable to lie on your left side, we can carry out the echo while you are lying on your back.
- If you are having an **Exercise Stress Echo** you will be sitting on the exercise bike.
- For both stress echos; ECG stickers will be attached to your chest and connected to the echocardiogram machine. A blood pressure cuff will also be attached. This will monitor your heart rate and rhythm and blood pressure during the test.

- The test is performed in semi-darkness so the lights will be dimmed once you are comfortable.
- The sonographer will place the echocardiogram probe on your chest (this is like a thick blunt pen) and cold lubricating jelly (this helps to get good contact with the skin).

For a **Dobutamine Stress Echo**, the medicine (Dobutamine) will be infused via a drip in your arm, which makes the heart work harder. Whilst this is happening the Sonographer will take pictures of your heart using an ultrasound probe gently placed on your chest.

During the test the Doctor may also inject an ultrasound enhancing agent into the drip in your arm. This helps to improve the quality of the pictures that are being recorded.

For an **Exercise Stress Echo**, initial pictures are taken by the sonographer applying the probe and jelly to the chest wall. An ultrasound enhancing agent may need to be used to get better pictures. You will then be asked to exercise, riding an exercise bike. The exercise will be gentle at first but will get progressively more strenuous. Occasionally the Sonographer may record pictures of your heart whilst you are exercising.

When the Doctor has decided that you have performed enough exercise, or if you are unable to continue, the Doctor will ask you to stop, but you may need more pictures to be taken. You will continue to have your heart rate and blood pressure monitored until you have fully recovered, which may take several minutes.

- The doctor and sonographer may discuss the images during the test to make sure that they are happy and that they have enough information before deciding that the test is at an end.
- The test will take approximately 45 minutes to complete.

Are there any special precautions that I need to take before the stress echo?

- You must **NOT** take **beta-blocker** or **calcium-channel blocker** tablets for **48 hours before the test**. Beta-blocker tablets include Atenolol, Bisoprolol and Carvedilol, although there are others. Calcium-channel blockers are called Diltiazem and Verapamil. These tablets prevent the stress medicine from making the heart work harder. If you do continue with beta-blocker or calcium-channel blocker drugs, the Stress Echo may need to be postponed.
- If you have any doubts, please contact your Doctors' secretary or this unit. You should continue other medications as usual.
- You must **NOT** eat for two hours before the test, but you may drink water.

- We ask you to come in comfortable clothes and trainers or running shoes, to make performing an **exercise stress echo** easier (we may not know which you are having until the day).

At the end of your stress echo what happens?

- After the echo you will occasionally be asked just to sit for 15 minutes to make sure the effects of the stress medicine have completely worn off.
- The cannula will be taken out of your arm.
- You will be able to return home after this. It is advisable that you do not drive yourself for the remainder of the day, so you may need a friend or relative to transport you.
- We recommend not operating heavy machinery for 24 hours.
- If you are given a drug called Atropine during the test, you **CANNOT** drive for 24 hours.
- You can take all your normal medication later that day / the next day, as you normally would.
- You will not be given the results immediately as a period of interpretation is required. The results will be sent back to the requesting doctor or healthcare professional.

Will I be aware of anything during the stress echo?

In the **Dobutamine Stress Echo**, the medicine will make your heart beat harder and faster, which you may notice. Occasionally the stress medicine may make you feel sick or dizzy. You may also get pins and needles in the top of your head, which resolves on its own. Let your Doctor know of any symptoms you are aware of. Once the stress medicine is stopped, you will feel back to normal very quickly.

In the **Exercise Stress Echo**, you may feel your heart racing. You may also feel tiredness (especially in your legs) and breathlessness. Once you stop the exercise these symptoms should resolve. Let your Doctor know of any symptoms you are aware of.

Are there any risks in having the exercise echo?

A Stress Echo scan is extremely safe, but there are some risks you need to be aware of. For both **Dobutamine and Exercise Stress Echo** we may use medications and ultrasound enhancing agents, if we do this there is an extremely small risk (less than 1 in 10,000) of developing an allergic reaction to one of the medicines used. If you have had allergic reactions to any medicine before, please inform your Doctor before starting the test.

For **Dobutamine Stress Echo**, there rarely (around 1 in 1000 patients), the stress medicine may make the heart develop an abnormal rhythm. If this occurs, it will often settle down by simply stopping the stress medicine, but occasionally you may need additional treatment for this. There is also a very small risk (less than 1 in 2000) of a bad angina attack or heart attack occurring during the test.

For an **Exercise Stress Echo**, there is a very small risk (less than 1 in 2000) of a bad angina attack or heart attack occurring during the test.

Contact information

If you have any questions about your planned contrast echocardiogram, please contact your consultant's secretary or:

Cardiology Investigations Department

01905 763333

Further information

Patient

Website: www.patient.co.uk/health/echocardiogram

If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.

Patient Experience

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

Feedback

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

Patient Advice and Liaison Service (PALS)

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

How to contact PALS:

Telephone Patient Services: 0300 123 1732 or via email at: wah-tr.PALS@nhs.net

Opening times:

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.