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NHS Foundation Trust

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What is a transthoracic echocardiogram?

A transthoracic echocardiogram is a painless scan of the heart using high frequency sound waves to obtain pictures of the heart in a non-invasive manner.

The pictures are obtained by placing a jelly covered transducer (a small probe) on various positions of the left side of your chest whilst acquiring information on the ultrasound machine.

What is the purpose of having an echo?

There are many reasons why your doctor may ask for you to have an echo. These would include: palpitations, irregular heart rhythm, having a heart murmur, after a heart attack, before having chemotherapy or surgery, following a stroke and angina.

What happens during an echo?

You will be asked to undress from the waist upwards so that we can access your chest for the scan – a gown will be provided for you to wear. You will then be asked to lie on a couch on your left side. Your heart rate will be monitored through three electrodes placed on your chest.

The lights in the room will be lowered and a sonographer will gain images of your heart by placing a transducer on different parts of your chest and acquiring images on the ultrasound machine.

Occasionally you may be asked to change position or hold your breath during the scan in order to obtain the best images.

How long does the test take?

The test takes between 30mins and one hour depending on the image quality and the information needed by the doctor.

Are there any risks?

A transthoracic echo is completely pain free and harmless. There are no associated risks with having this procedure performed.

Are there any alternatives?

There are alternative tests that can be performed to obtain some of the information gained in a TTE.

These are invasive procedures where a patient would have to be injected with a solution in order to assess the function of the heart.

These alternative procedures do not provide the doctors with all the information that may be required for a patient and are therefore unsuitable for some people.

What will happen if I don't have the test?

If you choose not to have this test, your referring doctor may be unable to find a cause for your symptoms or assess for damage to your heart muscle caused by angina or previous heart attacks.

This will mean that your doctor cannot adequately treat you and your symptoms may persist. Your TTE may, and frequently will, form part of a series of tests.

Some of these other tests require the TTE as a pre-requisite. If you do not have this TTE it will affect your eligibility for the rest of them.

What happens after the test?

When the scan has been completed you are free to go home and the results of the test will be sent to your referring doctor who will then write to you or arrange an appointment to see you in clinic.

Patient Chaperones

If you feel that you require a chaperone to accompany you during your procedure you may bring one relative or one friend into the room with you if preferred.

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:

Tel No: 0151 529 2906

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