

Exercise Stress Echocardiogram (Stress Echo)

What is a stress echo?

A stress echo is a test which involves the examination of your heart before and after exercise. It is different to an Exercise Stress Test in that it gives the doctor more information about your heart function by assessing both ultrasound images as well as the electrocardiogram (ECG).

Why would I need a stress echo?

A stress echo identifies areas of your heart where there may be a reduced blood supply through the coronary arteries to the heart muscle, or a decrease in cardiac function due to underlying disease or a heart attack. This helps a cardiologist diagnose a variety of heart conditions, including coronary artery disease, heart valve disease, and heart failure. It can also help determine the severity of these conditions and guide treatment decisions.

What happens during a stress echo?

During the first stage of a stress echo, a Cardiac Sonographer will perform an ECG which will stay in place throughout the test. They will then perform an echocardiogram, which is a non-invasive, ultrasound examination of your heart. This will assess the function of your heart at rest and ensure that there is nothing stopping you from exercising in the second phase of the test.

You will be asked to lie on your left-hand side for the majority of the test and a transducer will be placed on your chest to take the first set of ultrasound images. Ultrasound gel is used to improve contact and imaging quality.

During the second stage of a stress echo, your heart is exercised or 'stressed' by walking on a treadmill. The speed and slope of the treadmill will increase every few minutes according to your fitness level to make your heart work harder.

When your heart is working as hard as possible, you will stop exercising and quickly lie down on the bed. Another echocardiogram will be performed while your heart rate remains elevated.

A cardiologist will be present throughout the second stage of the test. They will monitor your blood pressure and ECG closely throughout.

How do I prepare for a stress echo?

As you will be exercising on a treadmill, we advise that you to wear suitable clothing and footwear.

You may eat and drink the day of your test but please cease food or drink (except water) 2 hours prior to your test. Avoid consuming any caffeine or caffeinated products on the day of the test, this includes but not limited to coffee, tea, high sugary drinks i.e. cola, energy

drinks, and chocolate products. Avoid smoking cigarettes on the day prior to your test. Both caffeine and nicotine will interfere with the results of your test.

What are the risks with a stress echo?

A stress echo is a low-risk procedure, and the risks are no different to those of a standard Exercise Stress Test. Some patients may experience mild angina, shortness of breath, or musculoskeletal discomfort. There is a very small chance (less than 1%) of having a heart attack or dying during the test.

If you have a history of previous/recent heart attack, aortic dissection, recent fluid or clots in the lungs, severe heart valve disease, heart arrhythmias, palpitations, or recent increase in chest pain, you should advise the staff before you commence the test.

During a stress echo it is normal for your heart rate, blood pressure and breathing rate to increase. When you stop exercising suddenly, it is also normal to feel a little unsteady when getting off the treadmill and onto the exam table for the echocardiogram.

Your doctor will stop the test should you have any symptoms such as chest pain, if you become very short of breath, or when you cannot walk/run any further.

