

FREQUENTLY ASKED QUESTIONS ABOUT EXERCISE STRESS ECHOCARDIOGRAPHY

Q: What is a Stress Echo?

A: An Exercise Stress Echocardiogram, sometimes called a stress echo, is a tool used to evaluate heart function by combining an exercise (stress) test with a transthoracic echocardiogram. A stress echocardiogram uses ultrasound waves to produce images of the heart both before (sometimes during) and immediately following exercise. Images of the heart at rest are compared with images of the heart during and/or after exercise to evaluate how the heart responds to exercise.

In North America the test is performed by a specially trained technologist, called a sonographer, and is interpreted by a physician trained in reading stress echocardiograms. During the exercise portion of the exam there will be a medical staff member, usually a physician, supervising the examination and there is sometimes a third person assisting.

Patients that have physical limitations that cause them to be unable to exercise may be given a pharmacologic stress echocardiogram instead of an exercise stress echocardiogram.

Q: Why has my doctor requested that I have a stress echocardiogram?

A: If you are going to have a stress echocardiogram, it is more than likely that it has been requested or ordered by your physician or cardiologist. A stress echocardiogram is most often requested to check for good blood flow to the heart. An ECG may help to provide an early detection of coronary artery blockage.

Q: What must I do to prepare for an echocardiogram?

A: Your doctor and/or the laboratory where you will have the stress echocardiogram performed will provide you with written instructions to help you to prepare for the test. You may be asked to refrain from eating and drinking for a few hours before the stress echocardiogram and you may also be asked to limit your drinking to water and other caffeine free drinks for up to 24 hours before the test. You may be asked to temporarily hold off on taking some medications. You may also be asked to stop using tobacco products for a few hours before the test.

You should bring or wear comfortable walking shoes and wear suitable (warm-ups/loose fitting clothes) for the test. It is very important that you check with your doctor and/or the stress echocardiography laboratory staff a few days before your stress echocardiogram for any specific instructions. You should plan on being at the echocardiography lab for anywhere from one to two hours.

Q: What should I expect while at the exam?

A: Upon arrival at the lab you will be greeted by our staff. We may need to obtain some insurance information from you. You will be asked to register and may also be requested to provide a prescription or order for your examination.

After processing these items, we will then escort you into an examination room. The room will have a special examination table and ECG machine, an ultrasound machine and a treadmill (or sometimes a stationary bicycle).

You may be asked a few questions by the sonographer who will want to know why you are having the test, if you have had any previous stress echocardiograms, and if you have ever had open heart surgery. Usually he/she will give you an explanation of the procedure also.

You will then be asked to remove your clothing from the waist up. Women will be asked to leave their bra on and will be given a gown to wear.

A staff member will attach ECG lead wires to electrodes attached to your chest with simple medical tape. To ensure the ECG lead wires stay attached while you exercise, we will clean your skin and prepare it for the electrodes. For men, it may be necessary to shave small areas of chest hair.

A blood pressure cuff will be placed on your arm before you begin to exercise.

You may be asked to have an intravenous line (IV) started so that a special echocardiographic contrast material can be used to enhance the ultrasound pictures. The lab performing the exam will explain this procedure if they feel it will be beneficial.

The sonographer will obtain resting images before you begin to exercise.

The lights will be dimmed to allow the sonographer to see the monitor better.

You will be asked to lie on the bed on your left side.

The sonographer will apply ultrasound gel to a transducer. The transducer is a wand-like device that sends and receives the harmless ultrasound waves. The gel allows the ultrasound beams to penetrate your chest wall to your heart and makes it possible to “see” the heart.

The sonographer will then begin to acquire ultrasound images by methodically and precisely moving the transducer around on your chest and abdomen. The sonographer will be viewing these images on a monitor and will take various recordings at several different locations or “views”. During the recording you may be asked to change your position and to hold your breath. These variations in position and breathing allow the sonographer to obtain the best quality pictures possible. The sonographer will press the transducer against your skin and this pressure may be moderate at times to facilitate the transmission of ultrasound waves. If it becomes too uncomfortable, please let the sonographer know and he/she will let you take a short break. After the sonographer has obtained all of the resting images, the exercise portion of the exam will begin.

ECG and blood pressure readings will be taken before exercise begins and throughout the exercise portion of the test.

Usually exercise is performed on a treadmill, or less commonly, on a stationary bicycle. When using the treadmill, the treadmill will begin at a slow, warm-up speed. The speed and the incline (or slope) of the treadmill will be increased every few minutes throughout the test.

The test is most useful if your target heart rate is reached before exercise is stopped so your doctor will want you to exercise as long as you can. Exercise will usually continue until your target heart rate is reached unless you experience difficulty breathing, or other show other symptoms, and we will immediately stop.

IT IS IMPORTANT THAT YOU IMMEDIATELY LET US KNOW IF YOU EXPERIENCE ANY CHEST PAIN, SEVERE SHORTNESS OF BREATH, DIZZINESS, OR OTHER SYMPTOMS DURING THE EXAM.

More images of your heart will be obtained immediately after exercise is stopped (if you exercise on a stationary bicycle images may also be obtained during exercise).

After the treadmill is stopped, you will be escorted very quickly back onto the bed, and asked to lie on your left side. It is important that you are positioned on the bed very quickly so that we can capture images of your heart while your heart rate is still high.

The sonographer will obtain another set of images so that the resting images before you began exercise can be compared to the images of your heart when it is under stress (immediately after you have exercised).

You will be asked to remain on the bed until your heart rate has slowed. If you experience any symptoms during this time or at any other time, you should report them immediately to our staff.

We will record the resting and exercise images of the exam on a video tape and/or computer disk for later review and analysis by a cardiologist, who is a physician in specially-trained reading and interpreting ultrasound images.

Q: What happens after the exam?

A: Following the recording of the images, the sonographer will remove the blood pressure monitoring cuff from your arm and the ECG electrodes from your chest, will wipe off the ultrasound gel, will help you off of the bed and will escort you out of the lab.

The ultrasound images will be interpreted by the Cardiologist (this may be the physician that was present during the stress echo). He or she will interpret the stress echocardiogram and will provide your general physician with a written report. Sometimes the physician present during your stress echocardiogram will be able to tell you his or her preliminary findings although this immediate feedback varies depending on individual circumstances.

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