Patient Information Leaflet

Dobutamine Stress Echocardiogram

What is it?

- 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.
- During a Dobutamine Stress Echo, you will be given some special medicine into the veins (dobutamine +/- atropine) to make the heart beat harder and faster while pictures are taken of your heart.

Why is it being done?

- A Dobutamine Stress Echo is performed as it allows your doctor to understand how the heart copes when it is made to work harder.
- A Dobutamine Stress Echo is useful to diagnose whether you have angina or not, and it can help your doctor to decide how best to treat your coronary heart disease, should you have any. It can also give your doctor information about the severity of a valve problem.

What does it involve?

- You will be taken into a darkened room. Two or three people will usually be present when you have the test – a cardiac physiologist, a nurse and occasionally an assistant.
- You will be asked to undress to the waist and a towel will be provided to cover your top half. You will be asked to lie on a couch on your left-hand side.
- Stickers will be attached to your chest and connected to 2 machines. These will be used to monitor your heart rate. Your blood pressure will also be checked regularly throughout the test.
- A drip will be put in the vein in your arm. A drug called dobutamine will be infused into the drip, which makes the heart work harder. Every three to five minutes (depending on the protocol selected by the doctor), the concentration of the drug will be increased a little, and the cardiac physiologist will take pictures of your heart using an ultrasound probe placed firmly on your chest with the help of a clear water-based gel.
- During the test the nurse may also inject a contrast agent into the drip in your arm. This helps to improve the quality of the pictures that are being recorded.
- Occasionally, if dobutamine does increase the heart rate high enough, we may need to give you a second drug called atropine. We may ask you to perform leg raises and/or squeeze a stress ball.
- When your heart has been made to work hard enough, the final set of images will be taken, and the infusion will be stopped. You will continue to be monitored until the effects of the medicines have worn off, which will take several minutes.
- Overall, the stress echo takes around 45 - 60 minutes to complete

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Patient Information Leaflet

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

- **You must NOT take a beta-blocker or calcium-channel blocker tablets for 48 hours before the test.** You should continue other medications as usual.
    - **Beta-blockers** include Atenolol, Bisoprolol, Carvedilol, Nebivolol, and Sotolol, although there are others.
    - **Calcium-channel blockers** include 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 pharmacy or doctor who ordered the test**.
- **You may not be able to drive home from you test, so we advise everyone to bring some one along who can drive you home.** If given the second drug, it can cause blurred vision and your car insurance will not cover you for 6 hours post procedure.

At the end of your stress echo

- After the echo you will occasionally be asked just to sit quietly for around 30 minutes to make sure the effects of the stress medicine have completely worn off. The drip will then be removed, and you will be able to return home after this. **It is generally advisable that you do not drive yourself for the remainder of the day, so you may need a friend or relative to transport you**.

Will I be aware of anything during the stress echo?

- The stress medicine will make your heart beat harder and faster, which you may notice. You may also be aware of a tightening or pain in your chest, arm or neck. Do not worry about this, but it is important to tell the team, who will be keeping a close eye on you. Additional images will be taken if you experience your symptoms.
- Occasionally, dobutamine may cause flushing/tingling sensation of the head/neck, cold/shaky sensation, thick/muzzy head/dizzy sensation, palpitations, sick sensation/rarely vomiting. Usually go away very quickly once the test is stopped. Let the medical staff know of any symptoms you are aware of.

Are there any risks in having the stress echo?

- A small number of people may experience the following side effects of the dobutamine, such as: flushing of the face, cold/shaky sensation, thick/muzzy head, palpitations as your heart rate increases, nausea and, very rarely, vomiting. All of these side effects usually go away very quickly, once the test is stopped.
- Rarely (around 1 in 1000), 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.
- Very small risk (around 1 in 2000) of a bad angina attack or even heart attack occurring during the test. You will be always monitored during the test and the test can stopped if required.
- Extremely small risk (around 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 the staff before starting the test.**