

Cardiac Diagnostic Services

Dobutamine stress Echocardiogram - (DSE)

What is it?

A treadmill stress echocardiogram (SE) test assesses if you are likely to have significant narrowing's in your heart's coronary arteries. By comparing cardiac ultrasound images of your heart function before and after exercise, the cardiologist can decide whether enough blood is flowing to your heart muscle or if a narrowing is restricting supply.

The Dobutamine Stress Echo (DSE) test was developed for people who are unable to exercise on a treadmill. In this test you will be given dobutamine, a medication that will stimulate your heart and make it perform and feel as though you are actually exercising.

Preparation.

Your doctor may ask you to not take certain medications as some of these can affect the accuracy of the test. In particular, beta-blockers, which act by slowing the heart rate, need to be stopped 36 hours before the test. Information about medications will be provided when you book your appointment.

What should I expect?

You will be given a consent form to read and then sign. The test begins with the sonographer connecting you to an ECG machine, via ECG electrodes placed directly on the chest, so that your heart rate and rhythm can be monitored and recorded. Then, lying on a couch, they will image your heart using an ultrasound transducer. Gel is applied to the transducer, it will feel quite cold to touch but does not harm your skin. The sonographer will press firmly, and may ask you to hold your breath briefly as images are acquired.

The nurse will insert an intravenous (IV) cannula into a vein in your arm to deliver the dobutamine medication directly into your bloodstream. With a Cardiologist present the dobutamine infusion will begin while the sonographer continues to capture ultrasound images. Dobutamine will accelerate your heart rate as if you were exercising. Your blood pressure will be measured periodically. The IV cannula will be removed from your arm once the medication is stopped.

Dobutamine may give you a warm, flushing feeling and some patients experience a mild headache. Throughout the test, we will ask you how you are feeling. It is important to tell the cardiologist of any symptoms you may experience, for example chest pain, arm or jaw pain or if you become short of breath, feel dizzy or light-headed.

- > Test accuracy is 85-90%.
- > Most DSEs take about 60 - 90 minutes.
- > If any symptoms persist after the test please seek advice from the cardiologist.

After the test.

The results are sent to your referring doctor on the same day. It is recommended that the results and what they mean be discussed with your doctor.