



Kawartha Cardiology
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STRESS ECHOCARDIOGRAPHY

This test is done by 2 para – medical staff – one staff, to obtain Echo images, and other staff, to manage the treadmill, or medications and to monitor your ECG and Blood Pressure. You will be asked to sign a consent for this test. The test is indirectly supervised by a physician in close proximity to the testing room. Stress echocardiography, combines stress testing with an echocardiogram (cardiac ultrasound), obtained immediately before and after exercise. Exercise is usually carried out on a treadmill. Alternatively, a bicycle (either upright or lying down) may be used to provide the exercise stress. This measures the pump function of the heart under stress, which can be used to prove or disprove the presence of coronary artery disease, and evaluate the functional significance. Sometimes a medication, **dobutamine**, is used to accelerate the heart rate in patients who are unable to exercise. Echocardiography, is used to measure the pump function of the heart before and during this pharmacologic (medication induced) stress test and identify lack of blood supply to the heart muscle. Side effects of dobutamine include, angina and cardiac arrhythmias. You are monitored carefully during the entire test to ensure that any symptoms are noted and managed.

How should I prepare?

- Do not use any scented skin products, including: talcum, lotion, perfume, cologne, aftershave, etc.
- Ensure you have your Health Card with you.
- You should wear comfortable clothing and footwear for exercise.
- Bring all of your medication with you, in their original bottles.
- Ask your doctor if you should stop certain medications before the test.
- If you are booked for a Stress echo and cannot walk on a treadmill, please notify us in advance of the test.
- Stop medication know as Beta Blocker 72 hours in advance of the test, these include names such as: Metoprolol, Nadalol, Pindolol, Propranolol, Sotolol.

What happens during the test?

- Your test will be conducted by a trained Cardiovascular Technologist (CVT) and/or Registered Nurse (RN) and/or Echocardiographer.
- You will have electrodes attached to your skin (tiny stickers) for an electrocardiogram (ECG); men may have their chest hair shaved to allow for a better connection. You will

have a blood pressure monitor on your arm or wrist. Your breathing and symptoms will also be monitored.

- You will undergo initial echo cardiogram (see separate instructions).
- You will be asked to walk on a treadmill in order to achieve a target heart rate. A technologist will monitor you and encourage you to exercise.
- If you are walking on the treadmill or using a supine bicycle, the speed and incline of the exercise machine will gradually increase until a target heart rate is achieved
- When you have reached your target heart rate, you will be asked to quickly leave the treadmill and assume the position for immediate echocardiogram. The speed of acquiring the images is to obtain images of your heart motion while the heart is beating quickly and under the stress of exercise.
- If you are unable to exercise, you will have an intravenous started and a medication (**Dobutamine**) will be given slowly to stimulate your heart until a target heart rate is achieved