Exercise Echocardiography (Stress Echo)

This test combines a stress test with echocardiography. For further details regarding treadmill stress testing, please refer to that section. A stress echo is typically done in patients who have an abnormal plain treadmill test, an abnormal ECG, or to increase the likelihood of finding blockages of the arteries of the heart. The heart is evaluated with an ultrasound probe prior to exercising and also immediately after exercising. The images are compared to detect any abnormalities in the thickening of the heart muscle with exercise. If the heart muscle does not thicken appropriately with exercise, this typically means that there is a blockage in one or several of the arteries. An abnormal exercise echocardiogram may lead to heart catheterization, or change/addition of medications.

Preparation is similar to that of a treadmill stress test. It usually involves an **overnight fast** or at least **3-4 hrs** prior to the test if it is being done in the afternoon. If you are diabetic, you should ask your doctor for instructions regarding your insulin or diabetic medications on the day of the test. Typically these medications are held or the doses are lowered. If you are on heart medications such as nitroglycerin, beta-blocker or calcium channel blocker these medications may need to be held prior to your test. You should wear comfortable clothes and good walking shoes. For women, it is best to wear a loose fitting top that opens in the front.

If you are unable to walk on a treadmill for whatever reason, notify your physician so that you may have an alternative stress test that does not require physical exercise. This is called a pharmacological stress test and is done by injecting a medication that mimics the effects of exercise. In stress echo that is typically Dobutamine, a medication that increases the heart rate and blood pressure without exercising.

Ultrasound waves are harmless and pose no threat to you even if you are pregnant. It is the same type of test used to look at a baby prior to birth. Otherwise the risks are essentially the same as a treadmill stress test. Please refer to the treadmill section for further details.

This test takes approximately **one and a half hours** to complete. If there are any abnormalities identified during the stress test your doctor will discuss your options with you. Typically an abnormal stress echo leads to heart catheterization, or changes/addition of medications.