

Echocardiography

Echocardiography is an accurate and convenient method for diagnosis of heart diseases. In this method, sound waves are sent towards the heart through a device called probe, and depending on the materials used in structure of each part of the heart, a specific amount of these waves are reflected and the moving pictures of the heart are taken.

It is possible to detect the speed of blood flow between heart chambers and the great arteries by Doppler echocardiography. In this way, some moving pictures are appeared on the screen depending on different sound reflections from the red blood cells moving away or toward the probe.

In order to have a clearer picture in Doppler echocardiography, the blood flow is shown with different colors. For example, the blood that is moving toward the probe is shown in red and the one moving away in blue.

Patients with congenital heart defects are generally suffering from stenosis or dilation of heart valves, or even flow of the blood through the misplaced holes. All these disorders could be detected by echocardiography as well.

Heart valve diseases in adulthood such as aortic valve stenosis or mitral valve regurgitation could be evaluated by echocardiography as well.

Exercise Tolerance Test ,An EET test is among the most important methods used to evaluate coronary artery diseases. It is used to provide information about how the heart responds to stress. It usually involves walking on a treadmill at increasing levels of difficulty, while the electrocardiogram, heart rate and blood pressure are monitored. By placing the stress of exercise on the heart, the test can help to determine if there is adequate blood flow to the heart during increasing activity and help to determine the best cardiac treatment plan for you. During the test electrodes are placed on your chest, the same as for an electrocardiogram (ECG or EKG). Your blood pressure, heart rate, and EKG will be recorded at rest, usually while you are lying on your back and again when standing. Then you will be asked to walk on a treadmill, at varying speeds, so that your doctor can compare your heart's activity before, during and after exercise for any changes.

A healthy heart can cope with a rapid rate, but a diseased heart can soon be compromised, particularly if the coronary arteries are narrowed. So the heart cannot receive oxygen-rich blood and the person will feel pain. In this condition, some changes are seen in electrocardiogram, blood pressure and heart rate.

Using Quinton TM55 treadmill, CPR, electroshock and monitoring systems, this unit is capable of performing ETT.