**PAST AND PRESENT OF ECHOCARDIOGRAPHY**

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It became a reality in the mid-20th century when the famous scientist and the father of echocardiography Inge Edler and his partner Hellmuth Hertz marked the begining of a tremendous new diagnostic noninvasive technique.

Edler used this technique primarily for the preoperative study of mitral stenosis and diagnosis of mitral regurgitation. His work was carried forward by cardiologists all over the world, and many other forms and technique of echocardiography were developed.

An echocardiogram is a test that uses ultrasound to evaluate your heart muscle, heart valves, and risk for heart disease.there are several types of echocardiogram….

Transthoracic echocardiogram: This is the standard echocardiogram. It is a painless test similar to X-ray, but without the radiation. The procedure uses the same technology used to evaluate a baby's health before birth. A hand-held device called a transducer is placed on the chest and transmits high frequency sound waves (ultrasound). These sound waves bounce off the heart structures, producing images and sounds that can be used by the doctor to detect heart damage and disease.

Transesophageal echocardiogram (TEE): This test requires that the transducer be inserted down the throat into the esophagus (the swallowing tube that connects the mouth to the stomach). Because the esophagus is located close to the heart, clear images of the heart structures can be obtained without the interference of the lungs and chest.

Stress echocardiogram: This is an echocardiogram that is performed while the person exercises on a treadmill or stationary bicycle. This test can be used to visualize the motion of the heart's walls and pumping action when the heart is stressed. It may reveal a lack of blood flow that isn't always apparent on other heart tests. The echocardiogram is performed just prior and just after the exercise.

Dobutamine stress echocardiogram: This is another form of stress echocardiogram. However, instead of exercising to stress the heart, the stress is obtained by giving a drug that stimulates the heart and makes it "think" it is exercising. The test is used to evaluate your heart and valve function when you are unable to exercise on a treadmill or stationary bike. It is also used to determine how well your heart tolerates activity and your likelihood of having coronary artery disease (blocked arteries), and evaluates the effectiveness of your cardiac treatment plan.

The echocardiogram allows doctors to diagnose, evaluate, and monitor:

. Abnormal heart valves

. Atrial fibrillation

. Congenital heart disease

. Damage to the heart muscle in patients who have had heart attacks

. Heart murmurs

. Infection in the sac around the heart (pericarditis)

. Infection on or around the heart valves (infectious endocarditis)

. Pulmonary hypertension

. The pumping function of the heart for people with heart failure

. The source of a blood clot after a stroke or TIA

In the assessment of the systolic and diastolic blood pressure the echocardiography is effective in checking the movement of the valves in the ventricular fillings. The opening of the mitral valve in diastole and the closure in systole.