

Transthoracic Echocardiogram (TTE)

This test uses sound waves to obtain moving pictures of the heart. A machine generates these sound waves, called ultrasound, and then listens for the return of these sounds as they bounce back from the walls and valves of the heart, in the same way you would listen for an echo bouncing back to your ears from a distant cliff. The machine interprets the sounds to create a picture of your heart on a monitor. These pictures are recorded onto videotape or into a computer.

Why is it done?

Echocardiography is used to diagnose certain cardiovascular diseases. In fact, it is one of the most widely used diagnostic tests for heart disease. It can provide a wealth of helpful information, including the size and shape of the heart, its pumping strength, and the location and extent of any damage to its tissues. It is especially useful for assessing diseases of the heart valves. It not only allows doctors to evaluate the heart valves, but it can detect abnormalities in the pattern of blood flow, such as the backward flow of blood through partly closed heart valves, known as regurgitation. By assessing the motion of the heart wall, echocardiography can help detect the presence and assess the severity of coronary artery disease, as well as help determine whether any chest pain is related to heart disease. Echocardiography can also help detect hypertrophic cardiomyopathy, in which the walls of the heart thicken in an attempt to compensate for heart muscle weakness. The biggest advantage to echocardiography is that it is noninvasive (does not involve breaking the skin or entering body cavities) and has no known risks or side effects.

What do I need to do to prepare for the test?

There is no special preparation for the TTE. Fasting is not required, though it is preferable that you do not eat more than a light meal beforehand as gas in the stomach can interfere with our ability to obtain some images. No special recovery is needed afterwards.