

# Echocardiography

## ***What Are Echocardiography and an Echocardiogram?***

Echocardiography (ek o KAR de o grafe), or heart ultrasound, takes a motion picture of the inside of the heart as it pumps. It is commonly used for patients with heart failure. It tells the doctor more about how the person's heart is working.

Echocardiography is very safe. It does not use x-rays, and you do not need an injection. This test uses the same method that is used to look at babies before they are born.

With echocardiography, high-frequency sound waves are sent into the chest where they bounce off of the heart's walls and valves. The returning "echoes" or sounds produce an image of the heart on a computer screen. This image is called an echocardiogram (ek o KAR de o gram), or "Echo."

If you have heart failure, this study is very important because it allows your doctor to see the shape of your heart's chambers, valves, and walls. It also allows your doctor to see if your heart muscle is contracting or squeezing properly.

## ***What Happens During an Echocardiogram?***

During an echocardiogram you will be asked to lie on your left side, usually for about 15 to 20 minutes. First, the technician places jelly on your chest. The jelly helps the sound waves from the ultrasound move back and forth. Then the technician positions a small plastic wand or "probe" on your chest.

This probe transmits sound waves to the computer. The computer turns the sound waves into clear moving pictures of your heart. These pictures show your heart valves and the blood flow within the heart.

***How Do You Prepare for an Echocardiogram?***

On the day of your echocardiogram, you should wear a shirt or blouse that opens in the front. Women's bras will have to be removed.

If you have a cough or a chronic breathing problem, you should take your normal cough or breathing medications before your test. The test is easier if you are not coughing.

***What Are the Results?***

When the test is over, a doctor who is a heart specialist looks at the computer pictures and sends the test results to your doctor. This may take a few days. Your doctor will then tell you what the results show.

One useful result is your heart's ejection fraction. This is a percentage that says how much of the blood in the main chamber of your heart is pumped out during each beat. The higher the percentage, the more blood your heart is pumping out.

The normal range of ejection fractions is from 55% to 70%. Among heart failure patients, this ejection fraction number is usually lower.

Another useful result is to show how thick or stiff your heart wall is and the size of the chamber. The test can also show heart valve problems and signs of earlier heart attacks.

If you have heart failure and your ejection fraction is normal, it often means your heart failure has been caused by a heart muscle that is too thick or stiff for the heart chambers to fill normally.

Echocardiograms are completely safe and comfortable. They are a very important tool for the doctor to use in order to treat your heart condition.

## **Glossary**

<b>Term</b>	<b>Pronunciation</b>	<b>Definition</b>
<b>Echocardiogram</b>	ek o KAR de o gram	A test that shows the heart's shape and size and what happens when the heart beats
<b>Echocardiography</b>	ek o KAR de o grafe	A test that uses ultrasound waves to create an image of the heart muscle