

Echocardiogram

What is an echocardiogram (echo)?

This test uses sound waves to look at the heart. It is a safe and painless way to view the heart for problems.

How does it work?

A small device, called a transducer, is held against the chest. This sends sound waves that bounce off the heart.

A computer uses the information to create a picture of the heart. The picture is shown on a TV screen. It can be saved on DVD.

The echo consists of:

- **Two-dimensional echo:** This shows the true shape and motion of the different heart structures. These pictures represent “slices” of the heart in motion.
- **Doppler echo:** This allows doctors to see how the blood flows through the heart. The signals that represent blood flow are shown as a series of black-and-white tracings. They can be seen as color pictures on the TV screen. You may hear a whooshing sound. This is not the sound of your heart. It is a signal that the machine sends.

Benefits

The echo test gives doctors useful information about your heart.

- **Size of the heart:** The echo is used to measure the size of the heart chambers and thickness of the heart muscle.
- **Pumping strength:** It shows if the heart is pumping at full strength or if it is weak. It can also tell if all the parts of the heart pump the same.

- **Valve problems:** The echo shows the shape and motion of the heart valves. It can help tell if a valve is narrowed or leaking.
- **Other uses:** It is used to see if there is fluid around the heart, blood clots, mass inside the heart, or holes between heart chambers.

The echo may be done with an exercise test. This helps to see how well the heart pumps when made to work harder. This is called a stress echo.

Before Your Echo

You do not need to do anything special to get ready for this test. You may eat and go about your normal routines unless you are told otherwise. Make sure you wear a two-piece outfit. The echo may be done at the hospital or clinic.

During the Test

You will be asked to undress from the waist up and put on a short hospital gown. Electrodes (small sticky patches) are placed on your chest and shoulders to record your heartbeat.

You will lay on a special exam table. To help take better pictures, a clear gel is applied where the transducer will be placed. The gel will feel cool and moist. The gel will be wiped off at the end of the test.

A sonographer moves the transducer over the chest to get many views of the heart. They may ask you to change your position. Air in your lungs can affect the echo pictures. You may be asked to exhale or hold your breath for a few seconds.

Sometimes it is hard to get a good picture for those who have a broad chest, are overweight, or have a chronic lung disease (such as emphysema). In some of these cases, an IV may need to be placed in the hand or arm. This allows staff to inject saline or a contrast agent to better see any problems in your heart.

The pictures are recorded digitally so the doctor can review them later.

How long does it take?

An echo takes about 60 minutes depending on the number of views required. Be sure to allow extra time to check in. When the test is over, you may eat and return to your normal routine.

Is the echo safe?

The echo test is very safe. There are no known risks from the sound waves. The test is painless. You may feel slight pressure when the transducer is held against your chest.

Results

All the pictures are looked at by a cardiologist (heart doctor). The results of the test will help your doctor know how your heart is working. A report is sent to your primary doctor. Your primary doctor will contact you with the results in 1-2 weeks. A treatment plan that is best for you will be made. A copy of the echo report is not sent to your UW My Chart account.