

Echocardiogram (Echo)

What is an echocardiogram?

An echocardiogram (echo) is a test that uses high frequency sound waves (ultrasound) to make pictures of your heart. The test is also called echocardiography or diagnostic cardiac ultrasound.

Quick facts

- An echo uses sound waves to create pictures of your heart's chambers, valves, walls and the blood vessels (aorta, arteries, veins) attached to your heart.
- A probe called a transducer is passed over your chest. The probe produces sound waves that bounce off your heart and "echo" back to the probe. These waves are changed into pictures viewed on a video monitor.
- An echo can't harm you.

Why do people need an echo test?

Your doctor may use an echo test to look at your heart's structure and check how well your heart functions. The test helps your doctor find out:

- The size and shape of your heart, and the size, thickness and movement of your heart's walls.
- How your heart moves.
- The heart's pumping strength.
- If the [heart valves](#) are working correctly.
- If blood is leaking backwards through your heart valves ([regurgitation](#)).
- If the heart valves are too narrow ([stenosis](#)).
- If there is a tumor or infectious growth around your heart valves.

The test also will help your doctor find out if there are:

- Problems with the outer lining of your heart (the pericardium).
- Problems with the large blood vessels that enter and leave the heart.
- Blood clots in the chambers of your heart.
- Abnormal holes between the chambers of the heart.

What are the risks?

- An echo can't harm you.
- An echo doesn't hurt and has no side effects.

How do I prepare for the echo?

You don't have to do anything special. You can eat and drink before the test like you usually would.

"While I was lying on my side, the technician asked me to move a little as he moved the wand around my chest. It was really easy and didn't hurt a bit!" Mike, age 52

What happens during the echo?

Echo tests are done by specially trained technicians. You may have your test done in your doctor's office, an emergency room, an operating room, a hospital clinic or a hospital room. The test takes about an hour.

- You lie on a table and a technician places small metal disks (electrodes) on your chest. The disks have wires that hook to an electrocardiograph machine. An [electrocardiogram \(ECG or EKG\)](#) keeps track of your heartbeat during your test.

- The room is dark so your technician can better see the video monitor.
- Your technician puts gel on your chest to help sound waves pass through your skin.
- Your technician may ask you to move or hold your breath briefly to get better pictures.
- The probe (transducer) is passed across your chest. The probe produces sound waves that bounce off your heart and “echo” back to the probe.
- The sound waves are change into pictures and displayed on a video monitor. The pictures on the video monitor are recorded so your doctor can look at them later.

“The doctor had a portable machine that he brought to my hospital bed. He turned the camera and stopped it several times so he could show me the pictures of my heart. I could see my heart valves opening and closing.” Jaycee, age 41

What happens after the echo?

- Your technician will help you clean the gel from your chest.
- Your doctor will talk with you after looking at your echo pictures and discuss what the pictures show.

How can I learn more about an echo?

Talk with your doctor. Here are some good questions to ask:

- What are you looking for in my heart?
- Why are you doing this test instead of another test?
- What do I need to do to get ready for this test?
- When will I know the results?
- Do you expect me to have other tests?