

Echocardiogram

What is an echocardiogram?

An echocardiogram is a painless procedure that uses sound waves and a computer to look at your beating heart. A device called a transducer sends high-frequency sound waves (ultrasound) through your chest. The sound waves bounce, or echo, off your heart. A computer uses the echoes to create a moving picture of the heart.

Usually the transducer is placed on your chest. If your healthcare provider orders a transesophageal echocardiogram, a very small transducer on the end of a tube is passed down your throat.

When is it used?

An echocardiogram is used to help diagnose heart problems. It can show the size of the heart's chambers, the thickness of the chamber walls, how the chambers and heart valves are working, if there is fluid collecting around the heart, and how well the heart is pumping.

The echocardiogram may show signs of:

- blood clots in the heart
- previous heart attacks
- previous rheumatic fever
- heart problems you were born with
- tumors
- infections or other problems of the heart valves.

An echocardiogram is also helpful for follow-up after surgery to replace a heart valve.

How do I prepare for the procedure?

For an echocardiogram using a transducer on your chest, no preparation is necessary. If you are having a transesophageal echocardiogram, follow your healthcare provider's instructions.

What happens during the procedure?

This simple test takes about 45 minutes. You will lie down on an exam table on your side. A technologist will place some gel or lotion and a transducer on your chest. The transducer beams high-frequency sound waves at your heart. This information is returned, or echoed, to the transducer and a computer converts the echoes into a picture. The

technologist moves the transducer to several places on your chest until the picture is complete. You may be able to watch the picture while it is being recorded.

The technologist may also ask you to breathe a certain way or hold your breath. Occasionally, the technologist may inject a small amount of a liquid called contrast or dye through an IV to better see the inside of the heart.

An electrocardiogram (ECG) might be done at the same time. An ECG measures the electrical activity of your heart.

What happens after the procedure?

After the procedure, you can go home and go back to your normal activities.

Your healthcare provider will review the information and let you know what the picture shows.

What are the benefits?

This procedure does not cure a heart problem, but it helps your healthcare provider diagnose heart problems you might have. It can help your provider plan your treatment.

What are the risks of this procedure?

There is no risk from the ultrasound waves used in an echocardiogram.

Sound waves quickly lose their ability to penetrate with increasing distance. If you are very overweight or have a serious lung disease, such as emphysema, it may be hard to get good images of your heart. In this case, you may need a transesophageal echocardiogram or another procedure.

When should I call my healthcare provider?

Call your provider during office hours if:

- You have questions about the procedure or its result.
- You want to make another appointment.

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Transesophageal Echocardiography

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Transesophageal Echocardiography

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