

Choosing Wisely[®]

An initiative of the ABIM Foundation



Echocardiogram before surgery

When you need it—and when you don't

If you're having surgery, you may wonder if you need an echocardiogram first. Some people have this test to make sure it is safe for them to have surgery.

An echocardiogram uses sound waves (ultrasound) to take a moving picture of the heart. It shows if your heart has a problem pumping blood, which may put you at risk for a heart attack or heart failure. An echocardiogram can also show if there are problems with the valves in your heart.

The test is a safe way to see how well your heart is working. If your doctor thinks you might have heart disease, the test can be a good idea. But often the test is not needed. Here's why:

The test usually isn't necessary if you don't have symptoms or signs of heart disease.

Symptoms include shortness of breath, chest pain, palpitations, swelling of the ankles, or extreme fatigue. Signs include things that your doctor might find in your physical examination, such as a heart murmur.



People without symptoms rarely have problems with pumping blood.

You usually don't need the test if you haven't had heart disease and you don't have symptoms. An echocardiogram probably won't find a problem that would affect your surgery.

Testing can be expensive.

A standard echocardiogram can cost thousands of dollars. If your doctor orders a follow-up test called a transesophageal echocardiogram, or TEE, it can cost thousands more. Even with insurance, you may have to pay up to half the cost.

An echocardiogram can lead to other tests.

A standard echocardiogram is very safe and accurate. It does not use radiation or have side effects. Sometimes, findings on the echocardiogram might lead to another test to learn more about your heart. Usually it is better to get these issues resolved before your surgery.

The extra tests might include a TEE, a stress echocardiogram, or a coronary angiogram. These tests all have risks and possible complications. An echocardiogram can help determine whether any of those risks are necessary. In a TEE test, a tube is put down your throat and into your esophagus. This can cause a sore throat. In rare cases, it can cause injury to the throat.

In a stress echocardiogram, images are taken before and after using a treadmill. The results may be a false alarm. The results may also lead to having a coronary angiogram (cardiac catheterization). This is an invasive test with more risks. A tube called a catheter is put into your heart through an artery. Then dye is injected and X-rays are taken, which exposes you to radiation.

When should you have an echocardiogram before surgery?

You may need an echocardiogram before surgery if:

- You have a serious heart condition, such as uncontrolled heart failure, irregular heartbeats (arrhythmias), or significant valve disease.
- You have symptoms of heart disease, such as chest pain or shortness of breath.
- You get tired or out of breath more easily than you did in the past.
- You have an abnormal chest X-ray or electrocardiogram that points to heart problems.

In these cases, your doctor can use the echocardiogram to check your risks. The test can show if your doctor should change or postpone your surgery.

This report is for you to use when talking with your healthcare provider. It is not a substitute for medical advice and treatment. Use of this report is at your own risk.

© 2017 Consumer Reports. Developed in cooperation with the American Society of Echocardiography. To learn more about the sources used in this report and terms and conditions of use, visit

www.choosingwisely.org/patient-resources