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An initiative of the ABIM Foundation



**The Society
of Thoracic
Surgeons**

Heart stress tests before chest surgery

When you need them—and when you don't

If you're having chest surgery, a stress test can sometimes be helpful. It might find problems that need special care before, during, or after the surgery.

Chest surgery may be related to your lungs, your esophagus (the tube between your throat and your stomach), or another part of your chest. If your surgery is not related to your heart and you don't have a heart problem or difficulty walking or climbing stairs, you probably don't need a stress test. Here's why:

Stress tests usually aren't helpful if you don't have heart problems.

There are several kinds of stress tests. They take pictures of your heart while it is being stressed.

- In an exercise stress test, electrodes are attached to your chest while you walk or run on a treadmill.
- An ultrasound or stress echocardiogram uses sound waves.
- A nuclear stress test uses a radioactive substance.



The tests can show if you're at risk of having a serious heart problem during or after surgery, such as a heart attack or an abnormal heart rhythm. If there is a risk, your doctor may change the way your surgery is managed.

But the tests are usually not helpful for physically active people without heart disease or symptoms. Stress tests usually don't improve their surgery.

A stress test can lead to other tests.

The tests are usually very safe and use little or no radiation. But in people without a history of heart problems, stress tests can cause false alarms. This can lead to anxiety, more tests and treatments, and delayed surgery.

For example, a stress test may lead to a coronary angiography. In this test, a tube is put into a blood vessel. The test uses dye and X-rays. X-rays expose you to radiation. In rare cases, coronary angiography causes serious problems, including death.

This test can lead to an unnecessary procedure to open a blocked artery that isn't causing problems. After the procedure, the patient must use a blood-thinner for many months. This can increase the risk of your chest surgery or delay it for up to a year.

The tests can cost a lot.

Stress tests can cost thousands of dollars. A coronary angiography can cost more than \$9,000, and a procedure to open a blocked artery can cost more than \$20,000.

When should you have a stress test before chest surgery?

You may need a stress test before chest surgery if:

- You have a serious heart condition such as uncontrolled heart failure or severe valve disease.
- You have symptoms that could be related to a heart problem, such as chest pain or trouble breathing.

You may need a stress test before chest surgery if you have both of the risk factors listed below:

- You have diabetes, kidney disease, or a history of coronary artery disease, heart failure, or stroke.
- *And* you cannot walk four blocks or climb two flights of stairs.

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.

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