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Heart imaging tests before surgery

When you need them—and when you don't

If you're having surgery, you may wonder whether you need an imaging test of your heart. It seems like this could help ensure that it is safe for you to have the surgery. But imaging tests usually aren't helpful unless you are having heart surgery. They also don't help if you haven't had a stroke and don't have a severe heart condition, diabetes, or kidney disease. Here's what heart imaging tests are like and what they do:

Some imaging tests use sound waves to take pictures of the heart. This is called echocardiography. Other tests use a small amount of radioactive material. These may be called either a nuclear or CT scan.

A heart imaging test can show whether you are likely to have a heart attack or other serious complication during surgery. If the test results show a problem, your treatment may change. You may:

- Get special care during or after surgery,
- Not have surgery until the problem is treated, or
- Have a different kind of surgery.



In many cases, though, heart imaging tests aren't helpful. Here's why:

These tests usually aren't needed before low-risk surgery.

The risk of heart complications from minor surgery is very low. Any outpatient or same-day surgery is usually thought to be minor. This includes breast biopsies and eye or skin surgery. Heart-imaging tests are not likely to improve the results of these surgeries. Even major surgery is safe for most healthy people, if they feel well and are physically active.

Unless you have heart disease or other risk factors, usually all you need before surgery is a careful medical history and physical exam.

Heart imaging tests have some risks.

These tests are usually very safe. But if your risk of having a heart problem is low, the tests can create a false alarm instead of finding a serious problem. That can cause anxiety. It can also lead to more tests or an unneeded delay of surgery.

For example, you might have a follow-up test to view the blood vessels in your heart. This test is called coronary angiography. During this test, a very thin tube is inserted into the heart through a vein. Dye is injected, and X-rays are taken. The risks are low, but exposure to X-rays adds up over your lifetime. It's best to avoid X-rays whenever you can.

Imaging tests can cost a lot.

An imaging stress test can cost \$2,000 or more, and a cardiac CT scan costs hundreds of dollars. If abnormal results lead to coronary angiography, that can add thousands of dollars to the cost. So the tests should only be used when you need them.

When are imaging tests needed before surgery?

You may need an imaging test before surgery if:

- You have severe heart valve disease or serious heart failure.
- You have symptoms of heart trouble, such as chest pain or trouble breathing.
- You are having surgery that is considered to be medium-risk or high-risk, and you have both of these other risks:
 - You have diabetes or kidney disease, or a history of coronary artery disease, heart failure, or stroke.
 - You cannot walk a short distance or climb stairs without having symptoms, like being short of breath.

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