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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 if you need an imaging test of your heart to make sure it is safe for you to have the surgery. But if you are not having heart surgery—and you haven't had a stroke and don't have a severe heart condition, diabetes, or kidney disease—the imaging tests usually aren't helpful. Here's why:

The tests usually aren't necessary before low-risk surgery.

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 can be called either a nuclear or CT scan.

Doing a heart imaging test can show whether you're at risk of having a heart attack or another serious complication when you have surgery. The test results may lead to special care during or after surgery, delaying surgery until the problem is treated, or changing the kind of surgery.

But the risk of heart complications from minor surgeries, such as a breast biopsy, eye or skin surgery, or any "same-day" surgery, is very low. There really isn't anything doctors can do to lower



the risk further. In other words, heart-imaging tests are not likely to change anything. In fact, even major surgery is safe for most healthy people who 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 can pose risks.

The tests are usually very safe, and some can be done with little or no radiation. But if your risk of having a heart problem is low, the tests can produce a false-positive result that could cause anxiety and lead to more tests and an unneeded delay of surgery.

For example, you might have a follow-up coronary angiography (cardiac catheterization). During this test, a catheter is inserted into the heart through a vein, dye is injected, and x-rays are taken. The risks are low, but exposure to radiation adds up over your lifetime, so it's best to avoid x-rays whenever you can.

Imaging tests can cost a lot.

An imaging stress test costs between \$500 and \$2,000, and a cardiac CT scan costs \$500 to \$600. If abnormal results lead to coronary angiography, that can add about \$5,000 to the cost. So the tests should only be used when the results would change the way your surgery is done.

When are imaging tests needed before surgery?

You may need an imaging test before surgery if:

- You are having low-risk surgery and you have severe heart valve disease or Class IV heart failure, or you have symptoms, such as chest pain or trouble breathing, that could be heart-related. You may first need to take care of the condition before you have surgery.
- You are having intermediate-risk surgery, such as knee or hip replacement, or high-risk surgery, such as bypass surgery for a blocked artery in your leg, 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.

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

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Advice from Consumer Reports

How should you prepare for surgery?

Your doctor or the hospital's pre-surgery team will examine you and review your medical history.



- If they order any tests, make sure they tell you why.
- Bring a list of the names, doses, and directions for all the medicines, vitamins, and herbal supplements you take.
- Report any new symptoms that could be warning signs of heart disease—even if they happen after your exam.

These steps can help make your surgery safer:

- **Quit smoking, at least for the surgery.** The sooner you quit, the less likely you are to have complications. It is very important not to smoke on the day of your surgery. If you need help stopping, ask your doctor about a nicotine patch.
- **Consider banking your blood.** You can have some of your own blood drawn and stored before surgery. That way if you need a blood transfusion, you will get your own blood. This reduces the risk of infection or a bad reaction.
- **Ask about non-prescription pain relievers.** Ask your doctor if you should stop taking aspirin or other blood thinners. You may want to use acetaminophen (Tylenol and generic) for pain relief. Avoid ibuprofen (Advil, Motrin, and generic) and naproxen (Aleve and generic) because they can cause bleeding.
- **Ask for help.** Ask someone to drive you to and from the hospital. You may also want someone to stay overnight in the hospital with you. Ask about nursing or rehab care, too.
- **Pack a bag.** Bring:
 - Insurance cards.
 - Storage containers for dentures, contact lenses, and eyeglasses.
 - A few items for comfort, such as a music player and headphones, photos, and a robe. Do not bring jewelry and other valuables.