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AMERICAN SOCIETY OF
NUCLEAR CARDIOLOGY



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 don't have symptoms or risk factors for heart disease, the imaging tests usually don't help. Here's why:

The tests aren't needed before surgery.

A variety of imaging tests may be used to examine the heart. Echocardiography uses sound waves to take pictures of the heart. Nuclear cardiology tests use a small amount of radioactive material to show the blood flow to the heart. And a cardiac CT scan uses x-rays to look at the blood vessels and structure of the heart.

These tests can show if you're at risk of having a heart attack or another serious problem during surgery. The tests may show that you need special care during or after surgery. Or you may need to delay surgery until the problem is treated, or have a different kind of surgery.

But if you have minor surgery, the risk of heart problems is very low. Minor surgeries include any "same-day" surgery, such as breast biopsy, eye, or skin surgery. There isn't much more doctors can do



to lower the risk. And having a heart-imaging test is not likely to lower your risk.

In fact, even major surgery is safe for most healthy people who feel well, are moderately physically active, and do not have symptoms of heart disease. In this case, usually all you need before surgery is a careful medical history and physical exam.

Heart imaging tests have risks.

The tests are usually 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 false-positive results. This can cause anxiety and lead to more tests and delay of your surgery. For example, you might have a follow-up coronary angiography, which exposes you to more risks and radiation. 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 \$500 to \$2,000. A cardiac CT scan costs \$500 to \$600. A follow-up coronary angiography costs about \$5,000. 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 have a known heart condition, such as coronary artery disease or heart failure.
- You have possible symptoms of heart disease, such as chest pain, trouble breathing, or a loss of energy.
- You are going to have some kinds of moderate-risk surgery, such as a knee or hip replacement.
- You are going to have a 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, be sure to ask why.
- Bring a list of the names and doses for all the drugs and supplements you take.
- Report any new symptoms, especially if they might be heart-related—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.
 - Containers for dentures, contact lenses, and eyeglasses.
 - A few items for your comfort, such as a music player and headphones, photos, and a robe. Do not bring jewelry and other valuables.