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Heart stress tests before surgery

When you need a test—and when you don't

If you're having surgery, you may wonder if you need a heart stress test beforehand. It may seem like a good way to ensure a safe surgery. But you probably do not need the test if you are healthy, active, and feeling well, or if you're having minor surgery. Here's why:

The tests aren't useful before minor surgery.

There are different types of tests, but they are all meant to find out the same thing: how your heart performs when it is working hard or under stress. In an exercise stress test, you walk or jog on a treadmill with electrodes attached to your chest. Images of your heart are taken while you exercise. An imaging stress test uses heart ultrasound (also called stress echocardiography) to take pictures of your heart. This is done first while you are at rest. Next, more pictures are taken while your heart is working hard or being stressed. A nuclear cardiology test uses a small amount of a radioactive substance to take pictures of your heart while it is being stressed.

Heart stress tests can show if you have significant heart disease. Serious heart disease could put you at risk of having a heart attack or another serious complication during surgery. The test results may lead to special care before, during, or after



surgery. The test results may also prompt your care providers to delay the surgery or change to a less invasive kind.

But the risk of heart complications from a breast biopsy, eye or skin surgery, a hernia operation, or other “same-day” surgeries is very low. The risk is so low for minor surgeries that even most people with heart disease do well. If you feel well and are physically active, your chance of having significant heart disease is low. So you usually don't need a stress test, even for major surgeries.

How should you prepare for surgery?

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

- If tests are ordered for you, ask why.
- Bring a list of the names, doses, and directions for all the medicines, vitamins, herbs, and other supplements you take.
- Report any new symptoms that could be warning signs of heart disease, such as chest pain or pressure, or trouble with any physical activity, even if they occur after your exam.

The following 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 medications that can help you quit.
- **Consider banking your blood.** You can have some of your blood drawn and stored before surgery. That way, if you need a 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 aspirin or other blood thinners. You may want to use acetaminophen (Tylenol and generic) for pain relief. Avoid ibuprofen (Advil, Motrin IB, 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 and stay overnight 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.

Heart stress 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, they are more likely to result in false alarms. These can cause anxiety or an unnecessary delay of surgery, or lead to more tests.

For example, if your stress test results are not normal, you might have a follow-up coronary angiography (cardiac catheterization). During this test, a thin tube is inserted into the heart through an artery, dye is injected, and X-rays are taken. The risks are low, and complications are rare. But the test can lead to bleeding or a heart attack, and sometimes death. Also, exposure to radiation adds up over your lifetime, so it's best to avoid X-rays when you can.

Heart stress tests can cost a lot.

An exercise stress test costs more than \$200, and an imaging stress test costs as much as \$2,000. If abnormal results lead to coronary angiography, that can add thousands more to the cost.

When are stress tests needed before surgery?

Usually, stress testing should be done only when the results would change the plan for your surgery.

You might need a stress test before surgery if you have a serious heart condition. This includes uncontrolled heart failure or severe valve disease, chest pain or trouble breathing, or if you get tired or winded more easily than you did before.

You might also need a stress test before surgery if you have the following risks:

- You are having intermediate-risk surgery, such as knee or hip replacement, or high-risk surgery, such as for an aneurysm or a blocked artery.
- And you have diabetes, kidney disease, or a history of coronary artery disease, heart failure, or stroke.
- And you have a hard time walking a short distance or climbing 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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