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## Heart Tests Before Surgery: When you need an imaging test—and when you don't



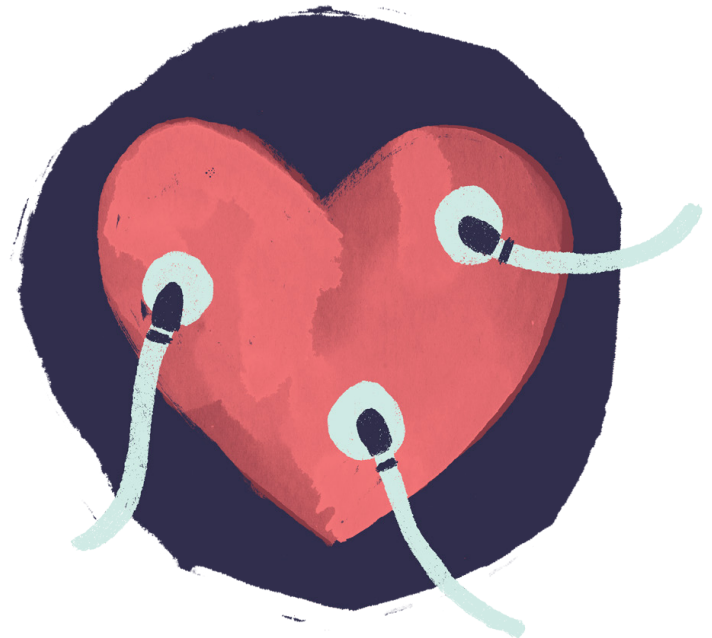
If you're scheduled for non-cardiac surgery, a test that takes pictures of your heart can sometimes help to identify risky undiagnosed cardiac problems that may require a delay in your operation. But if your surgery isn't related to the heart and you don't have heart-related symptoms or risk factors, the test may not be helpful. Here's why:

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### **Pre-surgical imaging tests are NOT always necessary.**

A pre-surgery imaging test such as an exercise or chemical stress test with imaging—using sound waves (ultrasound or echocardiography) or a small dose of a radioactive substance (nuclear cardiology) or even a cardiac CT scan—can show whether you're at risk of experiencing serious heart problems, such as a heart attack or heart failure, during or soon after surgery. Abnormal results may lead to postponing surgery until the problem is treated, choosing a less invasive procedure, or getting special care at the time of your operation.

However, these tests aren't useful for most people undergoing low risk procedures such as eye surgery or breast biopsy. That's because the risk of heart complications from such operations is so low that it's hard to do anything differently to lower it further. In fact, even major surgery is safe for most healthy people who feel well and are moderately active without symptoms. All they usually need is a medical history and physical exam.



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### **The tests can pose risks!**

Preoperative imaging tests are usually very safe and can be done with little or no radiation. But if you're unlikely to have a heart problem, they may produce false-positive results (indicating you have heart disease when you actually do NOT) that could prompt anxiety, additional risky testing, and a delay of your surgery. For instance, they might be followed up with coronary angiography (cardiac catheterization), a test that uses dye and X-rays to look at your heart vessels. While the risk from any one test may be acceptable, risks are cumulative and can cause harm down the road so it's best to avoid unnecessary radiation exposure or invasive procedures.

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## When are the tests needed before surgery?

An imaging test may be ordered even for low-risk surgery if you have a severe heart condition or you're experiencing symptoms that could be heart-related, such as chest pain, breathing difficulty, or a loss of stamina. They may also be considered prior to intermediate-risk surgery (such as knee or hip replacement) or high-risk surgery (such as a bypass operation for leg artery blockages) in people who have risk factors—including diabetes, kidney disease, or a history of coronary artery disease, heart failure or stroke, and who have poor exercise tolerance making it hard to assess heart-related symptoms or can't walk a short distance or climb stairs without experiencing heart-related symptoms.

Make sure to talk to your family health care provider and surgeon regarding your individual needs.

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## About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.

### How this pamphlet was created:

This pamphlet was adapted with permission from a similar pamphlet used in the US Choosing Wisely campaign, organized by the ABIM Foundation. Modifications were made to ensure relevance for a Canadian audience. Canadian reviewers of this pamphlet included the Canadian Cardiovascular Society and the Canadian Society of Internal Medicine.

This pamphlet 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 pamphlet is at your own risk.

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## How should you prepare for surgery?

Your health care provider or the hospital's pre-operative evaluation team will examine you a week or two prior to surgery.

- Make sure they provide a specific reason for any pre-operative test.
- Bring a list of all the drugs and supplements you take.
- Also mention any new symptoms that could be warning signs of heart disease.

And consider taking these steps to make surgery safer:

### Quit smoking, at least temporarily.

The earlier you quit, the less likely you are to experience complications. It's especially important not to smoke on the day of your operation. If you need help, ask for a nicotine patch.

### Ask about OTC pain relievers.

Ibuprofen (Advil, Motrin and generic) and naproxen (Aleve and generic) can cause excess surgical bleeding, so stick with acetaminophen (Tylenol and generic). Ask your health care provider if and when you should stop aspirin or other blood thinner.

**Line up post-surgery help.** Have someone drive you to and from the hospital and stay overnight if necessary. Find out about nursing or rehab care, too.

**Pack a bag.** Don't bring valuables, but do bring:

- Your provincial health card and hospital card.
- Containers for dentures, contact lenses and eyeglasses.
- A few comforting items such as a music player, photos, and a robe or pillow.