A stress test makes the heart work hard so your doctor can see if it is healthy. In a simple exercise stress test, you walk or jog on a treadmill. You are connected to an electrocardiogram (ECG), which measures your heart’s electrical activity.

Some stress tests use imaging to take pictures of your heart while it is stressed. There are several kinds of imaging stress tests:

- An ultrasound test uses high-pitched sounds that bounce off the heart. It’s called an “echo” test, or echocardiography.
- Another test uses a small amount of radioactive material, called a tracer. The tracer goes into the heart, and a camera takes pictures of it. This test is called a nuclear cardiology test.

In some cases, an imaging test can give your doctor useful information. But if you have a low risk for heart problems, you often don’t need the imaging test even if you have chest pain. Here’s why.

Your chest pain may not mean heart disease. Chest pain can have many possible causes besides heart disease. The cause could be indigestion, anxiety, or muscle injury. If your doctor finds that you probably don’t have a heart problem, you may not need a stress test at all.
A simple stress test is often the first choice.
If you do have a heart problem, your first choice should often be a simple stress test without imaging. This test has little risk and is inexpensive. It is usually accurate for people with a low risk of heart problems.

Imaging stress tests have risks.
Imaging stress tests are usually safe and can use little or no radiation. But for people at low risk, the tests may produce false alarms. This can lead to follow-up tests that you don’t really need. The extra tests can expose you to more radiation. Inappropriate testing can also lead to unnecessary treatment.

Imaging stress tests can be expensive.
An imaging stress test can cost 10 times more than a regular stress test. You should only get an imaging stress test when it will help your doctor manage your disease or lead you to a better treatment.

When do people with chest pain need imaging tests?
You may need an imaging stress test if:

- Your chest pain comes on with physical effort or emotional stress and goes away with rest, especially if you’re a man over 40 or a woman over 50.
- You have an abnormal ECG and can’t get an accurate interpretation during an ECG treadmill test.
- You can’t exercise.
- You have a higher risk. For example, you are a smoker, or you have uncontrolled diabetes or high blood pressure.