

Cardiac Stress MRI

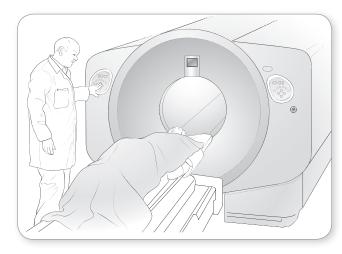
What is a cardiac stress MRI test?

A **cardiac stress MRI** is a test that creates detailed images of your heart and blood vessels. During the test, a medication is injected that increases blood flow to your heart — this mimics the effect of stress or exercise on your heart. A cardiac stress MRI can show whether your heart is getting enough blood, and whether there are areas of heart muscle damage from previous heart attacks.

MRI (magnetic resonance imaging) uses radio waves and strong magnets to create images of your body tissues. Many images are created during an MRI test, each focused on a different plane or "slice" of your heart. A computer combines them to create detailed pictures or movies of your heart.

Cardiac stress MRI tests are safe and effective.

An MRI test does not use x-rays, so it doesn't expose you to radiation. Yet an MRI test can provide more information than a traditional x-ray or CT scan.



In a cardiac MRI test, you will lie on a special exam table surrounded by a large magnet.

Talking with your doctor about the cardiac stress MRI test

The table below lists the most common potential benefits, risks, and alternatives for the cardiac stress MRI test. There may be other benefits or risks in your unique medical situation. Talking with your doctor is the most important part of learning about these risks and benefits. If you have questions, be sure to ask.

Potential benefits	Risks and potential complications	Alternatives
A cardiac MRI: Provides detailed images of your heart that can help your doctor diagnose heart problems Does not involve radiation (x-rays)	Cardiac stress MRI tests are generally very safe. Potential complications include: • Injury caused if the magnet reacts with metal in or on the body. If you have metal objects or certain types of devices implanted in your body, you may not be able to have an MRI. Tell your doctor about any surgeries or procedures you've had. • Symptoms caused by the medication used to mimic stress on your heart. These can include facial flushing, nausea, dizziness or lightheadedness, mild headache, mild shortness of breath, fast or slow heartbeat, chest tightness, arm discomfort, or jaw discomfort. • Allergic reactions to the MRI enhancing agent, if it is used. This is rare.	Alternatives to cardiac MRI depend on your situation and the information the doctor needs. They include other heart stress imaging tests, such as: • Cardiac stress echocardiogram (heart ultrasound) • Stress electrocardiogram (ECG or EKG) • Nuclear stress test • Cardiac catheterization/angiogram • CT scan of the blood vessels that feed the heart

How do I prepare for the test?

- Tell your doctor about anything implanted in your body, and about any surgeries or procedures you've had. This will help your doctor decide whether an MRI is right for you. An MRI test uses a powerful magnet, so surgical implants can interfere with the test or cause serious injury. Implants that can cause problems include, but are not limited to:
 - inner ear implants
 - pacemakers or ICDs
 - some types of brain aneurysm clips
 - nerve stimulators

With rare exceptions, people with implanted devices such as these should not have an MRI. Your doctor will tell you if an MRI test can be used in your case.

- Tell your doctor about medications you are taking, including over-the-counter drugs and herbal supplements. Also tell your doctor if you are allergic to any medication.
- Tell your doctor about any symptoms you have during exercise, such as heart rhythm problems, nausea, chest pain, or breathing problems.
- Tell your doctor if you feel anxious in enclosed places. Depending on the type of MRI machine used for the test, your doctor may prescribe or give you a sedative beforehand to relax you.

- Follow your doctor's directions about whether to stop medications, food, or drink before the test.
 You may also be asked to:
 - Avoid caffiene for 24 hours before the test. (Caffiene is found in coffee, tea, chocolate, many sodas, and energy drinks.)
 - Avoid smoking on the day of the test.
 - Stop certain medications for heart disease, diabetes, or asthma. Do not discontinue any medication without first talking with your doctor.
- Consider leaving jewelry, watches, hairpins, and similar items at home. No metal items are allowed in the MRI room. For convenience, you may want to leave non-necessary metal items at home. (If you wear objects such as eyeglasses, they can be left in another room during the test.)

What happens before the test?

Here's what happens when you arrive for the test:

- Checking in. Tell the MRI technologist if you have any electronic devices or surgical implants in your body.
- **Getting ready.** You'll change into a gown and remove glasses, removable dental work, and any other metal items. Patches will be attached to your chest to monitor your heartbeat.
- IV line. An intravenous (IV) line will be placed in your wrist or arm so medication and MRI enhancing agent can be injected into a blood vessel during the test.

What happens during the test?

Depending on what the doctor is looking for, a cardiac stress MRI test takes approximately 60 minutes. Here's what happens during the test:

- Getting on the MRI exam table. During the test, you'll lie on a moveable exam table. Pillows or straps may be used to help you remain in the correct position. The technologist will help you get comfortable. If you want an extra pillow or a blanket under you, tell the technologist.
- Talking with the technologist. You'll probably be alone in the MRI room during the test, but the technologist will be able to see and hear you. If you have a question or you're uncomfortable, tell the technologist.
- **Medication through the IV.** You will have medication to simulate stress on your heart.
 - What you may feel: The medication may make you feel like you are exercising. You may also have some minor tingling, light-headedness, headache, or nausea.
 - Tell your healthcare provider if you have chest pain,
 a fluttering heartbeat, trouble breathing, or sweating.
 Your healthcare provider will be in the room when
 the medication is injected, and can make sure you
 are safe. If necessary, your healthcare provider can
 give you medication to reverse the symptoms.
- Lying still. While the machine is recording images, you'll need to lie as still as possible. The technologist will tell you when you can move and when you need to lie still.
- MRI sounds and sensations. When the MRI machine is working, you will hear thumping, knocking, or humming that can sometimes be loud. This is normal, and you will be given earplugs to minimize the noise. You may also feel some warmth in the area being examined by the MRI, but this is normal.

What happens after the test?

After the test is finished:

- You'll have an electrocardiogram (ECG or EKG) test to check your heart rhythm. This is a painless test that takes 5 to 10 minutes.
- The arm cuff, finger clip, electrodes and IV line will be removed.
- You can usually go home the same day.
- You'll get the results of your test in a follow-up appointment with your doctor.

When should I call the doctor?

Contact your doctor if you notice any of the following symptoms after the test:

- · Racing or fluttering heartbeat
- Chest pain
- Trouble breathing

