

# Cardiac MRI Scan With Pharmacologic Stress Test

## General Information

A cardiac magnetic resonance imaging (MRI) scan with a pharmacologic (medicine) stress test helps your health care provider see how well your heart works at rest and during stress.

This test also helps your health care provider tell if parts of your heart muscle are not getting enough blood.

You will be given a medicine that makes your heart beat faster and contract stronger while you lie on an exam table. Your heart will be exercising but your body will not.

During the scan, you will also be given gadolinium (a contrast) to help see different areas of your heart. Gadolinium is not an iodine contrast.

The scan is painless and safe. It will take about 2 hours, including preparation time.

## What To Tell Your Health Care Provider and Technologist

MRI is a safe exam but there are certain things that could interfere with it. Before your scheduled MRI, tell your health care provider and technologist if you:

- are pregnant or think you may be pregnant
- are afraid of closed-in spaces (claustrophobia). Your health care provider may give you a special medicine to help you relax before your scan. **If you do receive medicine, you will not be able to drive after your scan. Arrange to have someone drive you home.**

**Important:** Tell your health care provider and technologist if you have:

- a brain aneurysm clip
- a Cochlear™ implant, implanted hearing aid or hearing aid
- an implantable cardioverter defibrillator (ICD)
- a pacemaker
- an electronic or magnetic device or implant
- an insulin pump
- an infusion pump or implanted drug infusion device
- an artificial joint (prosthesis) or implant
- an artificial or prosthetic limb
- any metal object inside or outside of your body, or have ever gotten metal in your eyes
- any other implanted device or foreign object in your body.

Any metallic object or substance could affect the quality of the images. It could also cause discomfort or injury when you are in the scanner.

An MRI can't happen until your health care provider and the MRI staff confirm you are safe for the MRI.

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## Before the Scan

- For 12 hours before the test, do not eat or drink:
  - any caffeinated or decaffeinated beverages (such as coffee, tea, hot chocolate or soda)
  - chocolate
  - medicines that contain caffeine unless your doctor tells you otherwise.
- Do not eat or drink anything 3 hours before your scan.
- Take your regular medicines with a small sip of water the morning of your scan.
- You will change into a hospital gown and pants.
- You will need to remove:
  - body piercings, jewelry and watches
  - hairpins or barrettes
  - dentures
  - glasses
  - hearing aids
  - anything else that could be attracted to the magnet.
- You will be asked to fill out a safety checklist and answer questions about your medical history.
- A technologist will talk with you and tell you what to expect. He or she will also start an intravenous (IV) line in your hand or arm.

## During the Scan

- The technologist will position you on a special table.
- The technologist will place the following on you:
  - electrocardiogram (EKG) patches and a receiver coil on your chest
  - blood pressure cuff on your arm

- oxygen monitor on your finger
- earplugs or headphones.

- The table will slide into the scanner.
- The inside of the scanner is lighted and allows air to pass through for your comfort.
- Both ends of the scanner are open.
- You will need to relax and lie still during the scan. This will help the scanner take clear images.
- The scanner makes a fast thumping noise while it is taking images. This is normal.
- You may be asked to hold your breath.
- After 10 to 15 minutes of scanning your heart, a medicine will be given through your IV line.
- While you receive the medicine, you may feel your heart rate speed up or have chest discomfort, shortness of breath, hot flashes or all. This is normal.
- Three to five minutes after you receive the medicine, you will receive the gadolinium. You may feel a cool sensation up your arm and have a funny taste in your mouth. This is normal.

## After the Scan

- The table will slide out of the scanner.
- If you received contrast injection:
  - The IV catheter will be removed.
  - If your health care provider says you are able, drink up to four 8-ounce glasses of water for the next 8 hours to clear the contrast out of your system.
- Return to your normal activities, diet and medicines. Follow any instructions your technologist gives you.