

# CARDIAC MAGNETIC RESONANCE IMAGING STUDY (CARDIAC MRI)

## BEFORE THE TEST

- **If you are not claustrophobic (fear of closed spaces); you will not require any sedation, you can eat, and take your medications as usual.**
- **If you are claustrophobic; you may ask your physician to reschedule your MRI with anesthesia.**
- For your safety, anyone undergoing a scan should be free of certain **metallic or magnetic items**. Inform the MRI staff if you have any metallic implants or any metal under the skin. Most metallic implants, such as sternal wires and mediastinal clips used for heart surgery, pose no problem. However, some conditions may make an MRI inadvisable. Tell your physician if you have any of the following conditions:
  - Implanted pacemaker or defibrillator
  - Cerebral aneurysm clip (metal clip in a blood vessel in the brain)
  - Implanted Insulin pump, narcotic pump or implanted nerve stimulators (TENS) for back pain
  - Metal in the eye or eye socket
  - Cochlear (ear) implant for hearing impairment
  - Some stents - while most stents are safe, some stents may not be (for example, the Zenith AAA Endovascular Graft)
- **If you are or might be pregnant, or if you are breast-feeding, please call us and let us know right away.**

## ABOUT THE TEST

### What is this test?

- Cardiac MRI is a test that produces high-quality still and moving pictures of the heart and great vessels. MRI uses large magnets and radio-frequency waves to produce pictures of the body's internal structures; no X-ray exposure is involved. MRI acquires information about the heart as it is beating; creating moving pictures of the heart throughout its pumping cycle. The MRI scan takes about 30 to 90 minutes, depending on the extent of the imaging needed.

### Your physician uses the MRI to evaluate:

- The anatomy and function of the structures of the chest: heart, great vessels and pericardium.
- Presence of disease: ischemic heart disease, thoracic aortic disease, pericardial disease, right ventricular abnormalities, cardiac tumors, valve disease, heart muscle disease (cardiomyopathy), pulmonary artery disease and complex congenital heart disease.

### What will happen to me during the test?

- An MRI technologist will prepare you for your scan. You will change into a hospital gown.
- The technologist will place small sticky, electrode patches on your chest and back. Male patients may expect to have their chest partially shaved to help the electrodes stick. The electrodes are attached to an electrocardiograph (ECG) monitor, which charts your heart's electrical activity during the test.
- Most likely, an intravenous (IV) line will be inserted into a vein in your arm for non-iodine based contrast (dye) administration.
- The MRI scanner unit is a long tube that scans the body as you lay on a platform bed. It is fully lit, ventilated, and open at both ends. You will lay on your back on the scanner bed, with your head and legs elevated for comfort.
- You must remain as still as possible during the picture-taking process. The technologist will ask you to stop breathing periodically for short periods in order to reduce blurring of the images from breathing motion.
- During scanning, you may hear loud banging noises, which can be muffled with headphones or earplugs which you will receive before scanning begins. An intercom system allows you to talk to the scanner operators during the test. You can listen to music, please ask your technologist for the available selections.

### Are there after-test restrictions for me to follow?

- **You will be restricted from driving after the test and the remainder of the test day.**
- If you received anesthesia; The MRI nurse will give you instructions on when you can eat, drink and return to normal activities.
- If you did not receive anesthesia; you may resume your usual activities and normal diet immediately.

### How will I know the results of my test?

Your test results will be sent to the physician who ordered the test. During your follow- up appointment, your referring physician will discuss the results of your test.