

## MRI: Heart Scan

### *How to prepare and what to expect*

*This handout explains how an MRI scan of the heart works, how it is done, how to prepare, what to expect, and how to get your results.*

### What is an MRI scan?

*Magnetic resonance imaging* (MRI) is a way to take pictures of your internal organs and tissues. It uses radio waves and a strong magnet to provide clear and detailed pictures. Even different types of tissue within the same organ are easily seen in an MRI image.

MRI will help your healthcare provider decide which treatment is best for your health condition.

### What is a heart MRI?

An MRI scan of the heart usually involves taking at least 10 sets of pictures. Each set will show a different area of your heart. It takes 14 seconds to 7 minutes to take each set.

### For Your Safety

#### Health Review

We need to know about certain **health conditions** before your MRI scan. Please tell us if you:

- Have any problems with your liver or kidneys, or need a liver or kidney transplant
- Are on dialysis
- Have had any surgeries
- Have allergies to any drugs or contrast (X-ray dye)



*An MRI image of the heart*

#### Screening for Metal

**If you have any metal on or in your body, an MRI can harm you.** The strong MRI magnet will pull on any *ferromagnetic* object, such as iron and some other metals.

This is why we need to know if you have any metal in or on your body before we give you an MRI scan. Even small amounts of metal that will not harm your body can ruin the MRI image.

Please tell MRI staff if you have:

- Aneurysm clips, a heart pacemaker (or artificial heart valve), an implanted port, an infusion catheter (such as Port-o-cath, Infusaport, or Lifeport), an intrauterine device (IUD), any metal plates, clips, pins, screws, or surgical staples, a prosthetic hip, or any implanted metal object in your body
  - Most times, surgical staples, clips, plates, pins, and screws are not a risk during MRI if they have been in place for more than 4 to 6 weeks. If needed, we may do an X-ray to check for metal.
- Tattoos or permanent eyeliner
- Medicine patches
- A bullet or shrapnel in your body
- Ever worked with metal

### How do I prepare?

- Please talk with your provider if you have any concerns about managing pain or anxiety during your MRI scan.
- *Women:* Tell your provider if you are pregnant or breastfeeding, or if there is any chance you could be pregnant.
- **Starting 12 hours before your scan time:** Do **not** have caffeine in any form. This includes coffee, tea, chocolate, some pain remedies, energy drinks, some sodas, and more. Check the label on all products.

### On the Day of Your Scan

- **Remove anything that might contain metal.** This includes:
  - Makeup and nail polish
  - Hairpins
  - Jewelry
  - Glasses, hearing aids, and any removable dental work
- You must change into a hospital gown before your scan. We will give you a gown when you arrive in the MRI department.

- If you have an insulin pump or a patch that delivers any type of drug, we will ask you to remove it.
- *Women:* Before the scan begins, tell the technologist if there is any chance you could be pregnant.

### **What happens during the scan?**

- The technologist will put *cardiac electrodes* on your chest.
- You will lie on a sliding table. We will place a device called a *surface coil* around your chest.
- The technologist will move you inside the MRI unit and then leave the room to take the pictures.
- You will be able to talk with the technologist at any time through an intercom.
- The entire scan usually takes 30 to 75 minutes.
- We will ask you to hold very still as each picture is taken. We may also ask you to hold your breath for many of the scans.
- Sometimes, an injection of a contrast is used to make certain tissues or blood vessels easier to see. If you need the contrast:
  - Your doctor will talk with you about it before your scan.
  - You will receive the injection about halfway through the scan.
  - It will be injected through a small needle and an intravenous (IV) line in your arm or hand vein.
- After the scan, we will ask you to wait while we check the images for quality. If needed, we will take more pictures.
- After the scan is over, we will remove the electrodes and surface coil.

### **What will I feel during the scan?**

- MRI does not cause pain.
- Some patients who have an MRI in an enclosed unit may feel confined or uneasy (*claustrophobic*). Please tell the doctor who referred you for the MRI if you are claustrophobic. You may receive medicine to help you relax.
- You may feel warmth in the area where the pictures are taken. This is normal. If it bothers you, please tell the technologist.

- You will hear loud tapping or knocking noises during the scan. We will provide earplugs and headphones with music to help block some of these sounds.
- If a contrast injection is needed, you may feel discomfort or coolness at the injection site.

## After the Scan

**If you received IV contrast:** Drink plenty of fluids the rest of the day. This will help flush the contrast out of your body. Try to drink 6 to 8 full glasses of fluid.

## Who interprets the results and how do I get them?

A radiologist skilled in MRI will review and interpret your MRI images. The radiologist will not talk with you about the results, but will send a report to your primary care or referring provider. This provider will give you the results.

You and your provider will then decide the next step, such as treatment for a problem, as needed.

You may also read your results on your MyChart page. If you need copies of your images on disc, call 206.598.6206.

### Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC - Montlake Imaging Services: 206.598.6200
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services: 206.668.2061