

## **MRI: Brain Scan**

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

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

### **What is MRI?**

*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 can easily be seen in an MRI picture.

### **How does the scan work?**

During an MRI brain scan, 6 or more sets of pictures are taken of your head. Each set lasts 1 to 6 minutes. Each set shows a cross-section (called a *slice*) of the head.

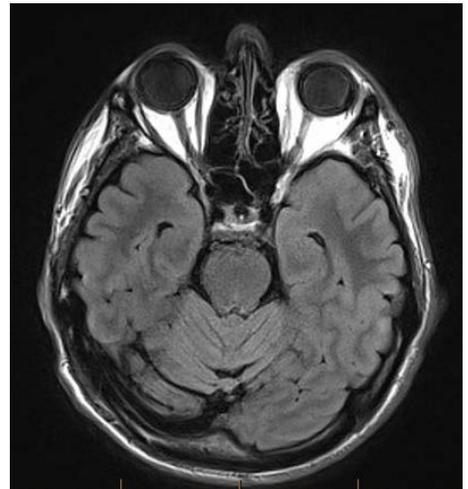


### **For Your Safety**

#### **Health Review**

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

- Have any problems with your liver or kidneys
- Need a liver or kidney transplant
- Are on dialysis
- Have allergies to any drugs or contrast material
- Have had any surgeries
- Are pregnant or may be pregnant



*MRI images of the brain.*

## **Metal Review**

We also need to know if you have any **metal in or on your body** before we give you an MRI scan. The strong MRI magnet will pull on any *ferromagnetic* object, such as iron and some other metals.

If you have any metal on or in your body, an MRI can harm you. Even small amounts that will not harm your body can distort the MRI picture.

Please tell MRI staff if you have:

- Aneurysm clips, a heart pacemaker (or artificial heart valve), an implanted port, an infusion catheter (with brand names 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

*In most cases, surgical staples, clips, plates, pins, and screws are not a risk during MRI scans if they have been in place for more than 4 to 6 weeks. If there is any question of metal fragments, an X-ray may be done to check for them.*

- Tattoos or permanent eyeliner
- Medicine patches
- A bullet or shrapnel in your body
- Ever worked with metal
- Tooth fillings or braces

*Dental work is not usually affected by MRI, but fillings and braces may distort pictures of the face or brain.*

Please also **remove any other items that might contain metal** and affect your MRI pictures. These include:

- Hairpins
- Jewelry
- Glasses, hearing aids, and any removable dental work

## **How is the scan done?**

- You will lie on a sliding table. A device called a *surface coil* will be placed around your head.
- The table will be moved so that your head is inside the MRI machine. The technologist then leaves the room and takes the MRI pictures.
- You will be able to talk with the technologist at any time through an intercom.

- Based on how many pictures are needed, the scan will take about 30 to 90 minutes.
- The technologist will ask you to hold very still while the MRI pictures are taken so that the images are clear. Even moving your eyes or clearing your throat during the sequence will cause blurry pictures.
- Sometimes, an injection of a *contrast material* is used to make some 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, you will be asked to wait until the pictures are checked for quality. More pictures will be taken if needed.
- After the scan is done, the surface coil will be removed.

### **What will I feel during the MRI 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 notice a warm feeling in the area where the pictures are taken. This is normal. If it bothers you, please tell the MRI technologist.
- If you need contrast injection for your scan, you may feel discomfort at the injection site. You may also feel a cool sensation at the site during the injection.
- 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.

### **Questions?**

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

- UWMC Imaging Services:  
206.598.6200
- Harborview Imaging  
Services:  
206.774.3105

### **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 doctor. This doctor will give you the results.