



## MRI Scans: An Overview

MV Hospital Diagnostic Imaging • Tel: 508 693-0410 ext 241

### What is an MRI Exam?

Magnetic Resonance Imaging, or MRI, is a valuable, painless, diagnostic test that allows radiologists to see inside some areas of the body, which cannot be seen using conventional x-rays. This imaging method produces a series of cross-sectional pictures. MRI technology has advanced so markedly over the past few years that it has greatly altered treatment courses. Physicians can detect many conditions in earlier stages, greatly optimizing patient outcomes.

MV Hospital Imaging uses state-of-the-art MRI scanners to take pictures with very high resolution of your body. These images give your physician important information in diagnosing your medical condition and planning a course of treatment.

### Common Uses:

Areas of the body, which may undergo an MRI scan include the head, chest, abdomen, vital organs, joints, spine or extremities such as hands, wrists, ankles and feet. Our highly sophisticated scanners also have capability to diagnose diseases of blood vessels in the brain, neck, and body.

### Safety:

All of our equipment is maintained in top condition. MRI scanners do not use x-rays. Instead, they use a very strong magnet and radio frequency. Even so, it is important to tell the technologist if there is a chance you could be pregnant. There is no evidence that MRI is unsafe for a developing fetus; however, we are still careful in the use of MRI on pregnant patients.

### Surgical Implants:

Patients with any kind of metallic implant anywhere in their body should not have an MRI unless their physician is fully aware of the device and has approved the MRI procedure. Under no circumstances should a patient who has a pacemaker have an MRI.

## Preparing for your MRI Exam

### What should I expect BEFORE my MRI Exam?

#### Medications:

It is important for you to keep to your regular medication schedule. Just let our staff know what medications you have taken prior to your MRI Exam.

#### Food and Drink:

You may eat or drink anything you like before a typical MRI test.

#### When to Arrive:

You should arrive 15 minutes before your scheduled appointment. This allows time for you to complete any necessary paper work, change your clothes for your MRI Exam and answer questions from our technologist about your medical history before we start your scan.

#### What to Wear:

For all MRI scans, you most likely will change into a hospital gown. Our changing areas are private and there is a secure locker for your clothes. It is best, however, if you leave valuable items at home. If you are wearing anything metallic, such as jewelry, dentures, eyeglasses, or hearing aids that might interfere with the MRI scan, we will ask you to remove them. You should not have your credit cards in your pockets

during the scan because the MRI magnet can affect the magnetic strip on the card. Patients who are having a brain / head scan should not wear make-up as some brands contain metal.

**Intravenous Preparation:**

Many of our patients receive a contrast agent intravenously (IV - in a vein in the arm) during their MRI scan in order to give a clearer picture of the area being scanned. If your doctor has determined that this procedure will enhance your MRI scan results, the technologist will place an IV in your arm prior to your going into the scan.

Contrast mediums, or agents, highlight your organs and blood vessels and help the radiologist to see them better. At a prior time, you may have already been exposed to a contrast medium if you have had a kidney scan, angiogram or a CT scan. In the past, most contrast agents contained iodine that could cause an allergic reaction in some people. Today, however, the contrast material is much safer. The incidence of reaction is extremely rare. In fact, most patients will feel nothing at all during or after the injection.

**What will I experience DURING my MRI Exam?**

**Scanning:**

Your technologist will bring you into the MRI scan room where you will lie down on the patient table. The technologist positions the part of your body to be scanned in the middle of the large cylindrical magnet. The scanner does not touch you, nor do you feel anything. Because the scanner does make a loud knocking noise when it takes the pictures, the technologist will offer you headphones to listen to music or earplugs to lessen the sound. The technologist leaves the room, but is in full view and communication with you through the observation window in the adjoining room. There is also voice communication at all times through an intercom. It is important for you to lie very still and at some points, you may be asked to briefly hold your breath as the picture is taken.

**Length of MRI Exam:**

Each MRI scan is individualized and tailored to each patient's needs. If you've had previous MRI exam, do not be concerned if this one is longer or shorter duration. After your preliminary scan, if you require a contrast medium, the technologist will bring you out of the magnet and inject the contrast into the IV placed in your arm. The technologist then returns you to your original position in the magnet. After all of the images are taken, we may ask you to wait a few moments while the radiologist reviews all the images so we can be sure we have exactly what your doctor wants. You may then get dressed and leave.

**What should I expect AFTER my MRI Exam?**

You have no restrictions after having a MRI exam and can go about your normal activities. If you have been given a contrast medium, remember to drink plenty of fluids to help eliminate the contrast medium from your body,

**MRI Exam Results**

All MRI exams are read by a Mass General radiologist specialty trained in MR imaging and dedicated to the specific area of interest for your study.

Rapid results are essential not only for your peace of mind, but also for your physician to begin planning your treatment immediately, if necessary. After the scan has been read, the results are sent to your physician, who will discuss them with you.