

## Magnetic Resonance Imaging - For Patients

All radiology tests require a physician's referral and written order, except for mammogram screening tests. With these tools, we can properly set the machine to achieve the goals of your doctor. To make an appointment, please call (205) 731-9380.

To schedule a mammogram screening, call (205) 731-9380. Please be prepared to provide the name of your doctor so that we can forward it for reading.

### ***Things to Avoid and Consider***

If you suffer from claustrophobia or anxiety, you may want to ask your doctor for a sedative to be given before the test. It must be ordered by your doctor, as we cannot prescribe. You can bring it with you, along with a responsible driver.

If the scan is of the abdominal area, you will be asked to fast six hours before the test to avoid nausea.

MRI exams take time. If you have small children, you will be in the exam room too long for them to be left alone. For the safety of your family, please arrange for childcare as we have no childcare available.

Since MRI's use no radiation, they are one of the safest medical tests. However, since it relies on powerful magnets for its imaging, metal objects are an issue. We are sensitive to implants and the ones we most avoid are:

- pacemaker
- cochlear (ear) implant
- some types of clips used in the brain

Since metal can interfere with the magnetic-based test, please leave all jewelry at home, or in the changing room. This includes:

- jewelry, watches, and body piercings
- pins, hair clips, metal zippers, and buttons
- removable dental work, such as bridges and plates
- pens, pocketknives, hearing aids, and eyeglasses
- Coins, credit cards, and wallets
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While many people worry about tattoos, we will screen for any potential problems before the exam. Our machines can hold a maximum weight of between 350 and 500 pounds, depending on body shape. The machine is a tube which your body must fit through. If weight is an issue, please let us know when you make your appointment.

### **What Happens During an MRI?**

#### ***You're Here***

MRI is a different kind of test. There is absolutely no radiation exposure, but it is very sensitive to medical implants, and we try to take every precaution for your safety. Once you've checked in and are ready for your exam you may be called back for a prescreening interview. If you haven't already completed one over the phone, a tech will sit down with you and go over some

questions to ensure you are safe for the MRI, regardless of how many MRIs you may have had here before. This is a great time to go over any questions or concerns you may have regarding your exam.

Don't forget to tell your technologist:

- if you are claustrophobic and think that you will be unable to lie still while inside the scanning machine
- if you have a pacemaker inserted, or have had heart valves replaced
- if you have metal plates, pins, metal implants, surgical staples, or aneurysm clips
- if you have permanent eyeliner
- if you are pregnant
- if you ever had a bullet wound
- if you have ever worked with metal (i.e., a metal grinder)

### **On Site Prep**

Once you have been screened you will be taken to a dressing room to properly dress you for your test. This will involve removing jewelry, cell phones, wallets, watches, and possibly change clothing. All your possessions will be kept in the dressing room, and you will carry your key to keep your belongings secure. A medication called contrast may be ordered for your test. It will be given through an IV or orally, along with any sedating medicine your doctor might have requested if you are claustrophobic. You can bring a prescription with you and take it before the exam.

### **Contrast**

Sometimes, to get the clearest possible picture, your doctor will order "contrast." This dye can be taken by mouth, or through an IV. It enters the body and highlights the organ or tissue being scanned.

In the past, many thought that an allergy to shellfish was a predictor of an increased risk of a reaction to a contrast agent, presumably because both shellfish and contrast agents contain iodine. Such a relationship is clearly not true. Organic iodide as found in shellfish is an essential element, so individuals cannot be allergic to it. The presence of a history of multiple severe allergies does increase the risk of a reaction following contrast agent injection, but only by a very small percent.\*

Patients with kidney failure or other kidney problems should notify their physician. In rare cases, MRI contrast has been associated with a condition called Nephrogenic Systemic Fibrosis, thought to be caused by the failing kidneys inability to filter the contrast out of the body in a normal time frame. Before receiving MRI contrast, a test will be run to check kidney function.

Rarely, someone may have an allergic reaction. Tell your technologist immediately if you have itching, hives, shortness of breath, or anything else unusual.

If you have experienced a reaction in the past, you may be asked to premedicate to prevent a second one. If your reaction is severe, you may not be able to take the contrast. However, many tests do not require it.

*\* Frequently Asked Questions: Iodinated Contrast Agents. Michael A. Bettmann 2004 RadioGraphics, 24, S3-S10.*

### **Your Exam**

You will enter a large room with an MRI scanner that looks like a hollow tube. A narrow table slides into the tube, here is where you will lay. An IV line may accompany you into the room. You will receive a set of ear plugs for hearing protection and may

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communicate with the technologist through an intercom in the scanner. You will also get a call bell that you may ring anytime you need the technologist.

Now that you're prepped and ready it's time for the actual exam. All tests vary but you should know that you will lie down on a table. MRI's have a receiver, called a "coil," near the area we are examining and slide into the magnet. The magnet will then make loud clicking or buzzing noises; this is the machine acquiring the images.

Your arms will be at your side. The space is small and enclosed, but there is a light on inside and both ends are open.

If you are receiving contrast, you may feel it when it begins to flow into your body. You may feel pressure at the IV site but if it stings or burns, or is painful, please alert your technologist because this could mean the contrast went into your tissue and not your vein.

We may ask you to hold your breath at times. This will enable you to hold especially still for the best image of your body. You will be allowed to breathe after a few seconds.

The test will take 30 to 45 minutes per body part. It is of the utmost importance that you be as still as possible during the test. Just like normal pictures any movement will cause blurring.

The technologist will be in another room, but will be watching you for the whole exam to ensure your safety and a successful exam. When the exam is over, you will be helped from the table, and the IV removed if contrast was used.

If you did not receive a sedative, you will be allowed to leave right after the exam. If you did take a sedative, be sure a responsible driver comes with you. You should not drive for the rest of the day.

## ***Follow Up***

If you have a UAB Doctor he/she can review your images as soon as they upload to the network. It takes approximately 24 business hours to generate the official Radiologist report.