

MRI

(MAGNETIC RESONANCE IMAGING)

What is an MRI exam?

Magnetic resonance imaging (MRI) is a test that uses a magnetic field and pulses of radio wave energy to make pictures of organs and structures inside the body. In many cases MRI gives different information about structures in the body than can be seen with an X-ray, ultrasound, or computed tomography (CT) scan. MRI produces a series of cross-sectional pictures. MRI technology has advanced so much in recent years that it has greatly altered treatment courses. Physicians can detect many conditions in earlier stages, greatly optimizing patient outcomes.

Common uses

MRI provides good contrast between the different soft tissues of the body, which makes it especially useful in imaging the brain, muscles, the heart, and cancers. Areas of the body that may undergo an MRI scan include the head, chest, abdomen, vital organs, joints, spine, or extremities such as hands, wrists, ankles, and feet.

Safety

MRI scanners do not use X-rays. Instead, they use an extraordinarily strong magnet and radio frequency. Because of this powerful magnet it is vital that you remove all metallic belongings in advance of an MRI exam, including watches, jewelry, and items of clothing that have metallic threads or fasteners. Please tell the technologist if you are, or might be, pregnant. In certain cases, you may not be able to have an MRI and will need to discuss alternatives with your doctor.

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.

What should I expect BEFORE my MRI exam?

Medications

Continue taking your current medications as normal unless specified by your physician. Let the MRI technician know what medications you have taken prior to your MRI Exam.

Food and drink

If you are having your abdomen scanned it may be necessary for you to fast for a few hours before the test and to drink some contrast when you arrive for your test. Contact the MRI department where your exam is scheduled and ask if your exam requires fasting. Otherwise, there are no restrictions on what you may eat or drink.

When to arrive

You should arrive 15 minutes before your scheduled appointment.

What to wear

For MRI scans, you should wear comfortable clothing; however, you may have to change into a hospital gown. 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. Makeup and nail polish that contain metal particles should be removed if applied to the area undergoing the MRI examination.

Claustrophobia

Some patients who undergo MRI examinations may feel confined, closed-in, or frightened. Today, many patients avoid this problem when examined in one of the newer MRI units that have a more "open" design. If patients are properly prepared and know what to expect, it helps complete the exam without distress.

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Intravenous preparation

Patients may receive a contrast agent intravenously 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.

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. You may bring your own CD to listen to. 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 always voice communication 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

Because each MRI scan is tailored to each patient's needs, scanning time varies. Contact the MRI department where your exam is scheduled to find out how long your exam is estimated to take.

Contrast medium

If you are over 60 or have kidney disease, diabetes, lupus, or multiple myeloma, you may need a blood test beforehand to make sure the contrast will be safe for you.

What should I expect AFTER my MRI exam?

You should inform your radiologist if you are breast-feeding at the time of a scheduled MRI study if you may need to receive an MRI contrast agent. One option under this circumstance is to pump breast milk before the study, to be used until injected contrast material has cleared from the body, which typically takes about 24 hours. The radiologist will provide additional information to you regarding this matter. Otherwise generally there are no restrictions after having a MRI exam and can go about your normal activities. To help eliminate the contrast medium from your body, drink plenty of fluids.

MRI results

We understand that quick results are important for our patients. Exams are typically read within 24 hours and results will be sent to your physician who will go over them with you.