

A Patient's Guide to MRI

What is Special About MRI?

MRI is painless and uses no ionizing radiation. There are virtually no side effects. Extensive testing shows that the magnetic fields in MRI are not harmful in any way. MRI is particularly valuable to evaluate disorders of the brain, neck, spine and joints. Radiologists are continually expanding the role of MRI in diagnosing diseases.

How Does MRI Work?

MRI uses two forces, a magnetic field and radio waves, which are found everywhere in our environment. The patient is placed within a high energy magnetic field. As the MRI unit sends radio signals, receiving antenna coils detect weak radio waves being emitted from the patient. These signals are then recorded and processed by computers into images.

Does McFarland Clinic Have an Open MR machine?

Yes. In fact, McFarland Clinic patients are some of the first in the Midwest to utilize the newest open MRI technology. The Philips Panorama 1.0T MR machine was installed in the West Ames location at 3600 West Lincoln Way during the fall of 2006. In the past, open MR machines were sometimes known to sacrifice image quality in order to provide comfort to patients who may be claustrophobic. This open MR machine produces the same high-quality images and similar scanning times as would be available with the closed MR with three times the space for patients.

How Do I Prepare?

No restrictions in daily routine or diet are necessary. Take any medication as usual. Clothing may be worn as long as it doesn't have metal on it such as zippers or snaps. Many patients find it easiest to wear a comfortable sweatsuit. Gowns are available at the patient's request.

You cannot be examined if you have a pacemaker or other electronic implant. Prosthetic devices and various types of metal clips also should be reported and may prevent the use of MRI in certain cases. A thorough interview is compiled before the examination. If you have any doubts or questions, be sure to ask!

Are You Wearing Any Metal?

Before entering the scanning suite, certain objects must be removed: coins, jewelry, watches, dentures, partial plates, glasses, hearing aids, or credit cards. Just remember that no metallic object can go into the scanning suite.

What Should I Expect During the Scan?

Although magnetic resonance imaging is a very advanced medical technique, the MRI exam is probably one of the easiest tests you will experience. The technologist will see that you are comfortable on a contoured, cushioned table that will move into the center of the cylinder housing the magnet.

The exam takes between 30 and 90 minutes, depending on the type of information your doctor needs. It is important to lie as still as possible while the images are acquired. Any motion will affect the sharpness of the images.

Technologists will be outside the examination area and can see and hear you at all times. Special intercoms enable you to contact operators if necessary.

In certain studies, the radiologist may choose to administer a contrast agent intravenously to make details clear. The special contrast agent used for MRI has proven to be extremely safe with no known incidence of severe allergic reaction.

What Happens After the Scan?

Because there are no side effects, you may leave immediately following the procedure. The radiologist will study the MRI images and report the results to your physician. Your doctor will schedule a time with you to discuss these results and what they mean in relation to your health.