



## **What Is MRI?**

Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to provide clear and detailed images of internal organs and tissues. MRI is different than other radiology procedures because it does not use radiation to obtain images. MRI requires specialized equipment and registered technologists. The radiologists performing your MRI have received additional training through Fellowships and Board Certifications. PENRAD Imaging uses high field units to perform MRI exams, ensuring the best possible image quality. Many patients feel reassured about their test knowing that MRI may replace the need for exploratory surgery. Healthcare providers are excited about MRI because it is safe, painless and provides information previously unavailable.

## **How MRI Works**

Using a large magnet, radiowaves, and a computer, an MRI produces extraordinarily detailed images of the body. An MRI exam consists of multiple sequences that each show a cross section of the body in one of several planes (right to left, front to back, upper to lower). Depending on the complexity of the study, your exam may take between 25 and 60 minutes, though more time may be required for very detailed exams. A contrast material may be used for certain examinations to enhance the visibility of specific tissues and may be placed in an arm or hand vein. MRI contrast materials are unlikely to cause an allergic reaction.

*If you have questions/concerns, please call PENRAD Imaging at 785-9001*



## **Preparing for Your MRI Test**

Most MRI examinations do not require specific preparation but do include certain general precautions.

When you schedule your exam, let us know if you are claustrophobic, and appropriate arrangements will be made. Remove loose, foreign or metal objects prior to exam (such as jewelry, dentures, watches, credit cards, body piercing rings, hair pins, trans-dermal patches).

Continue taking prescribed medications. No metallic snaps, buttons, or zippers on clothing; wear sweat pants, t-shirts or an exam gown. Your hair should be dry and free of wet styling gel. You may be asked to remove eye-makeup if the exam involves the head or neck.

You must let the technologist know if you are – or suspect you might be – pregnant. MRI is generally not recommended during the first 12 weeks of pregnancy, however there is no evidence that a hazard exists. In certain cases, a scan may be advisable since it is safer than X-rays or CT scans.

## **Common Sites for MRI**

Brain

Spine

Extremities & Joints (particularly knee, shoulder, wrist), including sports injuries

Chest, Abdomen, and Pelvis

The Circulatory System – MR Angiography (MRA)

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Cardiac (heart) Imaging

Breast Imaging

### **Sedation Protocols**

Registered Nurses are on staff at PENRAD Imaging to monitor all sedation exams and provide additional continuity of care for our patients.

#### **Adults:**

Intervenous sedation can be provided by PENRAD when ordered by your healthcare provider

Oral sedation can be prescribed by your healthcare provider and taken 30 minutes prior to your exam. Someone must drive you home since you cannot operate a motor vehicle after sedation

#### **Children:**

Children under six months of age usually do not need sedation if they arrive for their procedure tired and hungry. After you arrive, you will be asked to feed the baby and when he (she) falls asleep, the scan will begin Most children between six months and four to five years of age need to be sedated. Pediatric sedation is not provided at PENRAD Imaging

Most children over the age of four or five are able to complete their MRI without sedation

Metallic devices may prevent you from receiving an MRI exam – examples of these devices include:

pacemakers and/or pacer wires, aneurysm clips, implanted nerve stimulator, embedded shrapnel,

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medication pumps, inner or middle ear implants.

### **During the MRI**

You will be asked to lie on the movable examination table while the technologist places a receiver coil

near the body part being examined. Occasionally, the technologist will use another device to monitor your breathing or heart rate. Depending on your study, a technologist or nurse may inject a contrast agent into your vein. The exam table then slides into the magnetic housing. During the scan you will hear noises ranging from tapping to grating which can be quite loud. The technologist observes you during the exam and will communicate with you via intercom. For your comfort, the MRI is well ventilated and stereo headphones or earplugs are provided. It is important that you remain completely still during the study, since even slight movements will reduce image quality. A family member can accompany you during your exam since there is no risk from radiation.

### **After an MRI**

A Board Certified Radiologist will interpret your MRI study and provide a formal report as your permanent medical record. The formal exam results will be sent to your referring healthcare provider, who will in turn discuss the results with you. At this time, your healthcare provider may recommend further testing, or suggest a treatment plan for your condition.

Feel free to contact our facility or check with your healthcare provider for additional information.

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