

# Magnetic Resonance Imaging (MRI)

An MRI is used to differentiate soft tissue from other structures, such as tumors by creating cross sectional images using magnetic energy and radio waves. This technique is especially useful in identifying damage to ligaments and/or cartilage and is safe during pregnancy. Because this type of imaging uses a magnetic force, there must be no metal in the room or on the patient during this procedure or inside the patient, i.e., aneurysm clips, metallic implants, electronic devices, hearing aids, or shrapnel. Pacemakers, unless specifically approved for MRI use, are contraindicated in this type of imaging. An MRI can take 30 to 90 minutes and requires that the patient remain very still. Anti-anxiety medications can be administered to patients with claustrophobia though patients with extreme claustrophobia may be considered for an open MRI procedure.



**PLAY PICMONIC** 

#### Procedure

## Internal Body Images

Internal Body Images

An MRI is designed to create a visual of internal, soft tissue structures by creating cross sectional images.

#### **Detects Variations of Soft Tissues**

**Detective with Variation of Soft Tissues-boxes** 

Specifically, MRI is used to differentiate soft tissue from other structures such as tumors. This technique is especially useful in identifying damage to ligaments and/or cartilage.

#### Considerations

## No Metal Objects

### No-sign Metal Object

There can be no metal in the room during an MRI. Because this diagnostic tool uses a magnetic field, all metal objects such as snaps, jewelry, or zippers must be removed. Prior to the procedure, a patient should be asked if they have a metal implant, implanted electronic device, hearing aid, or if they have any metal shrapnel remaining in their body from a previous injury.

### No Pacemakers

#### No-sign Pacemaker

A pacemaker can be negatively affected during an MRI. Unless specifically approved for MRI use, pacemakers are contraindicated in this type of imaging, due to the risk of tissue damage and interruption of the pacemaker settings.

#### Contrast is Non-Iodine

Contrasting-con with Nun-lodine

The contrast that is used with an MRI does not contain iodine and does not pose a risk to patients with iodine or shellfish allergies.

#### Safe During Pregnancy

Safe and Pregnant-woman

Patients who are pregnant may safely undergo an MRI, without risk to the fetus.



## **Long Procedure**

### Long-ruler Procedure

An MRI can take 30 to 90 minutes, depending on the area that is being scanned. During this time the patient must remain still, as this type of imaging is very sensitive to movement. An open MRI may be used for those patients who have a large abdominal girth or who are severely claustrophobic.

### **Antianxiety Medications**

## Ant-tie Anxiety-bag

Anti-anxiety medications may be indicated for patients with claustrophobia. Ear plugs can also be used to block out the loud noises produced by the MRI machine.