



## **MAGNETIC RESONANCE IMAGING OR MRI**

Magnetic resonance imaging or MRI is a technique for creating pictures of the organs inside your body to help doctors with your medical evaluation. MR imaging uses special properties of magnetic fields and atoms inside the body to allow a computer to create pictures in a different process from the way x-rays, CT scans and ultrasound images are made.

The MRI machine is basically a large magnet with a central opening. A computer uses the signals sent by this magnet and radio waves to make a picture of the body appear on a screen. There are no known harmful effects from exposure to the magnetic fields or radio waves used in making MR images.

Due to the strong magnetic field produced by the MRI, it cannot be used on patients who have cardiac pacemakers. Most patients with vascular clips, eye implants, heart valves or implanted electronic devices cannot undergo MR examination. The presence of metal in your body may affect a portion of the MR image but please be sure to inform me or the radiologist if you have any metallic prostheses, magnets in your dentures, cochlear implants, artificial heart valves or if you are pregnant.

**Preparing for MR examination:**

Unless I have given you other instructions you may eat before the test and should continue to take your usual medications. When you arrive for your MR examination you will be given a hospital gown and robe to wear. You will be asked to remove your jewellery, watches, keys, hair pins, hearing aids, wallet and any other accessories. This is necessary so that metallic objects in these items will not affect the quality of the MR picture. This includes wigs and dentures.

**During the examination:**

Once you are in the scan room you will be placed on a motorised table, usually lying on your back. This table slides into the opening of the magnet and depending on the parts of your body to be examined, a small device may be placed around a portion of your body. It is very important that you are as comfortable as possible at the beginning of the examination as it is essential that you lie still during the exam. The scan is very safe and there is nothing to be afraid of and the technologist will monitor you from another room. You will be able to talk to the technologist by microphone and you will not feel the magnetic field or see any moving parts around you. You will hear repetitive tapping, thumping sounds or other noises during the MR scan. These sounds come from the internal part of the magnet and will be dampened by the ear plugs you are given prior to the exam. Occasionally patients will require some sedation if they become claustrophobic.

Each examination consists of a number of scans to get the information required and the examination can take between 30 and 90 minutes. While the scan is taking place, you should breathe quietly but comfortably and not move your head or body. Most people find that after several minutes of imaging they become quite relaxed and have few problems lying still for the required period of time. Often the radiologist will need images made after a special contrast agent has been given. These contrast agents are only used in MR imaging and are different from those used in kidney tests or CT scanning because they do not contain Iodine. This can be injected either through a small needle into a vein in your arm or for orthopaedic purposes usually directly into the joint itself. There is a very small risk of allergic reaction or infection to these injections but the information gained by using this dye is extremely important in determining your treatment.

**When the examination is over:**

When your examination is finished you may leave. A radiologist will review the images made during your examination and report the findings to me.

The MRI is a high quality medical examination. It is expensive and the Federal Government has restricted which scanners can give a rebate for this examination. Please note that the magnetic field interferes with your credit cards and may ruin the timing mechanism in some watches.

Please contact my office if you have any further queries about this examination

D. SHER	knee shoulder and elbow surgery	J.GOLDBERG	shoulder surgery
P. WALKER	knee & hip surgery	C. WALLER	hip & knee surgery
A.LOEFLER	hip, knee & spines	J.NEGRINE	foot & ankle surgery
A.TURNBULL	hip & knee surgery	W.BRUCE	hip & knee surgery
		R.PATTINSON	paediatric & general
		I. POPOFF	shoulder, elbow and knee
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