

FAQs -

MRI

WHAT IS AN MRI?

MRI stands for Magnetic Resonance Imaging. It is a painless diagnostic procedure which allows physicians to see detailed images of the internal structures of your body without using x-rays. It uses a large magnet, radio waves and a computer to scan your body.

WHY IS MRI IMPORTANT?

This technology is important because MRI scans illustrate more clearly than ever before, the difference between healthy and diseased tissue, and can provide important information about the brain, spine, joints and internal organs. It can lead to early detection and treatment of disease and has no known side effects. Consequently, your physician will be better able to determine the most appropriate treatment for you.

ARE THERE ANY CONTRAINDICATIONS TO HAVING AN MRI?

Yes. There are contraindications to having an MRI. Due to the strong magnetic field, some patients with certain types of surgically implanted devices or objects cannot be scanned. Your physician will review your medical history and determine whether or not an MRI scan can be performed on you.

CAN I HAVE AN MRI IF I AM PREGNANT?

It is considered wise to avoid scanning during the first trimester of pregnancy unless deemed absolutely necessary by the physician. While no adverse side effects have been proven from performing MRI during pregnancy, whenever possible the MRI should be postponed until the pregnancy is over.

HOW DOES AN MRI SCANNER WORK?

Your body is composed of small particles called atoms. Hydrogen atoms, i.e. in water, make up 95% of the body. Normally, these hydrogen atoms within your body spin around at random. However, when you are placed inside a strong magnetic field, the hydrogen atoms line up and spin in the same direction as the magnetic field. When a radio wave is transmitted through the body, the hydrogen atoms give off a signal. That signal, with the aid of a computer, becomes the source of MRI information to produce two-dimensional images or three-dimensional volumes of a part of your body.

HOW LONG DO I HAVE TO WAIT FOR AN APPOINTMENT?

The demand for an MRI is high and the waiting period for an MRI appointment is approximately three months for most exams. Urgent requests and emergencies are incorporated into the schedule as needed.

WHAT SHOULD I DO TO PREPARE FOR MY EXAM?

Some MRI procedures require patient preparation before the examination. If you are claustrophobic, please ask your doctor to prescribe medication for you, and bring it with you on the day of your appointment. Also, you will need to have a ride home.

WILL IT HURT?

No. You will not feel anything. A call button will be given to you before the exam is started. It will allow you to maintain two way communication with the technologist at any time during the exam.

HOW SAFE IS THE MRI CONTRAST DYE? I HAD A REACTION TO THE DYE WHEN I WAS GIVEN IT IN CT. CAN I STILL BE INJECTED WITH MRI DYE?

MRI contrast agents are very safe. They are different from those used in CT, and are often used when CT contrast agents pose a risk to the individual.

WHAT AREAS OF THE BODY CAN YOU SCAN?

Any part of the body can be scanned on the MRI scanner. The body part being scanned must be in the centre of the scanner and also near a piece of the scanner (called a coil) designed to pick up information from the body, and is usually shaped so that the body part will just fit into it. MRI machines come with many different coils designed for imaging different parts of the body: knees, shoulders, wrists, head, neck, etc.

WHAT IS AN MRA?

MRA stands for Magnetic Resonance Angiography, a special type of MRI that looks at blood vessels and blood flow in virtually any part of the body with or without injection of contrast. A major advantage of MRA is that it can be performed as a non-invasive procedure which has little risk of complications if compared with conventional angiography or other related procedures. As a result, MR Angiography is increasing in demand.

WHAT IS THE DIFFERENCE BETWEEN MRI AND CT?

Both MRI and CT make cross-sectional images (slices) of almost any area of the body using a sophisticated computer system. The major difference is that while an MRI uses a large magnet and radio waves to produce images, a CT scanner uses ionizing radiation. With the MRI studies, there is no exposure to ionizing radiation and there are no known side effects. The systems complement each other well as they both have their inherent strengths and weaknesses. CT, however, can only directly acquire transverse and coronal images. Whereas MRI can directly acquire slices in any plane and is superior when it comes to soft tissue contrast.

CAN YOU SCAN MY WHOLE BODY WHILE I'M IN THERE?

No. With the MRI scanner, we can image almost any part of the body; however, each scan is limited to a specific body part or area. It takes from 20 to 60 minutes to scan each area.

WHY DO YOU NEED TO KNOW ABOUT METAL IMPLANTS IN MY HEAD, IF I'M HAVING MY BACK SCANNED?

Although we focus on one specific area when we scan, your whole body does go into the scanner. We need to know about metal anywhere in or on your body because the magnet is never turned off and just by entering the scan room you come within the magnetic field. Certain metallic devices interfere with the scan and their presence during the scan may cause injury to you. It is very important for us to know if you have a pacemaker or other implanted electrical device, a history of heart or brain surgery, cerebral aneurysm clips, shrapnel or a history of getting metal fragments in your eyes.

