

How does the MRI scanner work?

Your body is composed of small particles called atoms. Most of the body is composed of Hydrogen atoms that under normal circumstances spin around at random. However, when you are placed within a strong magnetic field, the hydrogen atoms line up and spin in the same direction as the magnetic field. When a radio frequency wave is transmitted through the tissues in the body the Hydrogen atoms produce a signal. These signals are measured to produce an image.

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.

What causes the noise in the scanner?

The noise that the scanner creates is the electrical current rising within the wires of the gradient magnet. The current in the wires are opposing the main magnet field; the stronger the field the louder the gradient noise.

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.

What is the difference between MRI and CT?

Both MRI and CT create cross-sectional images of the body. The main difference is that MRI uses a large magnet and radio waves to produce images whereas a CT scanner uses ionizing radiation. 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 entire body while I am in there?

No. The MR scanner can scan almost any part of the body but each scan is limited to a specific area. It can take from 30-60 minutes to scan each area.

Why is my whole body in the scanner if you are only scanning my head?

The area of the scanner that creates the images is located in the centre of the magnet and is called the isocentre. Therefore, in order to scan your head most of your upper body will be in the scanner. The same is true when imaging the spine and upper extremities.

Does the MRI table have a weight and size limit?

Yes, the table weight limit is 250kg with a maximum width of 70cm. For optimal images it is necessary for the area being examined to be within the magnet's isocentre which is located directly in the centre of the scanner. For patient specific questions please contact our MRI bookings department.