



Cape Universities Brain Imaging Centre (CUBIC)

University of Cape Town

Magnetic Resonance Imaging (MRI)

What is MRI?

MRI makes use of magnetic fields and radio waves to examine internal structures of the body in any number of planes. The procedure is non-invasive and completely harmless. No ionising radiation (such as X-rays) or radio-active material are utilised during the study. MRI is particularly useful for imaging soft tissue such as the brain. As well as allowing tissue structure to be visualised in very high detail, it is also capable of measuring certain characteristics of brain function.

The powerful magnetic field necessitates several safety measures: If you wear a pacemaker, infusion pump, certain metallic clips, heart valves or orthopaedic prosthesis, these must be brought to the attention of the radiographer. Before the examination, all metal objects including credit cards and watches should be removed.

What can I expect?

The procedure requires that you lie on your back with your head in a "tunnel" which is very similar to a CAT scan machine. The tunnel is open on both sides and is well lit and ventilated. You will at all times be in intercom contact with the radiographer, who will also be able to see you at all times.

The examination will take about 45 minutes and will be accompanied by a series of loud knocking sounds. There are no moving parts within the scanner, and the knocking sounds occur due to vibration of the machine in the magnetic fields. In some instances, the intravenous administration of contrast agent is also necessary, but you will be notified in advance about this. Finally, it is important that you do not move at any stage during the examination as this makes the images blurry.
