

Magnetic Resonance Imaging

Magnetic resonance imaging or MRI is an important tool in the diagnosis and evaluation of neurological diseases. An MR scanner is a device in which a patient lies within a cylindrical tube that contains a large, powerful magnet. The magnet is combined with radio-waves linked to a computer to produce remarkably clear and detailed images of the body. Unlike CT scans or traditional X-rays, MRI does not use ionizing radiation.

MRI is particularly useful in imaging of the spinal cord and brain. It is used for both diagnoses of neurologic disease and in the monitoring of some conditions such as Multiple Sclerosis. For some MRI studies, a contrast agent, usually gadolinium may be used to enhance the visibility of certain tissues. The contrast agent is given via a small intravenous (IV) line placed in a vein in your arm.

Before an MRI, eat normally and take your usual medications unless otherwise instructed. You will be provided with a hospital gown to wear or instructed to wear loose clothing without metal fasteners. As the machine contains a powerful magnet it is important that you remove all accessories, such as jewelry or hair pins/clips. Metal objects may interfere with the magnetic field during the exam, affecting the quality of the MRI images. The magnetic field may also damage electronic items.

The duration of the scan depends on what your doctor wants to image. A scan can last from only a few minutes to over an hour.