

Introduction

Magnetic Resonance Imaging (MRI) makes use of a strong magnet, radio waves and computer system to form pictures or images of the body. A large part of your body is composed of water which contains hydrogen atoms. These atoms are slightly paramagnetic. By using a combination of magnetic fields and radio waves, we are able to detect signals from them. These signals are then converted by the computer into detailed images of various structures of the body. MRI is safe and there are no known hazards. However, if you have the following items and/or conditions, they are potentially hazardous and may interfere with the MRI examinations. Please inform our staff before examination.

- Cardiac Pacemaker / Defibrillator / Aneurysm Clip / Prosthetic Heart Valve / Neurostimulator / Shunts / Cochlear Implants / Hearing Aid / Shrapnel / Implanted Perfusion Pump / Metal Device in Bone or Joint / Ocular Metal Foreign Body / Wire Sutures
- Pregnant or maybe pregnant

The Operation / Procedure

1. The whole procedure is monitored by the radiology staff.
2. During the examination, the patient will lie awake on a sliding couch inside the magnet. Blankets will be provided to keep warm and comfortable.
3. Patient may receive an injection of contrast medium that enables the internal organs to be better shown.
4. A pulse monitor and / or electrocardiogram sensors may also be attached.
5. The actual scanning procedure occurs intermittently, keep still and relax throughout the examination.
6. Patient will hear a regular drumming noise during the scanning. Ear plugs will be provided.
7. Sedative will be administered to paediatric patients in order to obtain images without body movement.
8. Medical staff will be in constant contact with patient during the examination, and patient may talk to the staff.
9. The examination will take about one to two hours, but occasionally it may take longer.

Before the Operation / Procedure

1. A written consent is required.
2. Paediatric patients should be accompanied by adults (consent form should be signed by parents or legal guardian).
3. Patients attending head scans should use minimal make-up, especially eye make-up, as it will be shown on the images.
4. All metallic objects (e.g. keys, jewellery, watches, pins, eyeglasses and hearing aids) must be removed.
5. Credit cards must also be left in the locker as the magnetic data will be erased by the magnetic field.

After the Operation / Procedure

Eat or drink as usual after the examination.

Risk and Complication

MR contrast medium has been used safely in millions of patients. Serious life-threatening reactions are rare, and only been reported in about 1 in 400,000 patients. Minor reactions, such as headache or nausea occur in about 2% of patients.

Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

Reference

Smart Patient Website by Hospital Authority: Magnetic Resonance Imaging (2004)