



British Society of GI and Abdominal Radiology

MRI of the Liver

Patient Information Leaflet

Introduction

This leaflet tells you about Magnetic Resonance Imaging (MRI) of the Liver, a test to look at the structure of your liver. It explains how the test is done, what to expect, and the risks involved. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

What is MRI of the Liver?

Magnetic Resonance Imaging (MRI) of the Liver is a non-invasive way of looking inside your abdomen at your liver and related structures.

An MRI (Magnetic Resonance Imaging) scanner is a short tunnel that is open at both ends. It uses a powerful magnet, radiowaves and a computer to produce images of the internal structures of the body. MRI does not use ionizing radiation (x-rays).

The scanner is operated by a Radiographer, who is a professional trained to carry out X-rays and other imaging procedures. The pictures are displayed on a computer workstation for examination by the Radiologist, who is a doctor specially trained to interpret the images and carry out more complex imaging examinations.

MRI scans provide good detail of internal organs, blood vessels and soft tissues so are often the preferred method of diagnosing and assessing a wide range of medical conditions such as cancers, infection, inflammation, cardiovascular disease, trauma and musculoskeletal disorders. It is considered the best imaging test for diseases involving the liver.

What do I have to do before my MRI scan?

Dietary preparation.

You may be asked to starve for 6 hours before this test though there is often no need for any dietary preparation

Taking tablets and medicines

You should continue to take all your normal medication.

Females

Females are asked to contact the Radiology department if you suspect that you may be pregnant. There is no evidence that MRI is unsafe in pregnancy, but as a precaution, we do not perform MRI on pregnant women unless it is essential.

MRI Safety Questionnaire

The magnetic field used for MRI scans is very strong and can affect metal or electronic implants. Please take time to read through and complete the attached MRI Safety questionnaire, which asks about any metal implants, such as artificial joints and stents, or electronic devices, such as a pacemaker, that you may have inside you. If all of the answers are no then please bring the completed questionnaire to your appointment. If, however there are answers that are yes, then please return the completed questionnaire immediately to the Radiology department or telephone the MRI appointments desk for advice.

Where do I go when I arrive at the hospital?

Please report to the reception desk in the Radiology department with your appointment letter. You will be asked to sit in the waiting area until called by a member of staff.

A member of the team will explain the test, go through the MRI safety questionnaire with you, and answer any questions.

You will be shown to a private cubicle and asked to change into a clean gown. You may be allowed to wear your own clothing if it is loose-fitting and has no metal fasteners, zips or buckles. Please do not wear items of jewellery, as they may need to be removed prior to the scan. Your clothes and valuables will be secured in a locker until after the procedure.

Can I bring a relative/friend?

You may bring a relative or friend with you to the appointment but, for reasons of safety, they will not be able to accompany you into the examination room, except in very special circumstances. If the patient is a young child or is un-cooperative, a parent or health worker may stay in the scanner room.

If you need an interpreter please tell us when you receive your appointment so that we can arrange this.

Please let us know when you arrive for your test if you have any of the following conditions:

- Diabetes
- Kidney disease
- Known allergies

What happens during the MRI scan?

You will be taken into the MRI Scanning Room and asked to lie down on the moveable scanner table, which is moved into the scanner ring. A receiving device will be placed around your abdomen. For an examination of the liver, your abdomen needs to be placed in the centre of the ring, so that your head will be near its opening. The MRI scan will then be performed and takes approximately 20-30 minutes to complete. You will be asked to remain still whilst the scans are taken. You will be asked to breathe in and to hold your breath at regular intervals. At certain times during the procedure, the MRI scanner will make a loud knocking noise caused by the magnets in the machine being turned on and off. You may be given earplugs or headphones to wear.

Usually a contrast material will be required during the examination. This will require a small tube, called a cannula, to be inserted into one of the veins in your arm. Additional scans will be performed after the contrast has been administered.

You will be alone in the MRI room during the scan but the Radiographer will be able to see, hear and speak with you at all times.

What happens after the test?

Normal activities may be resumed as soon as the scan is finished.

Are there any risks?

MRI is generally regarded as a very safe test. It is non-invasive and does not involve ionizing radiation. There is no known adverse effect of the magnetic field and radio waves used in MRI on living tissues.

A small proportion of people (2 – 5 %) find MRI examinations difficult because of the partly enclosed nature of the scanner, causing claustrophobia. Occasionally, mild sedation (relaxing tablets or injections) may be given to patients who know that they will find the close surroundings of the magnet uncomfortable. This treatment reduces the anxiety about being in a confined space. If you are given a sedative injection, a plastic peg will be put on one of your fingers so that your pulse and breathing can be monitored throughout the examination. You are advised not to drive, travel alone or return to work for the rest of the day. If you know that you will need a sedating injection for the MRI exam, please arrange for someone to accompany you home after the test.

There is a slight risk of an allergic reaction if contrast material is injected. A Radiologist or other clinician will be available to assist if you experience any symptoms of an allergic reaction. Such reactions are usually mild and easily controlled by medication.

Despite these slight risks, your doctor believes it is advisable that you should have this examination, and do bear in mind there are greater risks from missing a serious disorder by not having your scan.

How do I get my results?

A specialist Radiologist will review the images from your MRI scan and send a report to your doctor. Your GP or hospital Consultant who referred you for the test will see you to discuss the results.

Any further questions?

We will do our best to make your visit as comfortable and stress free as possible. If you have any further questions, or suggestions for us, please let us know.

If you would prefer information and advice in another language, please contact the Radiology department.

Further Information

For general information about Radiology departments, visit The Royal College of Radiologists' website: www.goingfora.com

For health advice or information you can call NHS Direct on 0845 4647 or visit the website: www.nhsdirect.nhs.uk

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