

The ROYAL MARSDEN

NHS Foundation Trust

MRI scan of the small bowel with Mannitol

Diagnostic Radiology

Patient Information



NHS

Introduction

You have been referred for an MRI (Magnetic Resonance Imaging) scan of the small bowel. The MRI scanner gives very detailed cross-sectional images of the body without using ionising radiation.

What is MRI?

The MRI scanner uses a strong magnetic field and radio waves to provide very detailed images of the body by picking up signals sent out by water molecules. The scanner produces a variety of loud noises which are made by magnetic coils that switch on and off during the scan. These coils measure the signal coming from your body to create the images.

The strong magnetic field used means that some people may be unsuitable for scanning.

It is important that you contact us prior to your appointment if you:

- **have a pacemaker or have ever had any heart surgery**
- **have had brain surgery**
- **have any metallic/electronic implants eg stents, clips, shunts**
- **have had any surgery in the last 8 weeks**
- **think you may be pregnant or are breastfeeding.**

These may mean that you are unsuitable for scanning **even if** you have had MRI scans before.

If you have any questions or concerns about the scan or require special assistance, please phone the number on your appointment letter to speak with the MRI department.

Is there any preparation?

You must not eat any food for **six hours** before your scan arrival time. During this time, you must **only drink clear fluids**.

Please bring a change of clothes, ideally light clothes with short sleeves, and without pockets or metal parts, such as metallic fastenings, to change into for the scan. Cotton pyjamas or a T-shirt and cotton leggings are ideal; alternatively we can provide you with a hospital gown.

Before the MRI scan, the radiographer will go through several questions about your medical history and any implants that you may have, to make sure that you are safe to have the MRI scan.

Please avoid wearing jewellery. Lockers are provided for your valuables, if required.

To visualise the small bowel well, it must be full of fluid. You will have to steadily drink one litre of a medicine called Mannitol which is mixed with water, allowing the bowel to fill with fluid. This normally takes between 45–60 minutes but can vary. The Mannitol will be bright on the MRI scan, allowing us to watch the bowel as it moves to look for any abnormalities.

What is Oral Mannitol® and how will it make me feel?

This medicine is a sugar-based solution which relieves constipation; you may experience mild diarrhoea after the scan. If you are already experiencing diarrhoea, the medicine may make these symptoms a little worse for a short time. Some patients prefer to bring a change of clothing with them just in case, although this is rarely needed. We recommend that you wait in the department for 30 minutes after the scan, to allow time for your body to get rid of all the liquid you have drunk.

Appointment arrival time

We will ask you to arrive at a particular time within the department to drink the Mannitol prior to the scan. This is generally one hour prior to the scan time.

What happens during the MRI scan?

You will need to lie very still on the cushioned MRI couch during the examination, so it is important that you are as comfortable as possible before we start. If possible, we will scan you lying on your front (prone) but if this is too uncomfortable, we can scan you lying on your back. We will provide earplugs and headphones to help reduce the noise and protect your hearing.

During the scan, the radiographer will be able to see you from the control room and you can talk to each other through an intercom system. We will give you a call button to press if you need the radiographer's urgent attention. You may wish to listen to music during the scan; we can arrange this for you.

Newer scanners are much shorter and wider than before, but please contact us prior to your appointment if you suffer from claustrophobia.

Halfway through the scan we will need to give you an intramuscular (IM) injection of a medication to relax your bowel for a short time. This improves the image quality of the scan whilst we do fine detail images of the small bowel.

You may need an injection of contrast for the scan, to visualise the small bowel more clearly. We will ask you to give consent for this. A radiographer or radiology assistant will insert a small plastic tube (cannula) into a vein – usually in the back of your hand, or in the crease of your elbow. This cannula will be used to give you the injection during the scan.

Are there any risks?

The contrast media that is used contains gadolinium. It is generally very safe, and many people have this injection in MRI departments every day. However, with every injection of the contrast media there is a small risk of a reaction.

- We will check whether you have had any allergic reaction to MRI contrast in the past before your scan
- Some people may develop a rash

- Rarely the dye may result in a more serious allergic reaction which may need to be treated with medicines
- The radiographers are trained to recognise these reactions and to treat them. Should it be necessary, other staff are at close hand.

The actual scan takes 30–45 minutes, but you should allow **two hours** for the appointment. Please be aware that there may be delays when we have to accommodate urgent cases.

Contact details

If you have any questions after reading this leaflet, please call the MRI department for advice. The contact number is on the bottom of your appointment letter.

If you have any queries or feel unwell after the scan, please call for advice.

The Royal Marsden Macmillan Hotline: 020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Telephone: Chelsea 020 7811 8438 / 020 7808 2083

Sutton 020 8661 3759 / 3951

Email: patientcentre@rmh.nhs.uk

No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

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