Mersey and West Lancashire Teaching Hospitals
NHS Trust

# Having an MRI of the small bowel

## Patient information leaflet

**If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.**

اگر به این بروشور به زبان دیگر یا در قالب دسترس‌پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

**Author:** Radiology Quality & Accreditation Lead
**Department:** Radiology
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# Introduction

The aim of this information leaflet is to answer some of the questions you may have about having an MRI scan of your small bowel. It explains the benefits and risks of the procedure, as well as what you can expect when you come to hospital. If you have any further questions, please speak to your referrer or the Radiographer performing your scan.

## What is an MRI of the small bowel?

MRI stands for Magnetic Resonance Imaging. MRI scans use strong magnetic fields, gradients and radio waves to produce detailed images of your body. A Radiographer will perform this scan for you and a Radiologist (specialist imaging doctor) looks at these images and makes a report which goes to your referrer.

A small bowel MRI looks at the structure of your small bowel and the anatomy surrounding it by taking lots of images.



# How should I prepare for the scan?

## Before your MRI scan

We will advise you not to eat before your scan. Your appointment letter will tell you how long before the scan to stop.

Please contact us using the number on your appointment letter if you have any of the following; even if you have been told you can have an MRI scan:

- Pacemaker or implanted defibrillator.
- Surgical clips in your head.
- Hydrocephalous shunt (programmable).
- Hearing devices implanted into the head or ear (hearing aids are ok).
- Implanted electronic devices or any implant with an electronic programmer.
- Implants where a magnet is used to access a port for injections (such as a gastric band).
- If you have had surgery in the last six weeks before your MRI appointment.
- If you are pregnant or could be pregnant.

If you are taking any medicines, please continue to take these as usual unless you have been told otherwise by your doctor.

If you need an injection of contrast (dye), we may need to check your kidney function level before the scan. One of the MRI staff will insert a small needle called a cannula into a vein in your arm or the back of your hand to give the injection of contrast (dye).

## What do I need to wear?

We encourage you not to bring or wear any valuable items or jewellery. Please try to wear clothing that has no metal. However, depending on the type of scan you are having it may be required for you to change into a hospital gown. You will be asked to remove any loose metal objects, jewellery, watches, credit cards, money or electronic devices for your scan, as well as hairclips and pieces.

You will need to remove diabetic monitors and metal dentures just before your scan. Dental fillings will not affect the scan.

Please remove all piercings prior to attending for your scan.

## Who will I see on the day?

Your scan will be performed by specially trained Radiographers, with the assistance from Assistant Practitioners, student Radiographers and Radiology Department assistants.

# How should I prepare my small bowel meal scan?

We ask you to have nothing to eat or drink for 6 hours before your appointment time for this scan, so that your bowel is correctly prepared and we get the best images possible.

Before your scan you will be given a solution to drink which highlights your bowel (Mannitol or Carobel ). You will be asked to drink this over 45 minutes to give it time to travel around the bowel. This drink will distend (expand) your bowel and this distension enables us to produce much better images.

Please be aware that this solution will have laxative effect which will cause you to have diarrhoea whilst you are in the Radiology department or once you're at home.
If you are taking the contraceptive pill, it may not be effective once you have taken the bowel preparation. Please speak to your GP, pharmacist or family planning clinic for further advice on contraception.

After you have had your drink, a small needle will be inserted into a vein in your arm or hand called a cannula. This is so that we can give you some contrast (dye) and also a muscle relaxant to slow down the movement of your bowel. This gives us better images and allows us to fully visualise the bowel.

## What happens during an MRI scan?

- The MRI scanner looks like a 'tunnel' which is open at both ends.
- Depending on the body part we are looking at, you may go in head first or feet first.
- You will lie on a table that moves into the tunnel. The scanner table can be lowered and patients with mobility problems will be offered assistance.
- The Radiographers cannot be with you in the room, but will be able to see you at all times and you will be given a buzzer to squeeze if you have any problems during your scan.
- The scanner is quite loud so you will be given either earplugs or headphones (depending on the body part being scanned) to protect your ears.
- We will ask you to lie very still while your images are taken to avoid blurring the images and you may be asked to hold your breath for your scan. Straps and pillows may be used to keep you still and help maintain the correct position during the examination.
- When the scan is finished, the Radiographer will check the images are complete before assisting you off the scanner.

## How long will it take?

An MRI scan of the bowel typically takes between 30 and 45 minutes. Including the preparation that may be needed, you should plan to be in the MRI Department for up to 2 hours, as we may need to scan emergency patients before you. This means that your appointment could be delayed. We will let you know if this is the case.

## What if I have Diabetes?

Please contact the department if you are diabetic. This is to ensure that you get an early morning appointment time for you scan.

## Are there any risks / side effects?

The solution we give you to drink may cause you to have watery/loose stools so you may need to stay close to a toilet for a short time after the scan.

It is also important that you drink plenty of water following the scan to help flush the contrast (dye) out of your system.

MRI scans are safe and do not use any radiation. The powerful magnetic fields used mean that people with certain metallic objects in or on them may not be able to be scanned. We will complete a safety questionnaire with you before your scan to ensure you are safe to have the scan.

Some people can find MRI scans a little claustrophobic. You will be able to listen to music for your scan and many people find that breathing techniques work well. You can also ask for your eyes to be covered for the scan.

If you are nervous or worried about your scan, please contact the MRI Department or your referrer.

## Buscopan

There is a small risk of aggravating pre-existing glaucoma or certain heart conditions with a Buscopan injection (which is necessary to relax the bowel). You will therefore be asked about any relevant medical history before your examination.

Some people may have short-term blurred vision after administration of Buscopan. If this happens to you, please wait until your sight returns to normal before driving or using any tools or machines. Other common side-effects of Buscopan include a dry mouth and an increased heart rate. These should only last a short time, but if you experience either of these, or blurred vision, please stay in the department until the side-effects have worn off.

If you have ever had metal fragments in your eyes or worked with metal at high speeds it is essential, you inform the department before your scan.

Injection of contrast (dye)

If we are scanning certain areas of your body, sometimes the doctors will ask that you have an injection of some contrast (dye). The contrast (dye) that is used during an MRI scan contains Gadolinium.

There are risk factors associated with injections of contrast (dye), which can be increased by certain conditions. We will complete a safety questionnaire to check your suitability to have the contrast (dye).

Most patients do not notice any sensations when given the injection, although a few patients will report a cold feeling in the arm during the injection which is of no significance.

Table 1: Types of allergic reaction to Gadolinium Contrast

| **Category** | **Type** |
|---|---|
| Mild | Headache<br>Nausea<br>Dizziness<br>Sneezing<br>Runny nose |
| Moderate | Itching<br>Skin rash<br>Swelling of the face, lips, mouth<br>Swelling of hands, feet<br>Low blood pressure |
| Severe | Breathing difficulties<br>Respiratory arrest<br>Cardiac arrest<br>Nephrogenic Systemic Fibrosis (NSF) |

The risk of serious allergic reaction to contrast materials that contain gadolinium is extremely rare, and Radiology Departments are well equipped to deal with them.

# Risks continued….

If you have had an allergic reaction to the MRI contrast (dye) in the past, then you must tell us prior to, or on arrival for your appointment.

It has been identified that very small amounts of gadolinium contrast may remain in the body after your scan, when contrast has been given. However, there are currently no known adverse effects from these small amounts of retained gadolinium.

## Extravasation

Occasionally if you are having a contrast enhanced MRI, there is a small risk that the injection of contrast can leak out of the vein and under the skin. This is called an extravasation. We find this occurs in about 1 out of 200 injections. If this does happen, further advice will be given to you by the Radiographer and Radiologist at the time of the MRI scan.

## Pregnancy

If you are, or think you could be pregnant, please contact us prior to your appointment on the phone number in your appointment letter.

## What happens after the scan?

In most cases, as soon as the scan is finished you can go home, or back to your ward if you are staying in hospital.

If you have had a contrast (dye) injection, we may ask you to wait with the cannula in for up to 30 minutes before you leave the department. This is to ensure that you feel ok and there is no sign of any allergic reaction to the MRI contrast (dye) you had been given.

You can eat and drink as normal and resume your usual activities straight after the scan.
We suggest drinking extra fluids following your injection of contrast (dye), ideally equal to one cup every hour for the next six hours.

Finally

The pictures taken during the examination are studied carefully and a detailed report is produced. The results will be sent to the person who referred you for the test. They will discuss the results with you and any treatment you may need.

You may already have an appointment with the team who referred you. If not, please contact them to arrange one to discuss the results of this test.

If you have any further questions, please do not hesitate to call the Radiology Department via the number given on your appointment letter.

There may be students and observers present during your consultation as part of their ongoing training. Please let the staff know if you do not wish any students to be present during your attendance.

Whiston Hospital
Warrington Road,
Prescot, Merseyside,
L35 5DR
Telephone: 0151 426 1600

St Helens Hospital
Marshalls Cross Road,
St Helens, Merseyside,
WA9 3DA
Telephone: 01744 26633

Southport Hospital
Town Lane, Kew,
Southport, Merseyside,
PR8 6PNT
Telephone: 01704 547 471

Ormskirk Hospital
Wigan Road, Ormskirk,
L39 2AZ
Telephone: 01695 577 111