



British Society of GI and Abdominal Radiology

MR Enterography

Patient Information Leaflet

Introduction

This leaflet tells you about MR Enterography, a test to look at your small bowel. 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 MR enterography?

MR enterography is a way of looking inside your small bowel and abdomen. The small bowel is the portion of your intestine joining the stomach and duodenum to the large bowel.

An MRI (Magnetic Resonance Imaging) scanner is a short tunnel which is open at both ends. It uses a powerful magnetic field, radiowaves and a computer to produce images of the internal structure of the body. These images of the inside of the body can then be examined on a computer monitor. MRI does not use ionizing radiation (x-rays).

For MR enterography, fluid is drunk prior to the scan to distend the small bowel so that it can be well seen on the MRI images.

Are there alternatives to MR enterography?

There are alternative ways of looking at the small bowel:

Small bowel barium studies use barium contrast to fill or coat the small bowel and allow it to be seen on X-rays. The barium may either be taken orally (*small bowel meal or follow through*) or introduced directly into the small bowel via a tube passed through the nose and beyond the stomach (*Small bowel enema or Barium enteroclysis*)

Endoscopy is a way of examining the large bowel using a thin tube with a camera on the end (endoscope) which is passed through the oesophagus and stomach and moved around the small bowel. The procedure is invasive and usually requires sedation. Visualisation of the entire small bowel by endoscopy is a specialized technique and is not widely available. However, it does allow tissue to be removed for testing (biopsy) if needed.

Video capsule endoscopy uses a 'capsule camera' which is swallowed by the patient. This sends real time pictures as it passes through the small bowel to a recording device worn on the patient's waist. This technology is not widely available at the moment.

These examinations give a view of the small bowel only and, unlike MR enterography, do not give information about the other structures inside your abdomen.

CT of the Small Bowel uses a CT scanner to obtain cross-sectional images of the small bowel after it has been distended with a special solution taken orally (*CT Enterography*) or introduced directly into the small bowel via a tube passed through the nose and beyond the stomach (*CT enteroclysis*). Like MR Enterography, this technique also provides information about the other structures inside your abdomen. However, CT of the small bowel uses ionizing radiation (X-rays).

What do I have to do before my MR enterography?

Bowel preparation.

It is very important for the stomach and small bowel to be empty before the test is performed so that the small bowel can be clearly seen. You will be given a leaflet explaining this bowel preparation in more detail. The leaflet gives dietary instructions about what you should and should not eat or drink before your test. Sometimes a mild laxative is prescribed to clear the small bowel prior to the test. It is very important that you follow the instructions you are given.

Taking tablets and medicines

You should continue to take all your normal medication unless you are diabetic taking insulin. If you are diabetic using insulin, please contact the Radiology department for advice.

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 ladies unless it is essential.

MRI Safety Questionnaire

Please take time to read through and complete the attached MRI Safety questionnaire. 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 need to arrive at least 45 minutes before your appointment for preparation.

You will be shown to a private cubicle and asked to change into a clean gown. If you need help with changing or translation you may bring someone with you to help you. If you need an interpreter please tell us when you receive your appointment so that we can arrange this. Please do not wear items of jewellery as they may need to be removed prior to the scan.

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

- Diabetes
- Kidney disease
- Prostate problems
- Heart disease
- Glaucoma
- Any allergies

What happens during MR enterography?

- A member of the team will explain the test and answer any questions. Please let them know if you had any problems with your bowel preparation.
- You will be asked to drink about 1.5 litres of liquid steadily over approximately 40 minutes prior to getting on the MRI scanner.
- You will have a small tube, called a cannula, inserted into one of the veins in your arm
- You will be asked to lie down on the moveable scanner table which is moved into the scanner.
- A receiving device will be placed around the part of your body being scanned.
- MRI scans will be performed to see whether the liquid has passed all the way through the small bowel.
- Once the fluid has filled the entire small bowel a muscle relaxant will normally be injected through the cannula into the vein. This will stop the bowel from moving during the scan and give better images of your bowel. The muscle relaxant may make your eyesight blurred and give you a dry mouth, but it soon wears off. However, you should not drive for 30 minutes after the injection.
- The MRI scan will then be performed and takes approximately 20-30 minutes to complete.

- You will be asked to remain still and hold your breath for short periods whilst the scans are taken.
- 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.
- You will be given an injection of intravenous contrast medium via the cannula during the scan.
- 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?

The liquid you drink may cause some short lived diarrhoea, so you may wish to spend a short time in the department near to a toilet before you go home. You may eat and drink as normal as soon as the examination is finished. Normal activities may normally be resumed immediately after the scan.

Are there any risks?

MR enterography is generally regarded as a very safe test. Problems can occur, but they are rare. Problems which might occur are similar to those which can happen with other methods of examining the large bowel.

These include:

- Nausea or Abdominal discomfort
- The liquid you drink may cause some short-lived diarrhoea
- Reaction to the injected contrast
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.

How do I get my results?

A specialist Radiologist will review the images from your MR enterography 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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