INSIDE RADIOLOGY

MRI scan of the Rectum

Consumer Information

Contributors:

Dr Nick Ferris

MBBS, FRANZCR

Dr Helen Moore, Ms Ann Revell, Dr Christine Walker, A/Prof Stacy Goergen

What is an MRI scan of the Rectum?

Magnetic resonance imaging (MRI) uses a very strong magnet, and radio waves, to make detailed pictures of organs inside your body. MRI is considered to give the best (clearest) images or pictures of the tissues around the rectum, for identifying the extent of any disease. It makes very accurate pictures of diseases involving the rectum, which is the lower part of the large bowel, near the anus (back passage). An MRI scan of the Rectum is generally performed if other tests have detected a problem such as the presence of a cancer or other neoplasm (a tumour or tissue containing a growth).

How do I prepare for an MRI scan of the Rectum?

You do not need to do anything different on the day of your rectal MRI study.

Before the examination begins, you will be asked a series of questions about whether you have any metal implants, such as artificial joints, or electronic devices, such as pacemakers, inside you - some of these may cause damage if they are put into the strong magnetic field of the MRI.

If you do have any metal or electronic implants, please bring any documents about these with you to your appointment.

If you have a heart pacemaker, please tell the radiology practice at which the MRI study is booked as soon as possible before the appointment.

The magnetic field is very strong, and can damage any electronically activated device (e.g. heart pacemaker) or magnetic card strips (including credit cards) brought into the magnet room.

Objects that are attracted by magnets (e.g. iron rods) are very dangerous in the magnet room, because they are violently attracted by the magnet. All persons entering the exam room will be carefully screened for such objects. However, most metal objects that are implanted into people (e.g. artificial hips) are made of non-magnetic or very weakly magnetic steel or other materials, and do not pose a risk.

Some metal bands and loops of wire (e.g. some necklaces) can become quite hot if put into the scanner, so you will be asked to remove any such metal before going into the scan room.

What happens during an MRI scan of the Rectum?

Before your MRI examination can start, you will be asked a number of questions about metallic and/or electronic implants that you might have inside you. In some cases, such implants can be unsafe inside the MRI scanner, and another kind of test may then be needed.

Once the safety questions are finished, you will be asked to lie down on a narrow bed in the scan room.

You will be given headphones to wear; these protect your ears from loud rattling noises that are made by the scanner when it is making the pictures.

At some scanners you may be given an injection into a vein in your arm to slow down the normal movements of your bowel (these contractions can blur the MRI pictures). The injection may be called Buscopan (hyoscine) or glucagon. Some of these medications can worsen an eye disease called glaucoma, cause difficulty urinating (in those with prostate disease), and worsen some heart rhythm disturbances; you will be asked about all of these before any injection is given.

The MRI scanner is a large metal ring (shaped like a doughnut) that surrounds the platform for the bed. For an examination of the rectum, your hips need to be placed in the centre of the ring, so that your head will be near its opening. The bed will be moved into the scanner by the medical imaging technologist who will perform the MRI scan, until your body is correctly positioned. The technologist will then leave the examination room and go to the control room, from where he or she can talk to, and hear from, you at any time.

The technologist will use the scanner to make several sets, called “sequences”, of MRI pictures. Each set will last from 1 to several minutes, and it is very important not to move during any of the sequences. Whenever there is a rattling noise, the scanner is making more pictures.

The whole examination will take between 20 and 45 minutes.

Are there any after effects of an MRI scan of the Rectum?

The MRI examination itself does not cause any after-effects.

If you are given an injection to slow down the bowel, you may notice some dryness in the mouth, and possibly some blurring of vision, within the first hour after the injection. These effects usually go away before the end of the MRI examination, without treatment.

How long does an MRI scan of the Rectum take?

The length of the scan depends on the type of MRI being used, and on how many sets of pictures are needed to fully show the extent of any abnormality present. It may be between 20 and 45 minutes. You will be able to leave as soon as the scan is completed.

What are the risks of an MRI scan of the Rectum?

A small proportion of people (2–5%) find MRI examinations difficult because of the partly enclosed nature of the scanner; the same people are often uncomfortable in lifts and other enclosed spaces.

This is less of a problem for rectal MRI exams than for some other MRI exams, because your head is near the opening of the magnet.

Many MRI centres offer mild sedation (relaxing tablets or injections) to patients who know that they will find the close surroundings of the magnet uncomfortable. These treatments reduce the anxiety about being in a confined space; they are not intended to put people to sleep. If you are given a sedative injection, a plastic peg will be put on one of your fingers so that the technologists can monitor your pulse and breathing.

Although these injections appear to wear off quickly (in less than an hour), they slow reaction times for some hours. Driving, and travelling alone, may be unsafe for the rest of the day after such injections. 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. If you are given such an injection, you should not return to work the same day.

There is no known adverse effect of the magnetic field and radio waves used in MRI on living tissues.

What are the benefits of an MRI scan of the Rectum?

MRI makes pictures of the body's internal organs, and shows how much of an organ, and/or nearby tissues, have been affected by disease. This information can be very important to your doctor in deciding how best to treat your condition. For example, if radiation treatment would make a successful operation more likely, or if the lesion can be safely removed by an operation without any other treatment.

Who does the MRI scan of the Rectum?

A medical imaging technologist specially trained in the use of MRI will conduct most of the MRI safety screening procedures, help you to lie on the magnet bed, and operate the scanner controls.

The exact types of pictures that the MRI scan will produce will have been chosen in advance by a radiologist, a specialist qualified doctor who has spent many years of postgraduate training learning how to interpret medical images (X-rays, computed tomography (CT) scans, MRI examinations). The radiologist may check that all the pictures that will be needed to assess your case have been made before you leave the practice. He or she will then review the pictures and write a report to your referring doctor, outlining the important findings, and sometimes making suggestions for how to further assess your disease.

Where is an MRI scan of the Rectum done?

Almost all currently installed MRI systems can do an MRI examination of the rectum. In general, newer systems will make better pictures. Not all practices with MRI scanners, offer this test.

When can I expect the results of my MRI scan of the Rectum?

The time that it takes your doctor to receive a written report on the test or procedure you have had will vary, depending on:

- the urgency with which the result is needed
- the complexity of the examination
- whether more information is needed from your doctor before the examination can be interpreted by the radiologist
- whether you have had previous x-rays or other medical imaging that needs to be compared with this new test or procedure (this is commonly the case if you have a disease or condition that is being followed to assess your progress)
- how the report is conveyed from the practice or hospital to your doctor (in other words, email, fax or mail)

Please feel free to ask the private practice, clinic, or hospital where you are having your test or procedure when your doctor is likely to have the written report.

It is important that you discuss the results with the doctor who referred you, either in person or on the telephone, so that they can explain what the results mean for you.

Useful websites about MRI scans of the Rectum:

- American College of Radiologists: http://www.radiologyinfo.org/en/pdf/pdf-menu1.cfm?pg=bodymr
- Cancer Net: http://www.cancer.net/patient/All+About+Cancer/Cancer.Net+Features/Treatments%2C+Tests%2C+and+Procedures/Magnetic+Resonance+Imaging+%28MRI%29%26mdash%3B What+to+Expect
- Royal Marsden Hospital: http://www.royalmarsden.nhs.uk/RMH/cancer/detectiondiagnosis/mriscan.htm

Please note:

This information is of a general nature only and is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. It is recommended that any specific questions regarding your procedure be discussed with your family doctor or medical specialist

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