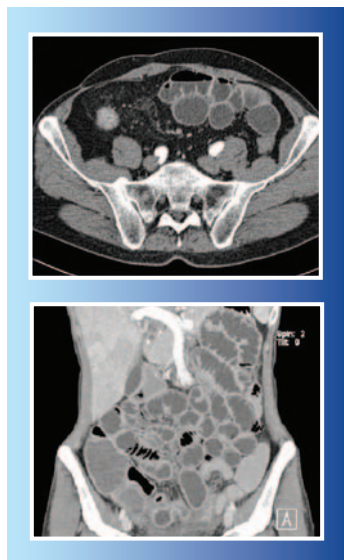


CT abdomen

with small bowel preparation

i Information for patients
Radiology



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What is a CT scan of the small bowel?

CT is a short way of saying Computed Tomography.

An abdominal CT scan with small bowel preparation is a specialised test to look specifically at your small bowel, but can look at all your abdominal organs at the same time. Images are taken in 'slices' through your abdomen. These images can then be put together to create a 3D picture of your abdomen and small bowel.

What does a CT scanner look like?



A CT scanner looks like a giant polo mint. It is circular with a large hole in the middle and is open at both ends.

During the scan you will be asked to lie on the scan table. The table will move in and out of the scanner as it takes the images.

Why do I need a CT scan?

You will have recently seen your doctor about a medical problem who should have discussed with you their reason for wanting a CT scan of your abdomen.

Some reasons include:

- Painful abdomen or blood loss which your doctor feels may be associated with your small bowel.
- Suspected or known small bowel disease such as Crohn's disease.

A CT scan produces very detailed images of your abdomen and may help provide extra information about your condition. If you are unsure as to why the scan is necessary, it is best to talk to your doctor who will have all your details.

Will I need any special preparation for the scan?

You will need special preparation for this scan so that your small bowel can be visualised well on the scan.

For the best results your stomach will need to be empty for the scan.

Do not eat for 6 hours before your scan

You may drink clear fluids during this time.

- You will be asked to attend 1 hour before your appointment time.
- You will be given a medication called Metoclopramide, to drink. This will aid the flow of the preparation drink into your small bowel and help you to tolerate the drink.
- You will be asked to drink a total of 1.5 litres of the preparation drink before the scan.

- You will be given a 750ml jug of the fluid to drink over 20 minutes then a second 750ml jug over the following 20 minutes.

The preparation drink is a thick consistency and you may find it difficult to drink, however **it is extremely important that you drink the full amount in the allocated time to produce a good scan**. If you are having difficulty drinking the fluid you may be given extra preparation time to ensure the full amount is taken.

What will happen when I arrive?

On arrival in the x-ray department you will need to book in at the main reception. You will then be collected by a clinical assistant or radiographer who will take you to prepare for your scan and give you the preparation drink detailed above.

Will I need an injection?

You will need two injections for this scan.

- An injection of a medication called Buscopan, a muscle relaxant which will slow down the movements of your small bowel and helps to provide good images of your bowel.

Please inform the radiographer or radiologist if you suffer from angina or glaucoma.

You may not be able to have the injection, however an alternative injection called **Glucagon** may be used.

- An injection of x-ray contrast (dye), a liquid that highlights your blood vessels and organs on the scans and helps to give more information.

Who performs my scan?

The person who carries out the scan is called a **radiographer**. They will explain your procedure thoroughly when you come for your appointment.

A **radiologist** (a doctor specially trained in looking at x-rays) will interpret the scan and send the results to your doctor.

What will happen during the scan?

- When you are ready for your scan you may be asked to change into a hospital gown, you will then be asked to lie on the scanner table.
- You will need an injection of x-ray dye. The radiographer will go through the questionnaire you have been asked to complete, to ensure that it is safe to give you the injection.
- A small needle (cannula) will be placed into your arm to allow the x-ray dye to be administered during the scan. The x-ray dye will not be injected straight away, the radiographer will need to do some planning scans first but will warn you when the dye is being injected.
- Immediately before the scan starts a doctor will give you the injection of Buscopan through the small needle that has already been placed in your arm.
- You will be asked to drink a final cup of plain water to ensure your stomach is full of fluid at the time of the scan. You will be scanned several times, during which you will move in and out of the scanner. For each scan you will be asked to hold your breath for up to 15 seconds. It is important that you hold your breath and keep still as breathing and moving causes blurring and can ruin the scan pictures.

What happens after the scan?

Once the scan is complete you will be asked to return to the cubicle to change. Because you will have been given the injection of x-ray dye and buscopan during the scan you will be asked to wait in the department for an extra 15 minutes. The cannula will be left in your arm. This is so that we can monitor you to make sure the effects of these injections have worn off and that you feel alright before you leave. Once your cannula has been removed by a member of the CT staff, pressure will need to be applied to the site to prevent bruising, you will then be able to leave the department.

Be careful not to knock the injection area once you have left the department, particularly if you take **aspirin** or **warfarin** as this can cause the area to bleed again. If bleeding occurs, apply pressure to the area using a clean cloth or gauze to stop the bleeding and reduce any bruising.

The injection of x-ray dye causes no known effects on the ability to drive or operate machinery. However due to the risk of reaction (see risk section, page 8), patients are advised not to drive or operate machinery for one hour after the injection.

How long does it take?

The scan itself will take approximately 20 minutes. Please be aware that you will be asked to arrive up to an hour earlier to drink the fluid before the scan. You will be asked to wait in the department for an extra 15 minutes after the scan. You should anticipate being in the department for up to 2 hours.

Due to the nature of our workload we often have to perform emergency scans which must be prioritised. Whilst we try to keep to appointment times this may occasionally cause slight delays with routine appointments. We thank you for your patience.

Are there any risks?

There are a few risks involved with a CT scan. They include:

Radiation - A CT scan uses radiation in the form of x-rays. The amount of radiation used is more than for an ordinary x-ray of the same area but is equal to the amount of natural radiation from the atmosphere we all receive over a few years. This adds very slightly to the risk, for example of developing a cancer, but the risk is very small. The amount of radiation is kept to a minimum to reduce this risk and a CT scan is considered a safe procedure.

The effective dose for a small bowel CT scan is 10 mSv which is equivalent to 4.5 years of background radiation for an adult and this may increase your lifetime risk of cancer by 0.02%.

Your doctor will have chosen this test for good reason and feels that the benefit of having a small bowel CT scan is greater than the risk from the radiation.

For more information regarding the risks of radiation visit the Health Protection Agency at www.hpa.org.uk

Radiation, pregnancy and women of childbearing age - If you are of childbearing age and are still having regular periods we need to know the dates of your last menstrual period. **As this is a CT scan to include your abdomen and pelvis we need to ensure that the first day of your last period is within 10 days of the scan.** This is to ensure that we do not mistakenly irradiate a foetus/unborn baby. You will be asked to book the CT appointment to coincide with these dates, however if you attend for your scan and are outside of these dates you will be asked to take a pregnancy test to ensure you are not pregnant. This is precautionary, but for safety and legal reasons must be done.

X-rays can be harmful to your unborn baby. It is important to tell the CT staff if you are, or think you may be, pregnant.

Reaction to the injections - The x-ray dye used for this test contains iodine and it does have some natural side effects, which are:

- Hot flush
- Metallic taste in the mouth
- Sensation of passing water

These usually pass within a few minutes.

We take every precaution to ensure that you will have no adverse effect from the injection, however very occasionally (in less than 0.03% of cases) patients can have an allergic reaction to the dye. This can manifest itself as an itchy rash, shortness of breath and in extremely rare occasions swelling of the throat and other body parts.

A reaction to the x-ray dye usually occurs within minutes of the injection, however on rare occasions a reaction may not occur until you have left the scanning department. If you experience a reaction after you have left the department do not hesitate to contact your GP or the local A&E department.

To prevent the occurrence of an allergic reaction, please inform staff of any allergies you may have.

Asthma - On rare occasions the x-ray dye can bring on an asthma attack. If you are asthmatic please remember to bring your inhalers with you.

Kidney Function - The x-ray dye injection can cause your kidneys to work more slowly; this is only a problem if you already suffer with kidney problems. If you have not had a recent blood test you may need to have one before the scan to check your kidneys are working properly. You should only require a blood test if you are a diabetic taking Metformin (Glucophage), have existing kidney problems or are aged 65 or over. Your doctor will organise this for you. Depending on these blood results you may need to be hydrated before and after the scan, this can involve drinking 1 litre of water before and after the scan or you may need to

come into hospital and be put on a drip for a few hours before and after the scan. Once we receive your blood test results you will be informed if this is necessary for you.

The short questionnaire you have been asked to complete provides information to help reduce the risk of an allergic reaction and medical problems. Please remember to complete this and hand it in when you attend for your scan.

Shall I continue taking my medication?

Yes, continue taking any medication unless you are advised otherwise. If you are diabetic and taking Metformin you may need to stop taking this.

If you are diabetic and taking Metformin please contact the CT scanning department as soon as possible. Our telephone number is provided on your appointment letter.

When will I get my results?

We cannot give you your results straight away. The radiologist will need time to review your scan pictures in detail, your results will then be sent to the doctor who has referred you for the scan. You may have an outpatient appointment booked with your doctor at which you can discuss the results of the scan. If you do not have an appointment booked you will be sent one once your doctor has received the results.

Are there any alternative tests?

Your doctor has referred you for a CT scan because they feel that this is the best test for you. However, if you feel unhappy about having a CT scan there may be alternative tests that you can have. You will need to discuss this with the doctor who has sent for you to have the scan.

What if I still have some questions?

After reading this leaflet, if you want to know more or have any concerns you can contact the doctor who referred you for the scan, the CT scanning department or you can ask the radiographer when you arrive for the scan.

If you cannot make your appointment or have any queries please contact the CT scanning department. Our telephone number is provided on your appointment letter.

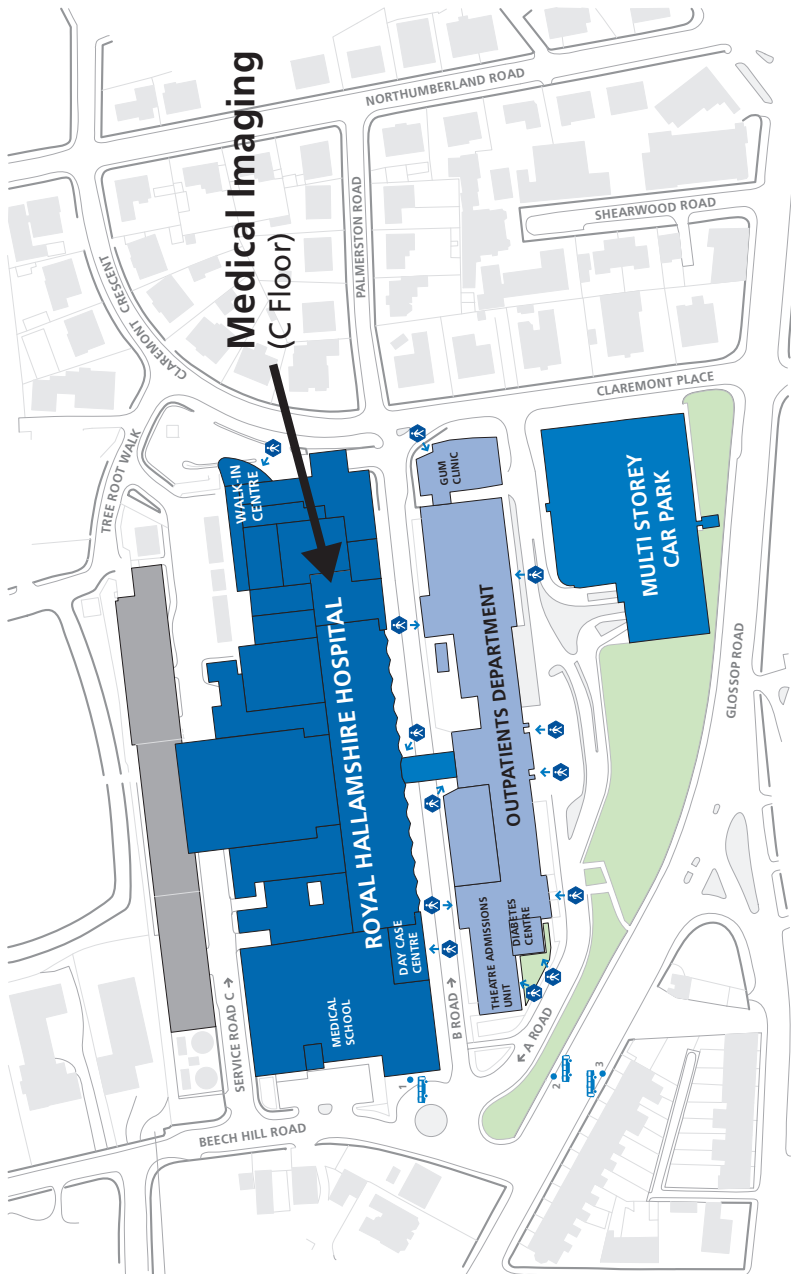
Alternatively you can email:

Jenny.Braithwaite@sth.nhs.uk

CT & MRI Manager

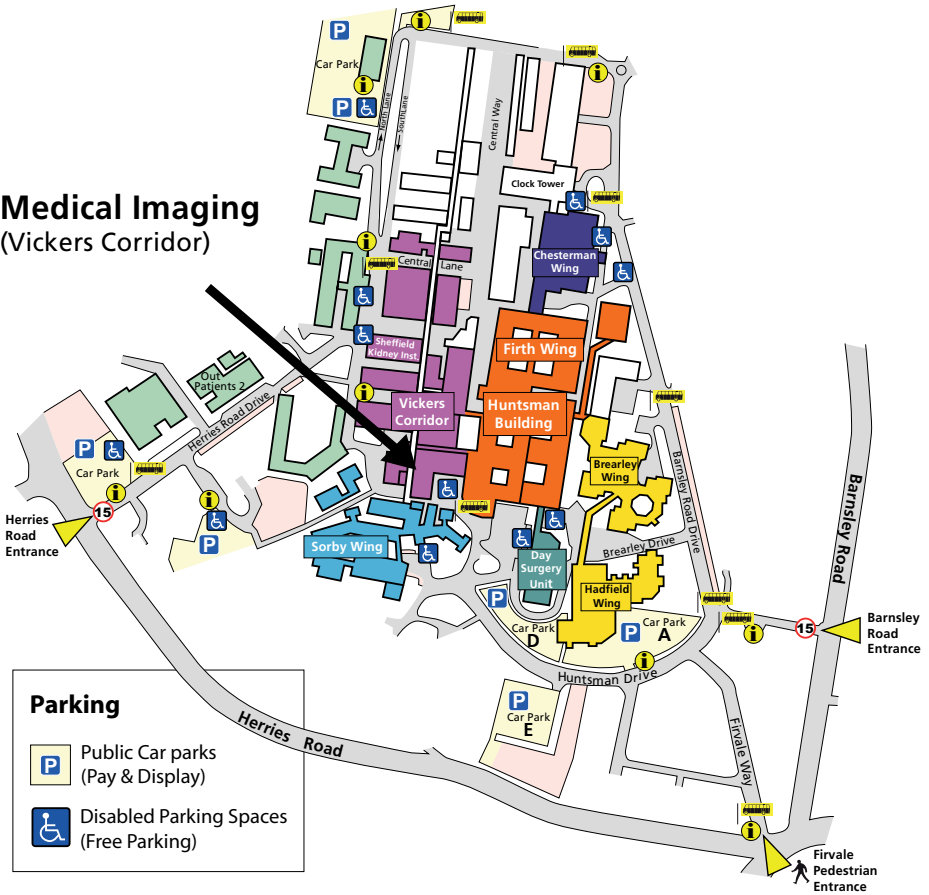
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



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Medical Imaging (Vickers Corridor)



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