

Information for patients and carers

CT Colonography

A decorative graphic at the bottom of the page consisting of three overlapping, wavy bands of blue. The top band is a light blue, the middle is a medium blue, and the bottom is a dark blue.

What is CT colonography?

CT colonography is a type of CT (Computed Tomography) scan. A CT scan takes a series of images of your body using x-rays. The images show cross-sections or slices of your body in great detail.

Your clinician has specifically referred you for a CT colonography examination as a standard x-ray or CT scan will not provide the level of detail required.

A CT colonography examination visualises your large bowel (colon) and rectum (back passage) and uses carbon dioxide to demonstrate these areas clearly on the CT images.

As part of the CT colonography examination you may have to have an injection of a contrast agent (x-ray dye) which helps to demonstrate your blood vessels during the scan. You may also be required to have a small injection of a muscle relaxant called Buscopan which aims to reduce the amount of spasm within your bowel during the examination, making it more comfortable for you.

Your examination will be performed by two radiographers who will guide you through the examination and will be able to answer any questions you may have.

During your examination you may also meet a radiologist who is a specialist doctor trained in interpreting CT scans; they may assist the radiographers during particular stages of the examination.

Please inform us before you attend if:

- You are or think you may be pregnant
- You are chest/feeding
- You weigh over 30 stone/190kg
- You are diabetic

- You require the use of a hoist
- You have had a previous allergic reaction to x-ray dye
- You are allergic to iodine
- You are taking iron tablets
- You have been advised or told to restrict your fluid intake
- You require an interpreter – **please inform us as soon as you receive your appointment letter and we will arrange an official interpreter for you**

Are there any special preparations required before the examination?

Before your CT colonography examination we require you to drink a liquid contrast (x-ray dye) called Gastrografin, which contains iodine, as well as follow a special diet. These will help to cleanse your bowel ready for the examination.

We have included detailed instructions on how to take the Gastrografin and the diet to follow with this information leaflet. You **must** follow these instructions carefully; failure to do so may mean we are unable to perform your CT colonography examination. Please do not take any other bowel cleansing agents other than the Gastrografin unless it is specifically prescribed by your consultant. We require you to start this preparation **two days before** your CT colonography appointment so please familiarise yourself with the instructions we have sent you as soon as possible. The Gastrografin has a laxative effect, and we advise that on the day before the examination it is best to stay within easy reach of a bathroom.

Please continue to take any regular medications unless we have told you otherwise or if your clinician informed you not to.

Can I bring a relative or friend with me?

A friend or relative can accompany you to the hospital but they will usually not be allowed into the room when you have your examination. Please note that as we have limited seating and do not have childcare facilities, you are advised not to bring small children with you to your appointment.

What happens when I arrive at the CT department?

When you arrive at the CT department, please book in at the reception desk and take a seat in the waiting area. You will then be shown to the department's changing area and asked to put on a hospital gown before going into the examination room.

What happens during the examination?

Once in the examination room a radiographer will check some details with you and ask you questions about your medical history. The Gastrografin and diet instructions you were asked to follow will also be discussed. This will ensure that it is appropriate for us to perform your examination at this time.

The radiographer will also complete a checklist to ensure it is safe for us to give you the Buscopan and the contrast agent during your procedure. If you do not wish to have the examination or are undecided, please ask the radiographer any questions you may have.

You will be asked to lie on your back on the scan table and the radiographer or the radiologist will insert a small needle into one of your veins, either in your arm or the back of your hand. This allows us to give you the contrast agent (if required) and the Buscopan.

The radiographer will then ask you to turn onto your side and a small soft tube will be inserted into your back passage (rectum). On the end of the tube is a small balloon which will be inflated to ensure the tube stays in position during the examination.

You will be asked to stay on your side as the carbon dioxide is slowly introduced through the tube into your rectum and through your bowel. The carbon dioxide distends your bowel to clearly outline it on the CT scan. It is therefore important that you try to retain as much of the carbon dioxide as possible even though it may make you feel bloated and full.

As the carbon dioxide progresses around your bowel the radiographer will ask you to turn onto your front and then onto your opposite side; this helps to move the carbon dioxide around your bowel.

The CT colonography examination involves two scans of your bowel during your appointment.

Whilst on your side the first scan will be performed. At this point the radiographers will leave the examination room, but they will be able to see you through a glass window and you can talk to them through an intercom.

During the scan you will need to lie very still and you may be asked to hold your breath for a moment. The table moves slowly and slides forwards and backwards through the centre of the CT scanner. The CT scanner is like a large ring doughnut similar to the photograph.

Unlike some other scanning machines, the CT scanner is **not** enclosed.

When the first scan is complete the radiographers will come back into the examination room.

The radiographer may introduce a little more carbon dioxide if required and then will deflate the small balloon on the end of the tube in your rectum and ask you to turn so you are lying on your back.

At this point, if you are having the contrast agent, a radiographer will connect a thin tube to the end of the needle they placed in your vein. This allows the contrast agent to be given through this tube at a specific point during the second scan. The radiographer will then begin the second scan and again they will leave the examination room. They will inform you when the contrast agent is being given to you.

Once this second scan is complete the radiographers will re-enter the examination room and remove the small needle from your vein and the tube from your rectum.



What happens after the examination?

When you feel ready you will be shown back to the changing area and asked to get dressed into your own clothes.

If we have given you Buscopan, we routinely ask patients to wait for at least 20 minutes following their scan so that we can monitor you for a delayed allergic reaction. We will make a hot drink for you to drink before leaving the department.

If you were given the contrast agent during your scan we advise you to drink plenty of fluids over the following 24 hours to help flush the contrast agent out of your body. You will not notice the contrast agent leaving your body and it will be excreted in your urine.

After the examination you will be able to return to your normal diet and medication.

You may notice that the laxative effect of the Gastrografin may continue for the next day or two. This is normal.

Are there any side effects?

If it is necessary for you to have the injection of contrast agent during your scan it may give you a metallic taste in your mouth. It may also give you a hot 'flush' sensation and some patients feel as though they want to pass water. Please be aware these are all very common side effects and will only last a short period of time.

If you were given Buscopan it may cause you to have temporary blurred vision, a dry mouth and slight dizziness. We advise you not to drive until your vision has returned to normal (this can be between 20 minutes to an hour). In extremely rare instances, a patient may experience very itchy, swollen and red eyes. If this happens then medical intervention is required immediately.

The radiographer will offer further guidance on all of these potential side effects before your examination.

As your bowel is being inflated with carbon dioxide a common side effect is a feeling of fullness as if you want to go to the toilet and feeling bloated. This is because your bowel is slowly filling with the gas. The Buscopan is used to minimise this sensation but unfortunately you may still feel a little uncomfortable as the gas enters your bowel. The radiographer will try to minimise this feeling further by asking you to turn slowly on the scan table to ensure the gas moves around your bowel.

Are there any risks?

A very small number of patients have an allergic reaction to the contrast agent. This can be minor, severe or even life threatening, but the chances of this occurring are very rare.

Before your examination begins the radiographer will ask you a series of questions about your medical history, including any allergies you may have. This will help us assess if you are at risk of an allergic reaction to either the contrast agent or the Buscopan.

If you are having the contrast agent, there is a small risk that the injection of contrast can leak out under the skin instead of in the vein. If this does happen then further advice will be given by the radiographer at the time of your examination.

There is a small risk that inflating the bowel with carbon dioxide can cause a perforation (a small tear in the bowel wall). The risk of perforation is about 1 in 3000 which is lower than the risk during a colonoscopy.

There are some small risks involved with the radiation received during a CT scan but only the minimum amount of radiation is used to produce

the images required. We use the smallest dose possible, in line with national regulations. This allows us to make an accurate diagnosis to help plan your care. Your consultant has determined that the benefits of having the CT colonoscopy examination far outweigh the radiation dose you will receive.

When will I receive the examination results?

Following your CT colonography examination the radiologist will review the scans and write a formal report of the results. This will be sent to the consultant who referred you for this examination. During your examination the radiographer will advise you on how you will receive these results. You will not receive the results at the time of your examination.

Contact details

Should you require further advice or information please contact CT appointments on **01772 522553**.
Lines are open 8.30am to 4.30pm Monday to Friday (excluding Bank Holidays).

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

www.gov.uk/government/publications/doses-from-computed-tomography-ct-examinations-in-the-uk

www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice

www.medicines.org.uk/emc/product/890/smpc#gref

www.patient.info/cancer/colon-rectal-bowel-cancer-colorectal/ct-colonography

www.gov.uk/government/publications/bowel-cancer-screening-having-a-ct-colonography-ctc-scan/nhs-bowel-cancer-screening-programme-having-a-ct-colonography-ctc-scan#fn:2

www.rcr.ac.uk/sites/default/files/intravasc_contrast_web.pdf

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

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