



**Lancashire Teaching
Hospitals**

NHS Foundation Trust

Information for
patients and
carers

COMPUTED TOMOGRAPHY (CT) COLONOGRAPHY

Excellent
care with
compassion

Diagnostics and Clinical Support - Radiology

  @LancsHospitals

This leaflet explains more about having a CT scan including the benefits and risks. It also provides information on what to expect when you come to hospital.

If you have any further questions please speak to the doctor, radiographer or nurse.

What is CT Colonography?

CT colonography is a type of CT scan. CT stands for Computed Tomography. A CT scan takes a series of images of your body using x-rays. The images show cross-sections or slices of your body. They are put together by a computer and can be viewed on a screen. The scan shows a very detailed image of the inside of your body.

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 an x-ray dye (contrast agent) which highlights blood vessels, organs and other structures of the body and helps to improve the quality of the scans.

You may also be required to have a small injection of a muscle relaxant called Hyoscine Butylbromide (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.

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 following 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. 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.

Why should I have a CT scan?

A CT scan can help your doctor to find the cause of your problem and the best treatment options for you.

Are there any alternatives?

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.

Please inform us before you attend:

- If you are or think you may be pregnant
- If you are breastfeeding
- If you weigh over 30 stone/190kg

- If you are diabetic
- If you have problems standing or need a hoist to transfer
- If you have had a previous allergic reaction to x-ray dye (contrast agent)
- If you are allergic to iodine
- If you are taking iron tablets
- If you have been advised or told to restrict your fluid intake
- If you require an interpreter – please inform us as soon as you receive your appointment letter and we will arrange an official interpreter for you

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 child care 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.

How long does it take?

You should plan to be in the CT department for up to 2 hours. The scan itself takes between 30 and 40 minutes.

We will try to keep to your appointment time but occasionally we will be required to scan patients urgently at short notice. This means your scan could be delayed, but we will let you know if this is the case.

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.

If your clinician has asked us to give you an injection of x-ray dye during your examination, the radiographer will also complete a checklist to ensure it is safe for us to do so. The radiographer will ask you to sign a form which indicates you consent (agree) to the examination being performed. 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 x-ray dye (if required) and/or the Hyoscine Butylbromide (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 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. They 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 x-ray dye, a radiographer will connect a thin tube to the end of the needle they placed in your vein. This allows the x-ray dye to be given through this tube at a specific point during the second scan. The radiographer will then leave the examination room and begin the second scan. They will inform you when the x-ray dye 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 Hyoscine Butylbromide (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. If you have had the x-ray dye, this waiting time may be longer, but the radiographer will inform you of this after your scan. Before you leave the department, you will be offered a drink.

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

Are there any side effects?

If it is necessary for you to have the injection of x-ray dye 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 Hyoscine Butylbromide (Buscopan) it may cause you to have temporary blurred vision and a dry mouth. 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 or feeling bloated. This is because your bowel is slowly filling with the gas. The Hyoscine Butylbromide (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 bed to ensure the gas moves around your bowel.

Are there any risks?

A very small number of patients have an allergic reaction to the x-ray dye. 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 x-ray dye or the Hyoscine Butylbromide (Buscopan).

If you are having the x-ray dye, 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 and is lower than the risk of this occurring during 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 clinician 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 clinician 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; the radiographer will confirm how you will receive the results.

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.gov.uk/government/publications/ionising-radiation-from-medical-imaging-examinations-safety-advice/exposure-to-ionising-radiation-from-medical-imaging-safety-advice

www.nhs.uk/conditions/CT-Scan/

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

All our patient information leaflets are available on our website for patients to access and download:

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

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Lancashire Teaching Hospitals is a smoke-free site

On 31 May 2017 Lancashire Teaching Hospitals became a smoke-free organisation. From that date smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Gujarati:

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો ફૂપા કરીને પૂછો. આ માહિતી મોટા છપાણા માં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi."

Polish:

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲੋਂ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲੋਂ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:

پوچھئے۔ یہ معلومات دوسری ضرورت ہے تو براے مہربانی سمجھنے کے لیے مدد کی اگر آپ کو یہ معلومات بھی دستیاب ہو سکتی ہے زبانوں اور بڑی چھپائی میں

Arabic:

بأحرف مطبوعة المعلومات هذه توفير يمكن. تطلب أن يُرجى المعلومات هذه فهم في مساعدة توريد كنت إذا أخرى وبلغات كبيرة

Department: CT Department/ Radiology

Division: Diagnostics and Clinical Support

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