

The ROYAL MARSDEN

NHS Foundation Trust

CT Colonography (CTC) with Gastrografin preparation

CT Scanning Department

Patient Information



NHS

Contents

What is a CT Colonography?	1
What does the examination involve?	1
After the examination	2
Are there any risks?	2
Alternatives to CT Colonography	3
What preparation will I need?	3
What will the bowel preparation do?	4
When do I start to prepare for my CT Colonography?	6
Seven days before your scan	6
Four days before your scan	6
One day before your procedure	7
On the day of your procedure	8
Do I continue taking my regular medication?	8
What happens afterwards?	8
Contact details	9
Sources of information and support	10

What is a CT Colonography?

Your doctor has asked us to carry out an examination of your large bowel (colon) using a CT scanner. This is called a CT Colonography (CTC) which is a specialised type of test.

CT stands for computed tomography and is a specialised type of scan that uses x-rays to produce an image. To obtain the images, you will lie on a bed which moves you through the centre of the scanner. Most of the time you can see out of one side of the scanner; this can be helpful for people who may feel claustrophobic. To prevent blurred images, we will ask you to hold your breath and keep still for a short time during the scan.

As CT scans involve a small radiation dose, women who are pregnant, or think they may be pregnant, should contact the department before starting the preparation.

What does the examination involve?

In the privacy of the CT scanning room, the radiographer will insert a small tube (catheter) into your back passage. This tube allows the radiographer to inflate the bowel with carbon dioxide so that the bowel and lining can be seen more clearly. We will ask you to hold this gas in which may cause a bloating sensation. This may be a little uncomfortable but should not be painful.

During the scan you may be given two injections. The first is a muscle relaxant (an anti-spasmodic drug called Buscopan) that reduces the natural movement of your bowel for the short duration of the scan to make you more comfortable. We will inject this into the muscle in the top of your arm. This injection may cause slight blurred vision – this is temporary, but we advise that you do not drive yourself home after the examination.

The second injection is an x-ray dye (contrast medium) given during the scan to outline your blood vessels. We will give this through a cannula inserted into a vein in your arm or hand.

Some possible side effects from this injection include a warm sensation through the body and a metallic taste in the back of the throat.

A scan will then be carried out with you lying first on your back and then on your front. The test should take about 30 minutes but you should plan on being in the department for up to two hours.

After the examination

At the end of the examination the tube will be removed. You may wish to visit the toilet to expel some air, although the gas will be expelled from your bowel naturally over the course of the next few hours. The gas may cause some bloating and discomfort but this should pass as it is released.

We will check that you are comfortable before you leave and you will be able to eat and drink as normal.

The results will be sent to the consultant caring for you at The Royal Marsden and will be discussed with you at your next clinic appointment.

Are there any risks?

CT Colonography is generally regarded as a very safe test and everything will be done to ensure your safety and comfort, but there are risks associated with any procedure. Problems can occur, but they are rare. These include:

- abdominal discomfort – this should resolve as soon as the test is finished
- a small tear to the bowel wall – the risk of this is 0.3% (one in 3000 people). We will advise you of the possible signs and symptoms and what to do if this occurs
- reaction to the contrast media injected
- there is a risk that the injection given to relax the bowel can cause eye pain and blurred vision within the first 24 hours, however this is very rare. If this happens, you should contact your GP or your local A&E department

- we will expose you to ionising radiation when we carry out this examination. We are all exposed to ionising radiation from naturally occurring sources such as cosmic rays, certain types of soil and rocks and even food we eat. Ionising radiation can cause cell damage that in turn, after many years, may turn cancerous. The radiation associated with your exam will therefore carry a small risk which is less than 0.1%. This risk will be far outweighed by the benefits of having this exposure. We will also tailor the amount of radiation we use to you.

If you have any queries, please do not hesitate to call either the CT scanning department, or your own medical team.

Alternatives to CT Colonography

CTC is an alternative to having an optical colonoscopy, the standard way to examining the large bowel. In this a thin tube with a camera on the end (colonoscope) is passed into the back passage and moved up and around the bowel. The procedure is more invasive than CTC and usually requires sedation. However, it does allow tissue to be removed for testing (biopsy) or polyp removal if needed.

Often, CTC is used where the optical colonoscopy has not been successfully completed, which can happen for a variety of reasons. A colonoscopy can only tell the doctors information about the inside of the bowel, whereas a CTC can also give information about the other structures inside your abdomen.

What preparation will I need?

Your bowel must be completely empty of waste material (faeces) to have a clear view. If it is not, the procedure may have to be repeated. This leaflet explains how you should prepare for your CTC examination.

We will prescribe and provide a medication called *Gastrografin*. You will need to take this as directed below, and must also follow the diet instructions (page 7) the day before the procedure. If you feel unable to follow any of the dietary or medication instructions, or you have any questions, please contact the CT Scanning Department (contact details on page 9).

You must not take the Gastrografin if:

- you have previously had an allergic reaction to intravenous iodine-based contrast (x-ray dye injection)
- you have difficulty in swallowing
- you have an overactive thyroid or Grave's disease.

Please contact us if any of the above apply to you.

What will the bowel preparation do?

Gastrografin may have a powerful laxative effect so you will need to stay close to a toilet the day before your examination. This is intended and will 'clear out' your bowel. Due to the powerful nature of the laxative, your stools will be much looser or you will have diarrhoea. This is a normal part of the preparation.

You will need to complete the preparation, otherwise your bowels may not be clear enough to perform the procedure and you will have to repeat both the preparation and the CTC. There is a small possibility that the medication could affect you by causing you to develop:

- dehydration
- light headedness
- low blood pressure
- kidney problems.

You should continue to drink clear fluids to prevent becoming dehydrated. If you feel lightheaded, you could have a glucose drink such as Lucozade sports energy drink or another sugary drink.

You may experience stomach cramps with the diarrhoea and this is normal. If you have severe stomach pains or vomiting, take the preparation more slowly until these feelings stop. If they continue, seek medical advice from your GP or contact the CT Scanning Department.

Alcohol-free and fragrance-free wet wipes and soft toilet tissue may help minimise the expected irritation from wiping. You can use a barrier cream such as zinc and castor oil or petroleum jelly (Vaseline) on your bottom to prevent soreness.



When do I start to prepare for my CT Colonography?

The following section describes how to take the preparation as well as the special diet which needs to be followed. There is also a section on how to take your regular medication, including the contraceptive pill, where appropriate (see page 8).

Preparing for your CT Colonography	
7 days before your scan	<p>Stop taking any iron tablets including multivitamin tablets.</p> <p>Stop taking laxatives that will cause bulk in your bowels (such as Fybogel or Normacol).</p> <p>Continue all other medication you normally take.</p>
4 days before your scan	<p>Stop taking any medications that may cause constipation, for example lomotil, loperamide (Imodium), or codeine phosphate.</p> <p>Continue all other medication you normally take.</p>
The day before your scan	<p>Remember to drink plenty of fluids.</p> <p>Do not eat any solid food, but clear soups and other liquids are allowed (see page 7)</p> <p>10am: Take the first dose of Gastrografin as described.</p> <p>6pm: Take the second dose of Gastrografin as described (see details on page 7).</p>
On the day of your scan	<p>You must not have anything to eat. You can continue to drink water or sugary drinks.</p>

One day before your procedure

Follow the diet below to ensure your bowel is clear before the procedure.

Do not eat any solid food.

Drink as much tea or water as you like but take at least **1/4 pint (150mls) of fluid every hour** on the hour during the daytime.

You can have clear soups (eg strained chicken noodle soup, vegetable Bouillon), jelly, ice cream, custard, Complan drinks, Bovril and Oxo drinks, water, clear juices, fizzy drinks, coffee and tea (with milk if preferred).

You will need to take the Gastrografin preparation as below:

- **10am:** Drink half the bottle of Gastrografin (**50mls**) – mixed with an equal amount of water (50mls). You can add flavour with fruit juice or cordial, if you wish
- **6pm:** Drink the second half of the bottle of Gastrografin (**50mls**) – mixed with an equal amount of water (50mls) as above.

You should expect frequent bowel movements (diarrhoea), shortly after you take the medication. Some intestinal cramping is normal. You can use a barrier cream such as zinc and castor oil on your bottom to prevent soreness. It is advised that you should stay within easy reach of a toilet once you start taking the medication.

If you develop symptoms of dehydration and cannot increase your fluid intake, you should seek medical attention. These symptoms include:

- dizziness or light headedness on standing up
- thirst
- reduced amount of urine passed.

On the day of your procedure

Do not eat anything. You may drink water or clear sugary drinks.

Do I continue taking my regular medication?

You should continue to take your other regular medicines as usual. On the day of your procedure, take them with only a small sip of water. We will inform you if you need to stop any of your medication. Avoid taking your medications within one hour of taking the Gastrografin as they may not be properly absorbed.

Women taking the oral contraceptive should be aware that taking bowel preparation might prevent the absorption of the pill. Additional contraceptive precautions should be taken until the next period begins.

What happens afterwards?

You may experience some discomfort in your abdomen. This is common after the procedure due to the gas (carbon dioxide) that we have put into your bowel for the examination. This will be absorbed naturally by your bowel over time.

It may take some time for your bowel movements to return to normal due to the bowel preparation (laxative) you have taken. Toilet facilities are available at the imaging department, if needed.

You may now eat and drink as normal. Make sure you drink plenty of fluids in the next 24 hours to ensure that you stay well hydrated.

The results of this examination will be available from your consultant (at The Royal Marsden) in 7–14 days.

Contact details

For any queries or medical advice, telephone your GP surgery or out-of-hours service (your GP 24 hour number), or else go to your nearest A&E (Accident and Emergency) department. Then inform the CT Scanning Department at The Royal Marsden.

CT Scanning, Chelsea 020 7808 2562

CT Scanning, Sutton 020 8661 3222

You can contact the CT scanning department Monday to Friday, 8am – 5pm.

Outside of working hours you can call the main switchboard number: **020 7352 8171** and ask to speak to the Clinical Site Practitioner at Chelsea.

Alternatively, please contact:

The Royal Marsden Macmillan Hotline: 020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

Attend the Accident and Emergency Department at your nearest hospital **immediately**, if following the procedure you experience:

Discomfort in your abdomen that persists for more than a few hours or becomes more severe.

and / or

After the muscle relaxant (Buscopan), you develop pain and redness in both eyes and blurred vision, which can occur in the 24 hours after the test.

Please take this information with you to the hospital.

Sources of information and support

Please talk to the clinical staff responsible for your care, or alternatively contact the Patient Advice and Liaison Service (PALS) on:

Chelsea 020 7811 8438 / 020 7808 2083

Sutton 020 8661 3759 / 3951

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Telephone: Chelsea 020 7811 8438 / 020 7808 2083

Sutton 020 8661 3759 / 3951

Email: patientcentre@rmh.nhs.uk

No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

The patient information service is generously supported by The Royal Marsden Cancer Charity.

royalmarsden.org

Registered Charity No.1095197



Published January 2024. Planned review January 2027
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Radiotherapy and
Chemotherapy Services
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