

# Your CT Colonography

(Gastrografin preparation)

Imaging

## What is this information about?

This information tells you what a CT colonography scan is, how you need to prepare for it, and what happens during your scan. It also tells you about risks, medicines you will be given, and what happens after the scan. It is important that you read this information carefully, so you know how to prepare for your scan, and what to expect.

### **Please contact the department as soon as possible if:**

You're pregnant, think you might be pregnant, or are breast or chest feeding.

You need a hoist or additional mobility aids.

You have an allergy to x-ray contrast agent.

You have a portacath or picc line.

## Where should I go when I arrive for my appointment?

Please head to the X-ray, Radiology or Imaging Department and book in at our reception desk. The department you need to attend will be listed in your appointment letter.

You will be asked to wait in the waiting area. These areas are used for people waiting for different examinations and scans.

Please do not be concerned if there appears to be a lot of people waiting or if others are called in before you.

## Can I continue to take my usual medication?

Please continue to take any prescribed medication. For diabetic medication please see the 'What should I do if I have diabetes?' section below. Remember to bring any medicines like inhalers with you.

## Can I wear my jewellery and bring my valuables?

No. Please leave any jewellery and valuables safely at home.

## Who will perform my scan?

The examination will be performed by a Radiographer or Radiologist. You can ask them any questions that you may have.

## How long will my appointment take?

You may be in the department for up to one and a half hours, but usually no longer than an hour.

## What is a CT scan?

CT stands for computed tomography.

A CT scanner is a ring-shaped machine that uses x-rays to produce 3D images of the body. Instead of producing a single, flat picture, like a radiograph or x-ray, many images are taken in 'slices' through the body during the scan.

These can then be used to make a 3D picture of your bones and organs. This can help us to see inside your body.



Picture of a CT Scanner

## What is a CT colonography scan?

A CT colonography scan focuses on your large bowel, also called a colon.

During the examination, a small flexible tube is inserted into your anus (bottom). Carbon dioxide (CO<sup>2</sup>) is passed through this tube. The CO<sup>2</sup> inflates the bowel so that the lining can be better seen.

Scans are taken while you are lying in two different positions, to get the best possible images of the lining of your bowel.

## Are there any risks with this procedure?

It is very unlikely but possible to have a small perforation of your bowel. This is when a small hole is made in the colon. The chances of this happening are very small. It happens to about 0.02% of patients. Only 0.003 of these need medical intervention. We use CO<sup>2</sup> as this reduces the risk of this happening.

## Do I need to prepare my bowel for the scan?

Yes. To prepare your bowel for your scan, you will need to follow a low-fibre diet and drink a drink called Gastrografin. This is called bowel preparation.

Gastrografin is an x-ray contrast agent. A contrast agent is a liquid that will coat the inside of your bowel. It will highlight the inside of your bowel more clearly, so that it can be more easily seen in the images made by the scanner.

It will also show up any faecal matter (poo) that is left in your bowel. It does not dye these areas permanently.

## Does Gastrografin have any side effects?

Gastrografin may have a laxative effect (make you poo, or give you diarrhoea), so please consider this when planning your day. This does not happen to everyone, and it may not happen until the evening. It may not happen to you at all.

### Be aware

It is important to know that if you do have diarrhoea when you take Gastrografin, this may make the contraceptive pill stop working. If you take the contraceptive pill, use other precautions (such as condoms) when you have sex for the rest of your cycle. If there is any chance that you are pregnant or if you are breast feeding, please contact the Imaging Department as soon as possible.

### Other possible side effects of Omnipaque include:

**Headache:** make sure you drink plenty of water and take painkillers.

**Nausea (feeling sick) or vomiting:** this may mean that you are allergic to gastrografin. Stop taking it, make sure you drink plenty of water, and contact your doctor.

**Rash and breathing difficulties:** this is uncommon. If you have a rash, and find it difficult to breathe, dial 999.

**Anaphylaxis:** this is a severe allergic reaction. It is rare. Dial 999 if you have difficulty breathing, swollen throat or tongue, or feel confused or faint.

**Bad diarrhoea (severe loose or runny poo):** this is rare. Stop taking the Gastrografin, drink plenty of water and contact your doctor.

**Epileptic seizure (fit):** this is rare. Stop taking the Gastrografin, drink plenty of water and dial 999.

# What should I eat and drink the day before my scan, and when should I drink the Gastrograffin?

Please read these instructions carefully. You may not be able to have your scan if you do not follow these instructions.

## Gastrograffin bowel preparation food and drink instructions:

### The day before your scan

|         |                           |  |
|---------|---------------------------|--|
| All day | Do not eat any solid food | You can have clear soups (like strained chicken or vegetable broth), jelly, ice cream, custard, meat extract drinks (like Bovril), nutritional drinks (like Complan), clear fruit juice, carbonated drinks, tea or coffee (with milk is ok) and water. |
| All day | Drink clear fluids        | Drink as much as you want during the day, but you must drink at least 150mls (1/4 of a pint) of fluid every hour on the hour.  |
| 10am    | Gastrograffin             | Drink half the bottle (50mls), you can dilute it with water and cordial to taste.  |
| 6pm     | Gastrograffin             | Drink half the bottle (50mls), you can dilute it with water and cordial to taste.  |

## What should I eat and drink on the day of my scan?

If your scan is in the morning, do not eat any solid food. You can drink water or clear sugary drinks. After the examination you can eat or drink normally.

If your scan is in the afternoon, you can have a small breakfast. This should be a piece of white toast with butter. You can drink water or clear sugary drinks. After the examination you can eat or drink normally.

## What should I do if I have diabetes?

If you have diabetes, your appointment should be in the morning. If you have been given an afternoon appointment, please contact the CT department as soon as possible. The contact details are at the end of this leaflet.

If you take insulin and are not sure about how to prepare for your scan, telephone your diabetes liaison nurse for advice.

If you are diabetic, you are at risk of having a 'hypo' (low blood sugar) if you go without food for any length of time. 'Hypo' symptoms include sweating, shakiness, blurred vision, dizziness and confusion. Please check your blood sugar regularly if you are able. While you are drinking the Gastrografin liquid, you are allowed clear fluids including sugary drinks such as Lucozade, fizzy drinks and fruit juices.

You are welcome to bring a snack with you to eat after the test.

## **The day before your examination**

1. Take insulin and diabetes tablets with your breakfast.
2. Follow the food and drink instructions as normal.
3. Once you have started your preparation, reduce your insulin doses by half and continue your diabetic tablets as normal.
4. Drink clear fluids right up to the procedure.
5. Check your blood sugar four times during the day.
6. If your blood sugar is below five, drink clear sugary drinks to avoid a 'hypo'.

## **The day of your examination**

1. Continue to drink clear sugary fluids if required.
2. Do not take any more insulin/diabetes tablets until after your examination.
3. Check your blood sugar if you can before arriving at hospital.
4. Bring insulin/diabetes tablets and a light meal or sandwich with you to have after the test.

## **What will happen during my scan?**

1. You will be asked to undress, put on a hospital gown and remove any jewelry. You will be able to do this somewhere private.
2. The radiographer will explain the procedure and answer any questions you may have.



3. They will stay with you throughout the procedure apart from when scans are being taken. When the scans are being taken, they will leave the room, but will still be able to see, hear you and talk to you.
4. You will be asked to lie on your side. A small, flexible tube will be placed in your anus (bottom) and a small balloon inflated to help hold it in place. You may feel some pressure from this in your bottom.
5. The radiographer will start passing CO<sup>2</sup> into your bowel and monitor the pressure as it goes in. The gas may make you feel bloated. This might be a little uncomfortable. Please tell the radiographer if it becomes too uncomfortable. Before the gas is introduced, you may be given an injection of a muscle relaxant to help relax your bowel and stop it going into spasm.
6. When there is enough gas in your bowel, the radiographer will leave the room and the scan will be performed. If you are lying in a position that is difficult for you, please tell the radiographer and they will change what they are doing.
7. During the scan, you may also be given an injection of x-ray contrast agent to make the scan images clearer.

## What medication will I be given during my scan?

### Gastrografin

This is a colourless, iodine based liquid used as an x-ray contrast agent that can be taken orally (in the mouth.) A drug leaflet is available on request.

Taken orally, it will coat the wall of the bowel and 'tag' any remaining faecal matter left in the colon. It may also have a mild laxative effect.

## **Omnipaque 300**

This is a colourless, iodine based liquid used as an x-ray contrast agent that is injected through a cannula (a small tube that takes medicine straight into your vein). A drug leaflet is available on request.

You may also be given this solution through a cannula to make the images of other organs in your abdomen clearer. This can make you feel warm, as though you are passing urine (you won't) and give a metallic taste in your mouth which passes after a minute or two.

It is possible but unlikely for the cannula to move during the examination, and the Omnipaque to leak from your vein. This is called an extravasation. Extravasations, although very painful, are not serious. Your body will slowly get rid of the Omnipaque over a few days. If this happens, the radiology staff will look after you and provide an advice sheet.

## **Buscopan**

This is a smooth-muscle relaxant used to get better images and stop the bowel from cramping. Before the examination we may give you an injection to relax the bowel. This will be given before the gas is introduced into the bowel. It may make your mouth dry and blur your vision slightly. This can last for up to 30 minutes.

## Will there be anyone else in the room during my scan?

The Imaging Department helps to train radiographers. Apprentice radiographers and students act under the supervision of a qualified member of staff. If you do not want a student present during your scan, please tell the radiographer.

## What will happen after my scan?

The CO<sup>2</sup> gas will be absorbed by the bowel, but you may feel slightly bloated for a while afterwards. If we have given you an injection of x-ray contrast this will be passed out in your urine over the next 24 hours. You won't notice this.

If we do give you an injection of x-ray contrast, we will keep you in the department for up to an hour after your scan to make sure you are well. You will still be able to drive home when you are discharged from the department.

You can return to eating and drinking as normal following your scan, though your bowel movements (poo) may be loose for a couple of days. You may also be advised to drink extra fluid by the radiographer.

## When will I get the results of my scan?

Your CT scan will be reviewed and reported by a Radiologist. Hundreds of images are taken during your scan which take time to interpret, so you will not receive a result immediately.

Your results will be sent to the clinician who referred you for the scan. They will arrange any follow-up appointments with you.

If you have not heard anything following your scan, please contact the clinician or team who referred you for your scan. The Imaging Department is unable to give out any results directly to patients.

## Are there any risks in having scans that use x-rays?

We are exposed to natural background radiation every day. This comes from the ground, building materials around us, the food we eat, and from the sun. This scan will give you a small extra radiation dose on top of this.

The amount you receive depends on the type of scan you are having. It can range from a few days natural background radiation to a few years.

Some examples of CT radiation doses are shown in the table below, along with a comparison of radiation doses from other sources of radiation. The dose will also vary slightly depending on your size.

The only effect known to be possible at these low doses is a very small increase in the chance of cancer happening many years or even decades after the exposure. The additional cancer risks from these different sources of exposure to radiation are also shown in the table. These risk levels represent very small additions to the 1 in 2 chance we all have of getting cancer at some point during our lifetime.

Your doctor weighs up the risks and benefits from having the scan before they refer you for the scan. They have decided that the potential benefits of having this scan outweigh any possible small risks from the radiation.

| Radiation Source                 | Radiation Dose | Lifetime additional risk of cancer per examination |
|----------------------------------|----------------|--|
| Chest x-ray                      | 0.014 mSv      | 1 in 700,000                                       |
| Transatlantic flight             | 0.08 mSv       | 1 in 200,000                                       |
| UK average annual radiation dose | 2.7 mSv        | 1 in 7,500   |
| CT chest, abdomen and pelvis     | 7.8 mSv        | 1 in 2,000   |
| CT colonography                  | 15.8 mSv       | 1 in 1050  |

## Can I bring my child or children to the scan?

No. Unfortunately there are no child-minding services provided in the hospital. We must stress that unless a responsible adult accompanies you and can look after your children while you are having the scan, you must make different arrangements for childcare.

## Patient confidentiality

Everyone working within the NHS has a legal duty to keep patient information confidential and secure.

If you have any concerns around the use of your medical and diagnostic imaging information, copies of the Care Record Guarantee and Your Medical leaflets can be downloaded from the **UHSussex website** [www.uhsussex.nhs.uk](http://www.uhsussex.nhs.uk). You can get a printed copy from the PALS (Patient Advice and Liaison Service) office.

## Equality and Diversity

We are committed to making sure that patients are free from discrimination regardless of their gender or sexual orientation. If there is a chance you might be pregnant (all patients with a uterus or womb), please inform a member of staff before your scan.

## How to find us

### Royal Sussex County Hospital (BN2 5BE)

The outpatient CT scanners are in the Diagnostic Radiology Department on Level 4 of the Louisa Martindale Building.

### Princess Royal Hospital (RH16 4EX)

The CT scanners are in the X-ray Department on the ground floor of the main building.

### Worthing Hospital (BN11 2DH)

The CT scanner is located in the Radiology Department on the ground floor, East Wing of the main building.

### Chichester Hospital (PO19 6SE)

The CT scanner is located in the Radiology Department on the ground floor accessed through the outpatients entrance.

## Parking facilities and other methods of travel

There are limited car parking spaces available in on site car parks. Please allow time for parking when you attend your appointment.

Further information on parking facilities and other travel information is available on the **UHSussex website**

[www.uhsussex.nhs.uk](http://www.uhsussex.nhs.uk)

# Who can I contact for further information and advice?

## Advice line for CT enquiries

### Royal Sussex County Hospital and Princess Royal Hospital

In times of high demand, it may be difficult to get through.

**01273 523040**

**[ct.uhsussex@nhs.net](mailto:ct.uhsussex@nhs.net)**

9:00 am to 5:00 pm

### Worthing Hospital and Southlands Hospital

**01903 285154 Ext. Option 2**

9:00 am to 5:00 pm

### St Richard's Hospital

**01243 831781 Ext. Option 2**

9:00 am to 5:00 pm

## NHS Friends and Family Test

Did you know you can have your say to help improve our radiology services?

The Friends and Family Test is about giving patients the opportunity to provide quick feedback on their care and treatment experience. You can say what is going well and what can be improved so that we can take your views into account. It doesn't take long and you don't need to give your details on your feedback form.

Scan the QR code below with your tablet or smart phone camera or visit **NHS Friends and Family Test**  
<https://ratemy NHS.co.uk/survey/> to give us your views.



QR Code

To find out more about the NHS Friends and Family Test please visit the **NHS Friends and Family website**  
[www.nhs.uk/using-the-nhs/about-the-nhs/friends-and-family-test-fft/](http://www.nhs.uk/using-the-nhs/about-the-nhs/friends-and-family-test-fft/).

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