

CT Virtual Colonoscopy (CT Pneumocolon) Examination

Information for patients



This leaflet explains what happens during a CT virtual colonoscopy examination (also known as a CT pneumocolon examination). It tells you what is involved and about the risks and benefits of having the examination. It also gives details of what you need to do to prepare for this examination.

Enclosed with this leaflet are three bottles of Gastrografin liquid, which you will need to take as part of the preparation for this test.

If you weigh more than 203kg (32 stone), please contact us on the telephone number at the top of your letter as soon as possible, as you may be above the weight limit for the scanning table.

What is a CT (Computerised Tomography) virtual colonoscopy examination?

This is a scan of the last section of your intestines (the large bowel). The CT scanner uses X-rays to create detailed pictures of your body in 'slice sections' (cross sections).

The CT scanner is an open ring-like structure, which looks like a giant doughnut, rather than a tunnel which everyone expects!

A very small tube will be inserted into your back passage and some carbon dioxide (CO₂) gas will be used to inflate your large bowel and stretch it so that we can see it clearly. Scans will be taken with you lying in different positions on the scanning table.

The CT scanner is linked to a computer which creates detailed pictures in thin slice sections of the inside of your body. These will be examined by a Radiologist, to see what might be the cause of your symptoms.

A more detailed explanation of the scanning procedure is given on page 11.



Are there any risks?

- Exposure to radiation: We are all exposed to radiation from the environment every day of our lives. This is normal and natural. Medical X-rays give an additional dose, which varies with each type of examination. The amount of radiation you are exposed to for this test is kept to a minimum by radiation dose controls on the scanner.
- There is a very small risk (1 in 2,000 chance) of a small tear to the lining of your intestine or rectum, caused when we inflate it with the carbon dioxide gas. This is usually only a risk if you have bowel inflammation or a blockage of the bowel.
- There is a small risk from the Buscopan injection we use to relax your bowel and make the procedure more comfortable. Very rarely, Buscopan may cause increased pressure in the eyes. This is called acute glaucoma. If, after the procedure and injection of Buscopan, you develop severe pain, redness or swelling of your eyes, you must immediately contact your nearest Emergency Department. You will need to tell them that you have had a Buscopan injection. We will give you a letter after the procedure to remind you of this risk and what to do if it occurs.
- You are likely to experience diarrhoea after you have started taking the Gastrografin, so please stay near a toilet.

These risks are similar to those which could occur with other methods of examining the large bowel, such as endoscopic colonoscopy.

Your doctor has recommended this test because the benefits outweigh the risks of the examination. However, this test cannot be guaranteed to detect all abnormalities in the bowel.

How do I prepare for the examination?

You will need to follow the dietary instructions explained below. Take the enclosed Gastrografin in the evenings for two days before your appointment.

Gastrografin works as laxative to empty your bowel and also as a 'dye' to show up faeces in your bowel. It is sometimes referred to as a 'contrast medium'.

How do I take Gastrografin?

Please start the diet shown on pages 7 and 8 two days before your appointment. Take the Gastrografin as follows:

- 5.00pm-8.00pm – **two days before** your appointment, add 2 bottles of Gastrografin (35ml per bottle) to 250mls (approximately one medium sized glass) of water. Flavoured squash can be added if you wish to improve the taste. Try to drink this within 30 minutes. You can have this with or without food.
- 5.00pm-8.00pm – **on the day before** your appointment, add the third bottle to 250mls of water/squash as above.

Does Gastrografin have any side effects?

As explained in the side effects section, the Gastrografin is likely to cause diarrhoea, so please stay near a toilet after you have started taking the Gastrografin.

Drink water regularly throughout the day – you can add flavoured squash if you like. Aim to drink up to 1.5 to 3 litres a day, to help prevent headaches and dehydration. Make sure you drink enough to satisfy your thirst.

Please contact us if you are on fluid restrictions.

Can I take my other medications?

You can continue to take your regular medicines as prescribed, unless you have been told otherwise.

If you are taking interleukin 2, or have done within the last two weeks, please telephone and tell us the last date that you took this medicine. Interleukin 2 can affect how Gastrografin works.

If you are taking beta blockers please telephone us if you get an allergic type reaction after taking the Gastrografin. Signs of an allergic reaction are:

- raised itchy skin rash (hives)
- wheezing
- chest tightness
- swollen lips, tongue, eyes or face
- itchy watering eyes.

When should I not take Gastrografin?

If you are sensitive to iodine containing contrast media (X-ray dye) or you have hyperthyroidism which is not controlled by drugs, you should not take the Gastrografin. Please contact us to discuss this.

If you are pregnant or think you might be pregnant, please telephone the Radiology department to discuss your scan. **Do not** take the Gastrografin before you speak with us.

If you are having tests for thyroid disorders, or taking thyrotropic radioisotopes, Gastrografin may make any tests or treatment less effective for several weeks. Tell your doctor that you are about to or have had Gastrografin recently.

Caution

Keep all tablets and medicines out of reach of children. Never give any medicines prescribed for you to anyone else.

Diet instructions

It is important to follow the guidelines below prior to the test. What you eat will improve the performance of the bowel preparation and the diagnostic accuracy of the procedure.

The diet in the table is a 'low residue' diet which is low in fibre and foods which are slow to digest. A low residue diet is designed to leave only a small amount of undigested food in the digestive tract. This reduces the amount of stools in the bowel. It is the opposite of a high fibre diet, as you need to avoid high fibre foods. Low residue diets are generally for short term use only.

If you are diabetic and have concerns about the management of your diabetes whilst following this low residue diet, please seek advice from your GP or diabetic nurse specialist. You can also call us using the telephone number on your appointment letter.

This table shows the foods which are allowed and not allowed.

	Foods ALLOWED	Please AVOID
DAIRY	Low fat, plain yoghurt Up to 2 cups of low fat milk (500mls in total) Eggs	Yogurt with fruit skin or seeds Strongly flavoured cheeses Butter
MEAT	Fish Poultry	Red meat (beef, lamb, pork)
POTATO/ CARBOHYDRATES	White rice Pasta (white or gluten-free) Noodles/macaroni Potato with no skin	Potato with skin Brown rice Whole wheat pasta
BREAD/CEREAL	White bread Plain crackers (not with seeds) Cooked rice	Wholegrain (bran or cornmeal) breads Corn-based crackers, chips and cereals, popcorn Oat cakes

	Foods ALLOWED	Please AVOID
FRUIT/ FRUIT JUICES	Clear fruit juices	Raw fruits Raisins Dried fruits Prunes and prune juice
DRINKS	Coffee Tea Carbonated (fizzy) drinks Water Fruit flavoured drinks Squashes Alcohol in moderation (unless your doctor has advised you not to drink alcohol)	All others
SOUPS	Clear or strained soups	All others
DESSERT	Jelly Fruit sorbet	Coconut Nuts Seeds
MISCELLANEOUS	Salt Pepper Jelly Sugar Honey Golden syrup	Cloves Seed spices Chilli sauce Barbeque sauce Strong spices or sauces Mustard Jam Marmalade Peanut butter

Examples of low residue/fibre food for vegans:

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|------------------------------------|
| • Seitan |
| • Tofu |
| • Soy milk, almond milk, rice milk |
| • Soy yoghurt |
| • Soy cheese |
| • Plain crackers |
| • Rice Krispies |
| • Cous cous |
| • Soups |
| • Potatoes (no skin) |
| • Pasta (white or gluten-free) |
| • White rice |
| • White bread |

Plus all the fruit and vegetables included in the previous table.
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Two days before the scan

1. Breakfast – You may have your normal breakfast.
2. Lunch and Dinner menu suggestions:
Soup, fish, white meat (chicken/turkey), white rice, white bread, dry crackers, dessert. Please refer to the table of allowed foods for guidance.
3. 5.00pm-8.00pm – 2 bottles of Gastrografin diluted in 250mls water/squash as per instructions on Page 5.
4. Drinks regularly throughout the evening – it is important that you do not become dehydrated.

Day before the scan

1. Breakfast – one or two slices of white bread (no butter or jam).
2. Lunch/Dinner menu suggestions:
Soup, fish, white meat (chicken/turkey), white rice, white bread, dry crackers, dessert or fruit (as shown in the table). Please refer to the table of allowed foods for guidance.
3. 5.00pm-8.00pm – 1 bottle Gastrografin diluted in 250mls water/squash as per instructions on Page 5.
4. Drinks regularly throughout the evening and in the morning before coming for the scan – it is important that you do not become dehydrated.

On the day of the examination

If you have a morning appointment (up to 1pm), please do not eat anything before you come. You may continue to drink liquids, as listed in the diet table, to satisfy your thirst. You can have tea or coffee with milk, as long as you don't exceed the amount shown in the food table.

If you have an afternoon appointment you may have a light breakfast and lunch from the foods and drinks listed in the diet sheet. Please drink as required to satisfy your thirst.

You will be in the Radiology department for approximately one to one and a half hours. However, the radiology department is also used when emergency patients are brought to the hospital. If this happens, your appointment may be slightly longer.

When you arrive in the Radiology department you will be greeted by reception staff and directed to a CT waiting area. The radiology staff will check your identity and prepare you for the scan.

You will be given some more Gastrografin to drink which is more dilute than the Gastrografin that you took at home. This will show up the upper part of your digestive tract (the small bowel) when you have the scan.

A cannula (small plastic tube) will be inserted into a vein in your arm, so that we can give you an injection of Buscopan during the procedure. This cannula will either be put in when you are in the CT waiting room or later, when you go into the scan room.

Can I bring a relative or friend?

Yes, but they will not be able to go with you into the scan room, except in special circumstances. Please be aware that there is limited seating in the waiting area, so during busy periods accompanying visitors may be asked to return later for family and friends.

In the scan room

After you have had your drink you will be asked to change into a hospital gown. This is to make sure that no metal coins, buttons, zips, coins or bra straps are seen on the pictures.

Firstly, we will ask you to lie on your left side. We will then gently insert a small tube into your back passage. Carbon dioxide gas will slowly be pumped into your bowel, using a special machine. This may make you feel bloated and 'full'.

You will also be given an injection of Buscopan through the cannula in your arm/hand, unless you are not able to have Buscopan (we will check this with you). This will help to relax your bowel and make you feel more comfortable. It also improves the quality of the pictures.

We will take scan pictures of you laying on your front, your back and possibly your side. You will be asked to hold your breath during each scan. If you think you might find this hard to do, please let the CT staff know when you are in the scan room.

After all the necessary scans have been taken, the tube will be removed. You will then be able to use the toilet, if you feel you need to do so.

Side effects and what to expect after the examination

You can leave straight after the scan, as long as you feel well enough to do so.

You may want to rest at home for the remainder of the day.

It is normal to get cramp like abdominal pains during the examination and shortly afterwards. This discomfort will ease, as the carbon dioxide gas is absorbed by your body in the hour or so following the scan.

You may continue to have some diarrhoea for one or two days after the scan.

The Buscopan injection may cause your eyesight to be blurred for the next few hours. Do not drive or operate dangerous machinery until you are sure that your eyesight has returned to normal.

Very rarely, Buscopan can cause a painful red eye or eyes. If this happens, you will need to go to your nearest Emergency Department (A and E) immediately.

When and how will I know the results of the examination?

The pictures of your bowel will be examined by a radiologist, who will complete a report of the results. These will be made available to the person who referred you.

If your GP referred you, the report will be available to them 10 days after the scan.

If a hospital doctor or consultant from the outpatient department referred you, then a report will be available to them in time for your next outpatient appointment. If you do not yet have another outpatient appointment and do not hear anything within 3 weeks, please contact your consultant's secretary for advice. If you do not have their number, please phone the hospital switchboard and ask to be put through to your consultant:

Tel: **0300 304 7777**

Questions or concerns

If you have any questions or are unable to come for your appointment, please telephone us using the telephone number on your appointment letter.

Further information

Further information can be found on the following websites:

Royal College of Radiologists

There is useful information about different types of scans under the 'What to expect' section.

Website: www.rcr.ac.uk/public-and-media/what-expect-when

NHS Choices

Website: www.nhs.uk/Conditions/CT-scan/Pages/Introduction.aspx

For information about the Oxford University Hospitals:

Website: www.ouh.nhs.uk

If you have a specific requirement, need an interpreter,
a document in Easy Read, another language, large print,
Braille or audio version, please call **01865 221 473**
or email **PALS@ouh.nhs.uk**

Authors: Helen Nicholl, CT Superintendent Radiographer
Dr Andrew Slater, Consultant Radiologist
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Review: February 2020
Oxford University Hospitals NHS Foundation Trust
Oxford OX3 9DU
www.ouh.nhs.uk/information

