

CT Virtual Colonography



A Patient Information Booklet

Contact Numbers

Raigmore Hospital

enquiries regarding appointment date or time: 0800 032 9021

enquiries regarding the CT colonography procedure: 01463 706695

Belford Hospital X-ray Department 01397 702481
Ext 4227

Caithness General X-ray Department 01955 880247

Broadford Hospital (Skye) (Reception) 01471 822491

Lorn and Isles District Hospital, Oban 01631 789054

Diabetes advice (9am to 5pm) 01463 255948

Summary (Non Diabetics)

- 1 day before the CT appointment – start low fibre diet
- Take 50 ml of diluted gastrografin liquid the evening before scan (diluted to 500ml)
- Take 50 ml of neat gastrografin 2 hours before the scan time
- Drink plenty of fluids
- Be prepared for frequent or loose bowel motions
- **Diabetics – please see specific advice in separate section below**

What is Computed Tomography Colonography?

It is a special type of CT scan to look at the large bowel (colon) and abdomen. Sometimes we also scan the chest.

It is also known as virtual colonoscopy or CT pneumocolonography.

How do I prepare for the test?

You must eat a low fibre diet in place of your normal diet for the 24 hours period before the CT colonography scan.

On the day before the CT colonography scan, you are also asked to dilute half (50 ml) of the contents of the 100 ml bottle of gastrograffin liquid, (which is found in your pack), in 500 ml of tap water (just under a pint) and to drink this at around 6 pm or just after your evening meal.

The second half (50ml) of the gastrograffin in the pack, is to be drunk neat (DO NOT DILUTE) on the day of the scan, 2 hours before your scan appointment.

As there may be some increased bowel motions leading up to the scan, from the gastrograffin and because we give some X-ray dye into the vein during the scan, we ask you to drink plenty of water and fluids for the few days leading up to and after the scan.

What about my medication?

Most tablets should be fine to continue up until the day of the scan.

If you have **DIABETES** please see the section on how to manage this during preparation for the procedure at the end of this leaflet.

If you are in doubt, please call us. Contact details are listed on the inside front cover of this leaflet.

It is very important that you follow the instructions below carefully.

The day BEFORE the scan appointment:

You must follow a low fibre diet below for the 24 hour period before the scan, eating foods from the “foods / ingredients allowed” list and avoiding food with fibre which is the indigestible part of cereals, fruit and vegetables.

Drink plenty of fluids.

Foods / Ingredients allowed

Tender lamb	Boiled potatoes (no skins)	Shortcake
Tender beef	Mashed potatoes (no skins)	Cream crackers
Tender pork	Tomato (no skins or seeds)	Water biscuits
Tender ham	Spaghetti / Pasta	Sponge cake
Chicken	Cooked eggs	Madeira cake
Offal	White rice	Ice cream
Bacon	White flour	Iced lollies
Fish	Cornflakes	Plain or flavoured yoghurt
White bread	Rice crispies	Boiled sweets
Pancakes	Clear jellies	Toffees
Yorkshire pudding	Pastry made with white flour	Plain or milk chocolate
Clear/pureed soups	Bread sauce	Honey
Oxo	Syrup	Sugar or glucose
Bovril	Soft cheese	Clear mints

Foods to be avoided

Fruit and vegetables; wholemeal, wheatmeal and granary bread, wholemeal flour; bran biscuits, coconut biscuits, digestive biscuits, Ryvita, oat cakes etc., all cereals containing bran or wholewheat, eg: shredded wheat, bran flakes, bran buds or muesli.

Fluids allowed (“clear fluids”)

Water	Soda water	Oxo
Tea	Tonic water	Bovril
Coffee	Fizzy drinks	Marmite mixed with hot water
Strained fruit juice	Strained tomato juice	Clear or pureed soup
Fruit squash	Thin soups (not lumpy)	Milk (small amounts)

Fluids not allowed

Drinks or soups thickened with flour or other thickening agents.
Milk – you can use a small amount in tea / coffee / cereal but avoid large volumes.

The day BEFORE your scan:

Begin the low fibre diet.

Take the diluted gastrografin liquid following the instructions below. The gastrografin has a slight laxative effect and so you should expect extra bowel movements after the first dose.

You must have close access to a toilet.

Please remember to drink plenty of fluids from the “*fluids allowed list.*”

The gastrografin liquid has an aniseed flavour. It also contains some iodine. If you have had an allergic reaction to x-ray contrast in the past or an allergy to iodine, we may need to give you an alternative preparation. **Gastrografin should not be taken if you have hyperthyroidism and are going to receive radio-active iodine treatment.** If either of these apply to you, please telephone us for advice on **01463 706695**.

Instructions for the day before the scan appointment:

Drink plenty of fluids through the day.
Begin the low fibre / residue diet first thing in the morning.

From 6 pm, eat no further solid food until after the scan (for individuals with diabetes please see instructions later). Continue to drink plenty of the “allowed” clear fluids.

At 6 pm : Take the first, 50ml of Gastrografin liquid from 100ml bottle ie half of the bottle and dilute this in 500 ml or roughly one pint glass of simple tap water.

On the day of the CT scan:

Drink plenty of fluids. Avoid solid food for breakfast.

2 hours before the scan appointment :

Take the second, 50 ml of Gastrografin liquid from the 100ml bottle i.e. the other half of the bottle.

Drink this neat (**DO NOT** dilute with water this time).

When you arrive in the CT Department you will be asked to change into a hospital gown. A member of staff will put a needle (cannula) into an arm vein, usually once you are in the scan room. This is so that a muscle relaxant (Buscopan®) and x-ray contrast (dye) medium can be injected during the scan.

It is helpful to know if you are aware of having certain conditions such as Glaucoma or a strong history of heart disease for this stage. We will ask you some questions and explain the procedure to you so that you understand what is happening. You can also ask us questions at any time.

Once you are lying on the scanner table and set up, one of the team will insert a small tube into the rectum. This allows the colon to be filled with carbon dioxide gas, using a special machine. Two scans are then performed, one with you lying on your back and a second with you lying on either your side or your tummy. Occasionally a third scan may be needed to get more complete views.

Are there side effects or risks from the procedure?

CT scanning involves x-rays. Female patients who are or might be pregnant must inform a member of staff in advance.

The amount of radiation used is more than an ordinary x-ray of the chest or body and is equal to the natural radiation we receive from the atmosphere over a period of approximately three years but new techniques mean we have been able to reduce doses in Highland.

You will usually have a contrast medium injected into a vein in order to increase the amount of information obtained from the scan. The injection usually causes nothing more than a warm feeling passing around your body and possibly a short lived, metallic taste. **If you have had an allergic reaction to x-ray dye previously you must let the staff in the CT department know before any injection.**

The bowel preparation can slightly dehydrate you, which makes the Xray contrast more difficult to flush through your kidneys. This can occasionally cause problems to the kidneys and it is important that you try and counteract this by drinking plenty of fluids prior to and just after the scan.

Buscopan® (a muscle relaxant) can make the mouth dry and the vision slightly blurred. These symptoms normally only last for 15-20 minutes. It is important that you wait until your vision has returned to normal if you are driving after the scan. Ideally, we advise that you get a lift or use public transport. Very rarely patients may develop glaucoma which causes pain or redness of the eyes, within the 24 hours after the test. If this happens you must go to hospital IMMEDIATELY for an eye check up or attend Accident and Emergency.

Perforation of the bowel can occur with this test but fortunately this is very rare (approx 1 in 3000 tests). When it happens, most cases are not even obvious to the patients or doctors and resolve without treatment. However, it may require hospital admission and observation under the care of a surgeon.

Despite these slight risks, your doctors believes it is advisable that you should have this examination, and do bear in mind there are greater risks from missing a serious disorder by not having the test.

Please remember this test is safe - serious complications are rare.

How will I get my results?

A Consultant Radiologist will interpret the scan.

You will not be told any results on the day of your test.

You will be sent an appointment to attend the relevant hospital clinic or you will be contacted by letter from your consultant/specialist with the results.

Can I eat normally after the test?

Yes, eat normally and drink plenty of fluid for the next day or so as you may still be dehydrated.

Consider bringing a sandwich and drink with you to eat afterwards, as you may be hungry after fasting.

If you have any questions, please contact the appropriate X-ray department. Phone numbers are given on the inside front cover.

If you have diabetes, please see instructions over the page.

Specific instructions for people with diabetes

If you are being treated by diet alone

Follow the advice for non diabetics, above.

If you are being treated with tablets and/or insulin

You should **inform the appointment department** (phone number is inside the front cover) about your diabetes and **request an early morning appointment.**

General Advice:

1 day before the day of your CT colonography

As advised earlier in this document, there is one day of preparation before the day of the CT colonography. When following the low fibre diet try to make sure you eat your usual amounts of carbohydrate from the allowed list e.g. white bread, white rice, pasta etc. Continue to take your usual tablets and/or insulin and check your blood sugar levels as usual.

Adjusting your diabetes medication to prevent low blood sugar

You may need to adjust your treatment the evening before and the morning of the CT colonography to reduce the risk of a low blood sugar level (hypoglycaemia). As a result your blood sugar control may be a little higher than usual. This is only temporary to maintain your blood sugars through the procedure and you should be back to your usual level of control within 24 to 48 hours.

What to do if your blood sugar is low (<4mmo/l)

If you develop any symptoms suggestive of a low blood sugar (sweating, shakiness, fast heart rate) check your blood sugar if you have a meter and treat with either 120 ml Lucozade® or 150ml full sugar (not diet) lemonade. Repeat blood sugar after 10mins and

take the same quantity of Lucozade® or lemonade if still <4.
If you don't normally check your blood sugar, take another 120ml Lucozade® or 150 ml lemonade if you still have symptoms 10 mins after the initial treatment.

Blood sugar monitoring

If you usually test your blood sugar levels, check them, as usual, on the morning of the CT colonography and carry your equipment with you to the appointment. If you do not usually test your blood, do not worry, your blood levels will be checked when you arrive for the procedure.

People on tablets only

If you are taking a sulphonylurea (Gliclazide, Glipizide, Glibenclamide, Diamicron® MR)

On the day BEFORE your CT colonography:

- Follow the bowel preparation regime
- Aim to replace your usual carbohydrate using sugary drinks from the list of clear fluids.
- Take half your usual dose of tablets.

On the day of your CT colonography

If you have a morning appointment, take your usual diabetes tablets with a light breakfast (this differs to the non diabetic leaflet advice to avoid breakfast). Please take the second drink of the gastrografin (50 ml) straight after this meal, ideally 2 hours before the scan time (remember not to dilute this half of the bottle).

For an afternoon appointment, take half the usual morning dose while continuing with the clear fluids. Take your usual dose of tablets with your evening meal after the procedure.

If you are taking Sitagliptin (Januvia[®]), Saxagliptin (Onglyza[®]), Linagliptin (Trajenta[®]), Liraglutide (Victoza[®]), Pioglitazone (Actos[®]), Exenatide (Byetta[®]) or Exenatide once weekly (Bydureon[®]).

You should continue on this medication as normal.

If you are taking Metformin, Nateglinide (Starlix[®]), Repaglinide (Prandin[®]) or Dapagliflozin (Forxiga[®]).

- You should stop this medication two days before your CT colonography.
- You should restart this medication no sooner than 48 hours after your CT colonography. If you are on Metformin and have kidney impairment you will need to have a blood test for kidney function prior to restarting Metformin after the scan. Your doctor will advise if this is necessary.

People who take insulin

People on twice daily insulin (Humalog® Mix 25 or 50, Novomix® 30, Humulin® M3).

On the day BEFORE your CT colonography

Aim to replace your usual carbohydrate intake from the list of permitted clear fluids.

On the day before your test you should halve your daily insulin dose and continue blood sugar monitoring.

On the day of your CT colonography

If you have a morning appointment, take half your usual dose of insulin with a light breakfast (White bread, toast and clear fluids from list).

If you have an afternoon appointment, take half your usual morning dose of insulin and continue clear fluids. You may have a light lunch before the procedure. In both cases, please take the second drink of the gastrografin (50 ml) straight after this meal, ideally 2 hours before the scan time (remember not to dilute this half of the bottle).

Return to your normal insulin regime with your evening meal.

People on Glargine (Lantus®) or Levemir® (Detemir®)

Reduce long acting insulin by 20% the night before the low fibre diet begins.

Reduce short acting insulin by 50% if 2 or more blood sugars are less than 4mmol/l.

On the day before the test, take half your normal dose of long acting insulin and continue regular blood sugar testing.

On the day of your CT colonography

If you have a morning appointment, take half your normal morning dose of insulin with a light breakfast (White bread, toast and clear fluids from list)

If you have an afternoon appointment, do not take your mealtime breakfast insulin. Take half the normal dose of Lantus® or Levemir® if usually taken at breakfast time. At lunchtime take half your usual lunchtime dose of mealtime insulin with a light lunch before the procedure. In both cases, please take the second drink of the gastrografin (50 ml) straight after this meal, ideally 2 hours before the scan time (remember not to dilute this half of the bottle).

Start back on your usual regime with your evening meal.

If you have concerns about adjusting your insulin dosage, please contact the Diabetes Nursing Team on 01463 255948 well in advance of the appointment, to discuss appropriate measures.

 **Virtual Colonoscopy Academy**
Virtual Colonoscopy Courses

www.virtualcolonoscopyacademy.com



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