Virtual Colonography (VC) /CT colonography

Radiology Department
This leaflet tells you about having a virtual colonoscopy (VC) also known as a CT colonography. It explains what is involved and the possible risks. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you.

**What is virtual colonoscopy (VC)?**

A VC involves using a CT scanner to produce 2D and 3D images of the whole of the colon (large bowel) and rectum (back passage) to look for polyps (fleshy growths) or signs of cancer.

You may have been referred for this test to help your doctor find out what is causing symptoms such as abdominal (tummy) pain, weight loss, a change in your usual bowel habit or blood in your faeces (stools).

**Are there any alternative tests?**

- **Barium enema** is a test which also examines the large bowel (colon and rectum). It is not as accurate at picking up small polyps and signs of cancer as VC.

- **Colonoscopy** uses a flexible tube with a camera on the end to directly visualise the large bowel and continues to be the main test for looking at the bowel. It is more invasive than VC and usually requires sedation. However a biopsy or sample of tissue can be taken at the same time if required. VC is as accurate as colonoscopy.

Both of these tests require that the bowel be cleaned with medication (laxatives) prior to the test in the same way as VC.
Are there any risks?

VC is regarded as a very safe test.

There is a small risk that inflating the colon (carbon dioxide is introduced into the tummy cavity to expand it so that the colon is well seen) may cause a tear (perforation). The risk of perforation is about 1 in 3000 and is lower than that of a colonoscopy.

There is a link between developing cancer and excessive exposure to radiation. We keep the radiation dose to an absolute minimum and the dose you are exposed to during a VC is approximately the equivalent to three years natural background radiation (i.e. the amount of natural radiation you would receive from living in the UK for three years).

However, your doctor feels the benefit of an accurate diagnosis outweighs any potential health risks.

Do I have to do anything before my virtual colonoscopy?

The bowel lining needs to be clear for us to get good pictures and you will need to follow a low fibre/low residue diet two days before the test and take bowel cleansing agents, strong laxatives and a liquid, the day before. You will want to stay close to a toilet once you have taken the laxatives. This is explained in the accompanying patient information leaflet – Taking Bowel Preparation.

If your doctor has not arranged any recent renal function blood tests, you may be sent a request for blood to be tested prior to your appointment.
Can I take my normal medications?

Yes, you should continue all your normal medications. If you are diabetic you may need to amend your normal doses. You may take glucose to correct your sugars. If you are unsure what to do, please contact your Diabetic Nurse Specialist or GP for advice.

7 days before your procedure:
Stop taking all iron tablets but continue other medication.

4 days before your procedure:
Stop taking any anti-constipation agents i.e. Fibrogel®.

2 days before your procedure:
Eat foods which are low in fibre. See accompanying leaflet regarding bowel preparation and dietary advice.

Can I bring a relative or friend?

Yes, but for reasons of safety, they may not be able to accompany you into the examination room, except in very special circumstances.

What happens during the test?

- The radiographer will explain the test to you and answer any questions you may have.

- You will be asked a series of medically related questions prior to the procedure.

- You can expect to be in the department for approximately 30-40 minutes.

- You will be asked to change into a hospital gown, removing all garments.

- You will have a small plastic cannula (fine tube) put into a vein in your arm before of the CT scan.
Once on the CT scanning couch, a small flexible plastic tube will be inserted into your back passage which is secured by inflating a small balloon.

Carbon Dioxide (CO2) is then gently introduced into the bowel via the tube in the back passage. This is to distend (swell up) the bowel so we can get good pictures of the entire colon. This may feel a little uncomfortable and you may feel bloated; like having ‘bad wind’. The carbon dioxide is absorbed quickly and safely by the body.

You may be given a small injection of muscle relaxant (Buscopan) through the same cannula, to help relax the bowel.

The muscle relaxant also affects the muscles of the eyes, making vision blurry for approximately thirty minutes so driving home must be delayed until such time when the effects of the muscle relaxant has worn off.

You may be given intravenous iodine based contrast (dye) through the cannula into the vein during the CT scan.

When we are happy there is enough gas in the bowel, you will lie on your back for the first part of the CT scan.

You will be asked to hold your breath and the scan itself takes about 10-20 seconds during which time the iodine based contrast (dye) will be injected through the cannula (small tube) in your arm.

The radiographer will then help you turn over onto your front (or on your side if lying on your front is not possible) and will perform a second CT scan. You will be asked to hold your breath and the scan itself takes 10-20 seconds.

The radiographer will then check that the images are taken are satisfactory.

The tube will be removed and you will be able to go to the toilet to make yourself more comfortable.

You will be required to stay within the department for a minimum of 15 minutes after the procedure. You may then get dressed and go home if you feel well.
How long will it take?

The scanning process will take up to twenty minutes. Unless you are delayed by having to wait, such as for an emergency patient, the total time in the department will be about sixty minutes.

Are there any side effects and what happens after the examination?

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

It is normal to get abdominal cramp-like pains over the next few hours. The CO2 gas will be absorbed in the next hour or so after the scan.

Very rarely, in people who are already at risk of closed angle glaucoma, the muscle relaxant can cause a very painful red eye. **If this happens you should call your GP as an emergency or attend the A&E department immediately.**

If you have a muscle relaxant injection you must delay your journey home for approximately thirty minutes.

Can I eat and drink afterwards?

Yes, you can eat and drink normally.

Fluids are especially encouraged as the bowel preparation will have caused you to be dehydrated.

When will I get the results?

The scan will be reported after your visit and the findings sent to your referring doctor, which is normally within 14 days. If your clinic appointment is within this time please inform the radiographer.
Information for female patients

As this test involves x-ray radiation which can be potentially harmful to an unborn foetus, you must ensure there is no possibility of pregnancy prior to this procedure.

The strong laxatives used for clearing the bowel can interfere with the effectiveness of the oral contraceptive pill and you must take extra precautions for the remainder of the cycle. Please continue to take the oral contraceptive pill as normal.

Privacy and dignity

Sometimes tests, although necessary, can be embarrassing or undignified for patients but we promise to do everything we can to make you as comfortable as possible during your visit to the department. We hope that the information in this leaflet will answer any questions you may have but please feel free to contact us if you have any particular worries, questions or concerns.

Patient surveys

We value your opinion on our service and in order to deliver, maintain and improve this service we ask you to complete a short patient questionnaire survey found on the appointment letter. Completion of these surveys is entirely voluntary.

Questions and contacts

Following the examination, if you experience any problems please contact the CT Department between 08:30 and 17:00. Outside these times please contact your GP.

If you have any questions or would like to know more about this procedure, please telephone the CT Department on:

01483 464151 (Direct line)
01483 571122 Extension 4151 / 4414

If you are unable to keep your appointment notify the CT scanner clerical staff as soon as possible.
For further information about Diagnostic Imaging Services at Royal Surrey County Hospital NHS Foundation Trust, please contact:

Royal Surrey County Hospital NHS Foundation Trust
Egerton Road
Guildford
Surrey
GU2 7XX

www.royalsurrey.nhs.uk

Key reference sources and other sources of information

Websites:

- For general information about radiology departments visit The Royal College of Radiologists’ website: www.goingfora.com
- NHS Direct
  For health advice or information you can call NHS Direct on 0845 45647 or visit the website: www.nhsdirect.nhs.uk
- Royal Berkshire NHS Foundation Trust Patient Information Leaflet: www.royalberkshire.nhs.uk
- NHS photo library: www.nhs.photolibrary.com
How to find the Radiology Department

Royal Surrey County Hospital map
Level B (Ground floor)
Contact details

If you have any questions or would like to know more about this procedure, please telephone the CT Department on:

**Telephone:** 01483 464151 (Direct line)

**Telephone:** 01483 571122 **Ext** 4151 / 4414

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Royal Surrey County Hospital (RSCH) NHS Foundation Trust fully subscribes to the National Patient Safety Agency (NPSA) *Being Open* best practice framework, November 2010.

**PALS and Advocacy contact details**

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located in far left corner as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

**Telephone:** 01483 402757

**Email:** rsc-tr.pals@nhs.net

**Opening hours:** 9.00am–4.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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