

Having a CT Colonography (CTC) Scan



Please report to the reception desk in the Radiology department (B8) with your appointment letter 10 minutes before your appointment time.

What is CT colonography (CTC)?

CT colonography is a computed tomography (CT) examination to look at the large bowel (colon). It is a method of diagnosing diseases of the large bowel.

A CT machine (see photograph above) uses x-rays and advanced computers to create detailed images. These images are then examined to check the health of your bowel.

Why have I been offered a CTC scan?

You have been advised to have a CTC scan because you either:

- Had a colonoscopy but we couldn't see the whole length of your large bowel, or
- You have been told that colonoscopy wasn't a suitable investigation for you.

What do I need to do before the CTC scan?

It is very important that you have a well prepared bowel so that we can take good quality images. Before you attend for your scan you will receive a list of dietary restrictions and a bowel preparation medicine. **Please follow the instructions you are given very carefully.**

If you are taking **Metformin** for diabetes we may ask you stop taking the tablets for a short time.

What happens during the scan?

You will be looked after by a radiographer. He or she will explain the process, and ask you to change into a hospital gown. The radiographer may put a small cannula (needle) into a vein in your arm. You will be helped onto the scanner table and asked to roll onto your side. A thin flexible tube will gently be inserted into your bottom. Some carbon dioxide gas will be passed through the tube to gently inflate your large bowel. Additional gas is then introduced when necessary to keep the bowel inflated. A muscle relaxant may be given through the cannula which will reduce any discomfort.

The radiographer will then help you into the correct position for the first scan. The radiographers will briefly leave the room but they will be observing you closely through the scanner room window. You will be able to talk to them via an intercom system. When the scan starts you will be asked to hold your breath for a few seconds, and you will feel the table moving slowly.

The radiographer will then ask you to turn over into the next position (this may be onto your front or side) and they will repeat the scan. They will then check the quality of the images. Occasionally, further scans may be required to look more closely at an area that hasn't shown up clearly. A dye used during x-rays (called a contrast agent) may be given through the cannula to improve scan detail.

At the end of the scan, the tube will be gently removed from your bottom and you will be asked to go to the toilet and then get dressed. The whole investigation will take no more than 30 minutes.

If you have had an injection of dye, you will need to stay in the department for 20 minutes after your scan. A radiographer or helper will then take the cannula out.

You may eat and drink as normal as soon as the examination is finished.

You may wish to rest at home for the remainder of the day, although most people are able to resume their normal daily activities.

When do I get my results?

A specialist doctor (radiologist) will write a report and send this to your consultant or GP. As it takes time to report the scan you will receive your results on another day from your consultant or GP.

Females

Women are asked to contact the Radiology department if you suspect that you may be pregnant **or** if the appointment is more than 10 days after the start of your last period.

This test uses radiation and there is a risk to the unborn baby if we perform the CT scan when you are pregnant.

When you arrive for your test, you will be asked when your last period started. If it is more than 10 days earlier, your appointment will be postponed.

If you are taking the oral contraceptive pill, diarrhoea can make it less effective. Continue taking the pill but use other precautions for the rest of that cycle.



Are there side effects from having CTC?

Radiation dose

A CTC investigation uses x-rays to produce the images. Medical radiation does carry a very small health risk. The radiation that you receive during a CTC scan is equivalent to approximately 2 years of natural background radiation (from your surroundings). This is considered by the UK Health Protection Agency to carry a very low risk [1]. The CT department monitors radiation doses very carefully and always uses the lowest dose needed to gain good quality images.

Expected side effects

Minor side effects may include:

Dehydration caused by the bowel preparation medicine. You will need to drink plenty of fluids before and after your scan.

Dry mouth and blurred vision caused by the muscle relaxant injection (if given). This should wear off within 30 minutes, but please do not drive until your vision is back to normal.

Feeling of warmth and occasional strange metallic taste with a feeling as if you have passed urine for a few moments, caused by the contrast agent injection (x-ray dye) if given.

Bloating in your tummy during and after the procedure, caused by the gas used to inflate the bowel. This soon wears off once you have been to the toilet and passed wind.

Haematoma (bruising) can occur at the injection site.

Rare complications

More serious complications are very rare, but the radiography staff are well prepared to manage them safely. They will make sure you don't have any of these symptoms before sending you home:

Feeling faint following injection of the muscle relaxant (if given).

Allergic reaction and **kidney complications** associated with the contrast agent (if given).

Abdominal pain

Perforation of the bowel (a small hole in the bowel wall). This is very rare, and only happens in about one in every 3,000 cases [2]. Most perforations will heal without treatment, although an overnight hospital stay and antibiotics may be recommended.

Painful eye can be caused by the muscle relaxant (if given). This is very rare but if this happens you need to attend a hospital emergency department for an urgent eye assessment.

What if I need further investigations or treatment?

CTC scans are generally accurate at detecting cancer and large polyps. There is however a chance that a small cancer or polyp may not appear on the images. On rare occasions, the radiologist misses a polyp or cancer when it was visible in the images.

Following your CTC scan, you may be invited to attend for other investigations or treatment. This will be discussed with you by your consultant or GP.

Summary

To help you decide whether or not you wish to proceed with the CTC scan, the main benefits and disadvantages are outlined here:

- A CTC scan can detect cancer and polyps at an early stage, improving your chances of successful treatment and survival.
- The investigation is generally considered less invasive than colonoscopy.
- There are some common, minor side effects, and some very rare but more serious risks such as perforation of the bowel.
- A CTC scan delivers a dose of radiation, but this carries a very low risk.
- It is possible that, as with colonoscopy, CTC scans may miss a polyp or a cancer.

References

[1] Health Protection Agency X-Rays – How safe are they?
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947388410 May 2001

[2] Burling D, Halligan S, Slater A, Noakes MJ, Taylor SA. Potentially serious adverse events at CT colonography in symptomatic patients: national survey of the United Kingdom. *Radiology* 2006, 239(2):464-471.

Further Information

If you have any questions about a CTC Scan, please contact the X-ray Department on 01225 825989.

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Please contact the Patient Advice and Liaison Service (PALS) if you require this leaflet in a different format, or would like to feedback your experience of the hospital. Telephone 01225 825656 or Email ruh-tr.PatientAdviceandLiaisonService@nhs.net