

Introduction

CT Colonography is also called Virtual Colonoscopy.

Colorectal cancer is a leading cause of cancer related deaths in the Western World. Its incidence is increasing with a sedentary life style, obesity and diet high in fats a low in fruit and vegetables.

What is colonography and why is colorectal screening important?

- Most colon cancers arise from small benign adenomatous polyps which over a period of time (five to fifteen years) become larger and develop into cancerous lesions.
- The risk of developing cancer is directly related to the size of the polyp: 1% risk if the polyp is 5-10mm; 10% risk if the polyp is 10-20mm; more than 30% risk if the polyp is more than 20mm in size.
- Survival rate of colon cancer is related to pathological staging and is greater than 90% if cancer is limited to the bowel wall.
- CT colonography aims at detection of polyps before becoming cancerous lesions.

What is CT Colonography (CTC)?

- With advances in technology, CT is able to produce high quality cross-sectional images of the colon including 3D reconstructions. This imaging data is processed and examined on a dedicated work station. The computer reconstructions allow the radiologist is able to "fly" along the inside of the colon looking for lesions (so called virtual colonoscopy).
- With CTC it is possible for a trained radiologist to visualise the inner and outer folds of the colon for polyps or cancer.
- CTC also has the advantage of showing extracolonic structures in the abdomen.
- CTC is a short procedure (about 20 mins) and is done as an outpatient with no sedation required.
- Risk of perforation is negligible (0.04%).

Who should benefit from CT Colonography?

- Men and Women 50 years or older
- Family history of colon cancer
- Failed or incomplete colonoscopy
- Diverticular disease
- Patients unwilling or unable to undergo conventional colonoscopy, if frail or elderly, or those with a contraindication to having an anaesthetic.

Preparation

For accurate results, a clean dry colon is required and therefore bowel preparation is vital.

- Low residue diet 1-2 days prior to the examination.
- Bowel preparation.
- A small amount of oral fluid is allowed on the day of the examination.

Please see details and instructions below.

What to expect on the day of the examination?

After changing into an x-ray gown, you will be positioned on the CT table on your side. A small flexible tube will be inserted into the rectum and the colon gently distended with carbon dioxide using an automated insufflation device.

You will not feel pain but some minor discomfort and distension of your abdomen may be experienced. You will be scanned in two positions: one lying on your back and the second lying face down on the table. The examination is expected to take approximately 20 mins.

When can you expect the results?

The radiologist will review the images and a report with a CD with the images stored on it will be sent to your doctor who will then discuss the scan results with you.

Preparation instructions for CT Colonoscopy

(For patients under 65 years of age)

The patient should follow a low residue diet for two days before the examination e.g. noodles, soup, porridge or fish. No solids, vegetables, fruits, dairy products or meat should be taken. On the day before the examination the patient should drink plenty of water. A successful examination requires an empty colon. The following procedure should be followed.

Day before scan:

08h00: Mix one teaspoon of the supplied barium powder with 200ml of water and drink with a liquid breakfast.

12h00: Mix one teaspoon of the supplied barium powder with 200ml of water and drink with a liquid lunch.

18h00: Mix one teaspoon of the supplied barium powder with 200ml of water and drink with a liquid supper.

19h00: Dissolve one teaspoon Epsom Salts in a glass of water and drink the mixture.

20h00: Take three Dulcolax tablets with a glass of water.

22h00: Patient should have nothing to eat but may drink glucose, honey or plain water (limited amounts).

Morning of the scan:

06h00: Insert one Dulcolax suppository rectally and retain for at least 15 minutes before evacuation.

NB: Nothing to eat or drink on the morning of the scan.