



Cancer Screening Programmes

BOWEL CANCER SCREENING

The Colonoscopy Investigation

CANCER RESEARCH UK



What is the aim of this leaflet?

This leaflet gives you information about how a colonoscopy is carried out, and explains the benefits and risks of having the investigation. It aims to help you make an informed choice about having a colonoscopy.

What is a colonoscopy?

- A colonoscopy is an examination of the lining of the bowel wall.
- A thin flexible tube called a colonoscope is passed into your rectum (back passage) when you are under sedation, and guided around your large bowel.
- A colonoscopy is the most effective way to diagnose bowel cancer.
- Treatments for bowel cancer are more likely to be effective if bowel cancer is detected early.

Why have I been offered a colonoscopy?

Everyone who has an abnormal result after completing the screening test for bowel cancer will be invited to discuss having a colonoscopy.

Before you have the procedure, a specialist nurse will fully explain what a colonoscopy involves. You will be given the opportunity to ask any questions, and your fitness for the procedure will be assessed.

The main reason you have been offered a colonoscopy is to examine the lining of your bowel wall to see if cancer is present. Treatments for bowel cancer are more likely to be effective if bowel cancer is detected early. A colonoscopy can also detect bowel polyps. Polyps are not cancer, but can sometimes change into cancer over a number of years. Polyps can be removed (usually during the colonoscopy), reducing your risk of developing bowel cancer in the future.

What does an abnormal bowel cancer screening result mean?

About two in every 100 people will have an abnormal result after their screening test for bowel cancer. However, this does not necessarily mean that they have cancer. An abnormal screening result (traces of blood found in your screening test sample) can be due to reasons that are not related to cancer, such as:

- haemorrhoids ('piles') – swollen veins in or around your back passage; and
- anal fissures – tears in the lining of the rectum or near the back passage, sometimes caused by constipation.

An abnormal screening result may also be due to bleeding from either a bowel polyp or a cancer.

What is bowel cancer?

- About one in 20 people in the UK will develop bowel cancer during their lifetime.
- Both men and women are at risk of developing bowel cancer.
- It is the third most common cancer in the UK, and the second leading cause of cancer deaths. Over 16,000 people die from bowel cancer each year (Cancer Research UK, 2005. *Cancerstats*).

Bowel cancer is also known as colon, rectal or colorectal cancer. The lining of the bowel is made of cells that are constantly being renewed. Sometimes these cells grow too quickly, forming a clump of cells known as a bowel **polyp** (sometimes known as an adenoma). Polyps are not bowel cancers (they are usually benign), but they can change into a malignant cancer over a number of years. A malignant cancer is when cancer cells have the ability to spread beyond the original site and into other parts of the body.

What do I have to do before the colonoscopy investigation?

Before a colonoscopy, you will have to completely empty your bowel to allow the specialist to see the lining of your bowel clearly.

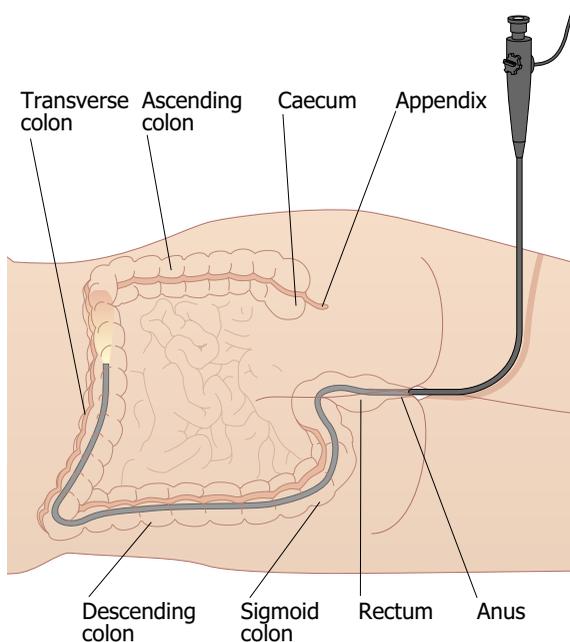
You will receive a list of dietary restrictions and a bowel preparation medicine (a strong laxative) before the colonoscopy. You should take the strong laxative the day before the colonoscopy and it will cause diarrhoea. After taking the laxative, it is wise to stay close to a toilet and avoid travelling or going to work.

It is important that you follow the instructions very carefully to fully empty your bowel.

Otherwise the specialist may not be able to clearly see your bowel lining during the colonoscopy and you will need to have the test again. You will also need to arrange for someone to take you home after your colonoscopy, as you will be given a sedative and may be drowsy.

What happens during the colonoscopy?

You will be given a sedative to help you relax and then asked to lie on your side. A thin flexible tube called a colonoscope is passed into your rectum (back passage) and guided around your large bowel. At the end of the colonoscope there is a small camera with a light attached which allows the specialist to see the inside of your bowel on a TV screen.



When the colonoscopy is carried out, some air is pumped into your bowel to allow the specialist to see the lining of your bowel wall clearly. This may give you a bloating or cramping feeling in your abdomen. The sedative you are given is likely to make you feel drowsy and you may not remember very much about the investigation. The colonoscopy should take between 30 and 45 minutes.

Sometimes a small tissue sample, called a biopsy, will be taken. Most polyps can also be removed painlessly, using a wire loop passed down the colonoscope tube. These tissue samples will be checked for any abnormal cells that might indicate cancer. Some people find having a colonoscopy uncomfortable, but most people do not report that it is painful.

When do I get my results and what do they mean?

Immediately after the colonoscopy, the specialist will tell you if they have removed any tissue samples or polyps. If tissue samples are removed during your colonoscopy, you should receive the results in three weeks. There are three types of results that you could receive.

- A **normal result** means that no polyps or bowel cancers were detected during the colonoscopy. Half of the people who have a colonoscopy (about five in 10) will have a normal result.

The specialist will tell you after your colonoscopy if you had a normal result. As there is a small chance that the colonoscopy may miss a cancer, a normal result does not guarantee that you do not have or never will develop cancer. You will be offered screening for bowel cancer again in two years time.

- A **polyp** (or more than one polyp) was found during the colonoscopy. In most cases, the specialist will remove the polyp or polyps (this procedure is called a polypectomy) and analyse them. About four in 10 people will have polyps. It may prevent cancer developing if they are removed.

If a polyp was removed, you will be told whether you are in a low-risk group, or an intermediate (medium) or high-risk group. People in the low-risk group will be offered bowel cancer screening again in two years.

People in the intermediate or high-risk group will be asked to have another colonoscopy in one or three years depending on the nature of the polyp or polyps.

- A **cancer** was detected during the colonoscopy. Only about one in 10 people will be found to have bowel cancer. If cancer has been detected, you will be referred for treatment.

If bowel cancer is detected at the earliest stage, there is a 90% chance of it being successfully treated.

However, not all bowel cancers detected by a colonoscopy can be successfully treated.

How reliable is the colonoscopy investigation?

Although a colonoscopy is not a perfect procedure, it is over 90% accurate for detecting bowel cancer (*Screening for colorectal cancer in adults of average risk*. Annals of Internal Medicine, 2002, 137(2), 132-141). There is a small chance that the specialist will not see the cancer or polyp (about five in every 100 people having colonoscopy). This means that either the cancer could not be seen because the bowel was not completely empty or, on rare occasions, the specialist missed the polyp or cancer. There is also a small chance that the specialist was not able to pass the colonoscope along the whole length of the bowel (about five in every 100 people). This can happen because of a blockage or difficulty in negotiating the colonoscope around the bowel.

Are there side effects or complications from having a colonoscopy?

For most people a colonoscopy is a straightforward procedure, but in rare cases there may be complications. These can include the following:

- Not being able to see all of the bowel. This can sometimes happen if your bowel is not completely empty or the colonoscope could not reach the end of your large bowel (you may be asked to have another colonoscopy or a barium enema – see page 13).
- Heavy bleeding that needs further investigation or medical advice. Polyps or tissue samples that are removed during a colonoscopy may cause heavy bleeding. It is estimated that this could happen in around one in every 150 colonoscopies.
- A perforated bowel. The colonoscope can cause a hole (perforation) in the wall of your bowel. The chances of this happening are about one in 1,500. If this happens, you may need an operation.
- Breathing or heart problems. You may have a reaction to the sedative that may make you have temporary breathing or heart problems. Serious problems are rare as you are carefully monitored during the investigation.

Some of these complications may need further treatment, or even an operation.

In extremely rare cases, the procedure can lead to death. Current evidence suggests that this may happen in around one out of every 10,000 procedures.

What happens after the investigation?

The specialist who performed the colonoscopy will explain the outcome of your investigation to you. You will be told after your colonoscopy if any tissue samples were removed. You will receive the results of any biopsy within three weeks of the investigation. If tissue samples were removed, you may notice traces of blood coming from your back passage. Slight bleeding like this is not uncommon and may last for a few days. You should report any symptoms of prolonged or heavy bleeding (such as cramping, stomach pains and heavy bleeding from your back passage) to the colonoscopy unit or your doctor (GP).

Because it takes a while for the sedative to wear off, you will need someone to take you home from the hospital. You should also have someone with you for 12 hours afterwards. It is a good idea to have someone with you when the specialist explains the results of the colonoscopy, as you will still be feeling the effects of the sedative.

You should make sure that you do not drive, use machinery or drink alcohol for at least 24 hours. The sedative takes some time to get through your system and may have some effects on your reactions and judgement. You should also avoid making important decisions until 24 hours after your colonoscopy.

What if I need treatment?

Most polyps found during a colonoscopy can be painlessly removed during the investigation using a wire loop passed down the colonoscope. This is called a polypectomy.

If the colonoscopy shows that you need more treatment, you will be able to discuss this with a team of specialists. Usually this involves more tests to work out the exact place and type of cancer, so that you and the team of specialists can decide on the best course of action and treatment. The three main treatments for bowel cancer are surgery, chemotherapy and radiotherapy. Depending on how advanced the cancer is when it is detected, two or more types of treatment may be used at the same time, or one following the other. Treatment will always be tailored to your needs, after discussions with the team involved with your care.

Surgery

The main treatment for bowel cancer is surgery. About eight in 10 people will be considered suitable for surgery that is intended to remove the cancer completely. After surgery, over 50% of people will live for more than five years.

Chemotherapy

Chemotherapy involves using anti-cancer (cytotoxic) drugs to kill cancer cells or make them less active.

Chemotherapy is mainly given after surgery to reduce the risk of the cancer coming back. Sometimes it is given before surgery to reduce the size of the cancer or at the same time as radiotherapy.

Radiotherapy

The aim of radiotherapy is to kill the cancer cells without causing too much harm to normal cells. Radiotherapy is usually used to treat rectal cancer and can be used before or after surgery.

If bowel cancer is not treated, the cancer can continue to grow which can block the bowel, spread to other organs or both.

Will I need to have check-ups?

If a polyp was removed, you will be told whether you are in a low-risk or intermediate or high-risk group for future polyps developing into cancer. People who are told that they are in the low-risk group will be offered bowel cancer screening again in two years. People in the intermediate or high-risk groups will be moved to the surveillance part of the screening programme, and offered a colonoscopy in one or three years, depending on the nature of the polyp or polyps. A follow-up colonoscopy is carried out to check the lining of your bowel to see if any polyps have developed since your last investigation.

Other investigations

Sometimes, due to other medical conditions, it is not possible for you to have a colonoscopy. You may be offered a different investigation, such as a barium enema, instead.

A barium enema is where x-rays are taken of your large bowel. A small tube is passed into your back passage through which barium (a white chalky liquid) flows into your bowel. This liquid coats the inside of your bowel and shows its outline on an x-ray. The barium enema takes about 30 minutes.

What happens to my sample once it has been tested?

If tissue samples were taken during the colonoscopy, the result is recorded onto a database and the tissue sample is destroyed. We regularly review all screening records as part of our aim to offer you a quality service and to help increase the expertise of specialist staff. This means that staff who work elsewhere in the health service will need to see your records.

For more information on how we keep records, you can contact NHS Direct on 0845 4647.

Summary

To help you decide whether or not you want to have a colonoscopy, the main benefits and disadvantages of the investigation are outlined below.

- A colonoscopy can detect a cancer at an early stage, improving your chances of successful treatment.
- Removing polyps, usually during a colonoscopy, can reduce your chances of developing bowel cancer in the future.
- You may find that the bowel preparation you take the day before colonoscopy is unpleasant.
- The effects of the sedative can make it difficult for you to do things the day after the investigation.
- There are some risks associated with having a colonoscopy.
- There is the possibility that colonoscopy can miss a bowel cancer.

This leaflet was developed by Cancer Research UK, in association with the NHS Bowel Cancer Screening Programme and with advice from the English Colorectal Screening Pilot.

Questions you may want to ask

At your first appointment, the specialist nurse will fully explain the colonoscopy investigation to you.

You can use the space below to write down any questions you may want to ask.

More information and support

If you have any questions, or would like more information about screening for bowel cancer or colonoscopy, you can:

- contact your programme hub on Freephone 0800 707 60 60;
- talk to your GP;
- visit the NHS Cancer Screening Programmes website at www.cancerscreening.nhs.uk;
- visit the NHS Direct website at www.nhsdirect.nhs.uk;
- visit the Cancerbackup website at www.cancerbackup.org.uk, or call 0808 8001234;
- visit the CancerHelp website at www.cancerhelp.org.uk, or call 0800 226237;
- visit the Bowel Cancer UK website at www.bowelcanceruk.org.uk, or call 08708 506050;
- visit the Beating Bowel Cancer website at www.beatingbowelcancer.org, or call 0208 8925256.

Published by the Department of Health in association with NHS Cancer Screening Programmes, with advice and support from the Cancer Research UK Primary Care Education Group.



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278490 2p 30k Jan 07 (ANC) 278803
Produced by COI for the Department of Health
First Edition May 2006

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