



**James Paget  
University Hospitals**  
NHS Foundation Trust

# Colonoscopy



The procedure  
explained

If you are unable to keep your appointment please notify the Endoscopy Unit booking office as soon as possible

## Patient Information

Contact telephone numbers -  
Monday to Friday 08.00 – 18.00 hours

For appointments: please contact the Endoscopy Unit booking office on **01493 452690**

For advice: please contact the Endoscopy Unit on **01493 452370**

## Introduction

You have been advised by your GP or hospital doctor to have an investigation known as a colonoscopy.

If you are unable to keep your appointment, please notify the department as soon as possible. This will enable the staff to give your appointment to someone else and they will be able to arrange another date and time for you.

This booklet will give you information about the investigation and its risks and benefits to help you make an informed decision about having the procedure. A consent form is also enclosed

### **This procedure requires your formal consent.**

The consent form is a legal document, therefore please read it carefully. Once you have read and understood all the information, including the possibility of complications, and you agree to undergo the investigation, **please sign and date the consent form**. You will notice that the form is in duplicate, allowing you to keep a copy for your records.

If however there is anything you do not understand or wish to discuss further do not sign the form, but bring it with you and you can sign it after you have spoken to a healthcare professional.

## What is a colonoscopy?

This is an examination of your large bowel (colon). It will be performed by, or under the supervision of, a doctor or nurse endoscopist and we will make the investigation as comfortable as possible for you. When you are having a colonoscopy procedure you will usually be given sedation and pain relief.

This test is a very accurate way of looking at the lining of your large bowel (colon) to establish whether there is any disease present. This test also allows us to take tissue samples if necessary.

The instrument used in this investigation is called a colonoscope, and is flexible. Within each scope is an illumination channel

which enables light to be directed onto the lining of your bowel, and another which relays pictures back onto a television screen. This enables the endoscopist to have a clear view and to check whether or not disease or inflammation is present.

During the investigation the endoscopist may need to take some samples from the lining of your colon for analysis: this is painless.

Samples taken will be sent to the laboratory for analysis. After analysis any remaining specimen will be retained for six weeks before being destroyed.

Photographs may be taken for your medical records.

## Why do I need to have a colonoscopy?

You may have been advised to undergo this investigation of your large bowel to try and find the cause for your symptoms, help with treatment and if necessary, to decide on further investigation. For example if you have:

- pain in the lower abdomen (tummy)
- persistent diarrhoea
- changes to your bowel habits
- a strong family history of bowel cancer
- been placed on a bowel cancer screening pathway
- an existing condition that needs reviewing such as Crohn's disease or colitis. Or to assess the clinical importance of an abnormality seen on an x-ray or CT scan.

## What are the risks?

### A. The endoscopic examination:

Serious complications are very rare.

The most serious risk is the endoscope damaging your colon during the test. This can cause bleeding or a perforation (tear) of the lining of the bowel. The risk of perforation of the lining of the bowel is approximately 1 in 1000 examinations. An operation is nearly always required to repair the hole. The risk

of perforation is higher with polyp removal.

Bleeding may occur at the site of a biopsy or removal of a polyp (a small growth on the lining of the bowel). The risk is approximately 1 for every 100 – 200 examinations where this is performed. Such bleeding may either simply stop on its own or if it does not, be controlled by cauterization or injection treatment.

### B. Sedation:

This can occasionally cause problems with breathing, heart rate and blood pressure. If any of these problems do occur, they are normally short lived. Careful monitoring by an endoscopy nurse ensures that any potential problems can be identified and treated rapidly.

Older patients and those who have significant health problems, for example people with significant breathing difficulties due to a bad chest, may be assessed by a doctor before being treated.

Please note that occasionally the test may need to be abandoned or may be incomplete. This can happen if you find the procedure too uncomfortable or if the bowel preparation did not empty your bowel completely. In this case, the test may need to be repeated or we may suggest an alternative procedure.

## What are the alternatives?

### Barium enema

An alternative investigation to colonoscopy is a barium enema examination. This test can examine the large intestine using X-rays and barium sulphate. The barium sulphate coats the lining of your bowel, making it easier to see on X-ray. It has the disadvantage that samples of the bowel cannot be taken if an abnormality is found. If this is the case a subsequent endoscopic examination may be required.

### CT (computerised tomography) colonography

This is a type of X-ray machine that can give more details than normal X-rays. This test uses low dose radiation CT scanning

to obtain an interior view of the colon (the large intestine). However, it cannot be used to take biopsies or remove polyps, so you may still need a colonoscopy.

## Preparation for the investigation

### How can I prepare for a colonoscopy?

To make sure the endoscopist has a clear view of your colon, it must be completely empty. Therefore, you will be asked to follow a special diet for a few days before the procedure. You will also have to take a laxative (substance that speeds bowel movement) before the test. Full details will be given to you when you receive your bowel preparation.

**You must follow the dietary instructions and not the instructions in the packet of bowel preparation.**

If you have any queries please do not hesitate to contact the endoscopy unit and someone will assist you.

If you have ever been told that you have CJD or vCJD, or were at risk of developing it, please ring the department as soon as possible.

### What about my medication?

Please bring a list of your medications with you to your appointment.

If you are taking sedatives or chronic pain medication please let the doctor or nurse know in good time before the date of your procedure.

If you are taking **iron tablets** you must stop these **seven days** prior to your appointment.

If you are taking **stool bulking agents** (e.g. Fybogel®, Regulan®, Proctofibe®), loperamide (Imodium®), Lomotil® or codeine phosphate you must stop these **four days prior** to your appointment.

## Diabetics

If you are diabetic please see the guidelines at the end of this booklet (page 12).

## Anticoagulants

If you are taking anticoagulants e.g. warfarin or acenocoumarol, the anticoagulation nurse will contact you at least **seven days prior** to your appointment about stopping, or dosing, and arranging a blood test. On arrival to the endoscopy unit the nurse will test your blood to check your INR and advise on dosing after the procedure.

If you are taking direct oral anticoagulants e.g. dabigatran, rivaroxaban, apixaban and edoxaban stop these **two days (at least 48 hours)** prior to your appointment.

**If you have any concerns please contact the Endoscopy Unit for advice.**

## Anti-platelet agents

There is no restriction in taking aspirin or dipyridamole which can be taken as usual. If you are taking clopidogrel, ticagrelor or prasugrel please stop these **seven days prior** to your appointment. The referring doctor will tell you if you are required to take aspirin for that time period. However, if you have had a cardiac stent inserted in the last 12 months your consultant will need to discuss any changes to your medication with a cardiologist. **If your consultant has not discussed this with you please ring the relevant secretary.**

## Medical devices

If you have a pacemaker or implantable cardioverter defibrillator (ICD) that has not been checked within the last six months please telephone the department as soon as possible. If the device has been checked then all you need to do is inform the nurse on admission of the device and the date last checked.

## Other medication

You should continue to take all of your other medications as normal, unless you have been told otherwise by your referring doctor.

## How long will I be in the endoscopy department?

This largely depends on how quickly you recover from the sedation and how busy the department is.

You should expect to be in the department for about three hours.

Emergencies can take priority over outpatient lists.

## What happens when I arrive?

You will be met by an endoscopy nurse who will ask you a few questions, one of which concerns your arrangements for getting home.

They will ensure you understand the procedure and discuss any outstanding concerns or questions you may have.

You will have a brief medical assessment regarding your medical condition and any past surgery or illness you have had to confirm that you are sufficiently fit to undergo the investigation.

Your blood pressure, heart rate and oxygen levels will be recorded. If you are diabetic your blood glucose level may be checked.

If you have not already done so, and you are happy to proceed, you will be asked to sign your consent form at this point.

You will then be asked to change into an examination gown.

**You are advised to bring a dressing gown with you, however, an over gown can be provided if necessary.**

The nurse will insert a cannula into a vein, usually on the back of your hand, through which medication can be administered during the procedure.

## Sedation

As a colonoscopy can be painful the test is normally performed with sedation or an injection of painkillers, but you can choose not to have sedation if you wish.

The sedation and a painkiller will be administered into a vein in your hand or arm which will make you slightly drowsy and relaxed but not unconscious. You will be in a state called conscious sedation: this means that, although drowsy, you will be able to hear what is said to you and therefore will be able to follow simple instructions during the investigation. It is possible that the sedation may result in you being unable to remember anything about the investigation.

Whilst sedated we will monitor your breathing and heart rate so changes will be noted and dealt with accordingly. For this reason you will be connected by a finger probe to a pulse oximeter which measures your oxygen levels and heart rate during the procedure. Your blood pressure will also be recorded.

**Please note that if you decide to have sedation you are not permitted to drive or use public transport alone following the procedure.**

**You must arrange for a family member or friend to collect you.**

The nurse will need to be given their telephone number so that they can be contacted when you are ready for discharge.

If you do not have an escort or have not arranged for someone to collect you, then your procedure will be cancelled. If you are unable to arrange someone to collect you, please contact us to discuss alternative arrangements.

**If you have sedation you should not drive or ride a bicycle, take alcohol or sleeping tablets, operate machinery or do anything requiring skill or judgement, go to work, make any important decisions or sign any legally binding documents for 24 hours following the procedure.**

**You must have a responsible adult to stay with you overnight.**

**Entonox® (gas and air)**

Entonox® is also available in the department. It can be used for pain relief to supplement the sedation given or as an alternative if you are unable to or do not want to have sedation.



## The colonoscopy examination

You will be escorted into the procedure room where the endoscopist and the nurses will introduce themselves and you will have the opportunity to ask any final questions.

The test itself takes about 40 minutes and an endoscopy nurse will be looking after you throughout the procedure.

The nurse looking after you will ask you to lie on your left side and will then place the oxygen monitoring probe on your finger. Your blood pressure will also be recorded.

The sedative drugs will be administered into a cannula in your vein and you will quickly become drowsy and relaxed.

The colonoscopy involves manoeuvring the colonoscope around the entire length of your large bowel. There are some bends that naturally occur in the bowel and negotiating these may be uncomfortable for a short period of time but the sedation and pain relief will minimise any discomfort.

Carbon dioxide is gently passed into the bowel during the investigation to make it easier to see the lining of the bowel and to facilitate the passage of the colonoscope. This may make you feel slightly bloated and you may feel the urge to go to the toilet, but you will not be able to do this as your bowel will be empty. Many people pass some wind during the test. This is perfectly normal and is nothing to be embarrassed about.

Occasionally the nurse will press gently on your tummy or your position may be altered to aid the passage of the scope.

During the procedure samples may be taken from the lining of your bowel for analysis, you will not feel this. These will be retained. Any photographs will be recorded in your medical notes. Buscopan® may be administered during a colonoscopy to relax the bowel and improve polyp detection.

## What is a polyp?

A polyp is a small growth on the lining of the bowel. Some polyps are attached to the intestinal wall by a stalk, and look like a mushroom, whereas others are flat without a stalk. Polyps when found are generally removed or sampled by the endoscopist as they may grow and later cause problems. Flat polyps are generally a little more difficult to remove.

## Polypectomy

A polyp may be removed during the procedure; you will not feel this. This may be by using an instrument known as diathermy, which uses an electrical current to burn away the polyps.

For large polyps a wire loop is placed around the polyp, a high frequency current is then applied and the polyp is removed.

Flat polyps can be removed by a procedure called EMR (Endoscopic Mucosal Resection). This involves injecting the lining of the bowel that surrounds the flat polyp. This raises the area and allows the wire loop snare to capture the polyp.

## After the procedure

You will be allowed to rest for as long as is necessary. Your blood pressure and heart rate will be recorded and if you are diabetic, your blood glucose will be monitored. Should you have any underlying difficulties or if your oxygen levels were low during the procedure, we will continue to monitor your breathing and can administer additional oxygen. Once you have recovered from the initial effects of sedation (which normally takes 30 - 60 minutes) you will be offered a drink and biscuits.

Before you leave the department, the nurse or doctor will explain the findings and any medication or further investigations required. They will also inform you if you require further appointments.

Since sedation can make you forgetful you will need to have a member of your family or a friend with you when you are given this information.

If you have had sedation you may feel fully alert following the investigation, however the drug remains in your blood system for about 24 hours and you can intermittently feel drowsy with lapses of memory. If you live alone you should arrange for a responsible adult to stay with you overnight.

If the person collecting you leaves the department, the nursing staff will telephone them when you are ready for discharge.

You should rest at home following your procedure, you can eat and drink normally and should be able to carry out your normal activities 24 hours after the test.

It is not unusual to experience some diarrhoea for a couple of days post procedure until the bowel returns to its normal function. Abdominal pain due to carbon dioxide introduced into your colon during your procedure can be alleviated by hot drinks, moving around and taking peppermints. You are also encouraged to pass wind which will help to ease the discomfort. This discomfort may last for several hours.

## General points to remember

It is our aim for you to be seen and investigated as soon as possible after your arrival. However, the department is very busy and your investigation may be delayed. If emergencies occur, these patients will obviously be given priority over less urgent cases.

If you have any problems with persistent or worsening abdominal pain after your procedure, please contact your GP immediately informing them that you have had an Endoscopy.

If you are unable to contact or speak to your doctor, you can phone or attend the hospitals A&E department. You can contact them on **01493 452559**.

You may be given Buscopan® during this procedure – if on discharge you develop symptoms such as pain in the eye, blurred vision, haloes round lights, nausea or vomiting please report to A&E in case the eye pressure has gone up and needs treatment.

## Privacy and dignity

Please note we have single sex changing, recovery and toilet facilities available in the unit.

Please be advised that relatives are not permitted into the procedure room with the patient or into the recovery areas. This is to protect other patients' privacy, dignity and enable staff to concentrate on looking after the patients.

Visit our website:

<http://www.jpaget.nhs.uk/departments-services/departments-services-a-z/endoscopy-unit/#>

## Guidelines for people with diabetes undergoing colonoscopy or combined upper GI endoscopy and colonoscopy

As a person with diabetes, you need to adjust your treatment according to the timing of the appointment. As a result your blood sugar may be a little higher than usual. This is only temporary to maintain your blood sugars through the procedure and you will be back to your usual level of control within 24 – 48 hours.

### Treatment by diet alone

If you control your diabetes by diet alone, you simply need to follow the instructions given within this booklet to prepare for your colonoscopy.

### Treatment by tablets, non-insulin injections

You should have a morning appointment. If you have not, please ring the Endoscopy Unit booking office on **01493 452690** to reschedule the appointment time.

### Treatment with insulin

You should have an early morning appointment. If you have not, ring the Endoscopy Unit booking office on **01493 452690** to reschedule the appointment time.

## **Preparation on the first day (i.e. the low fibre diet two days before)**

Continue to take your normal tablets and / or insulin and check your blood sugar levels.

## **Adjusting diabetic medication the day before the procedure to prevent hypoglycaemia (low blood sugar)**

Have glucose tablets or sugary drinks (see list below) available in case of hypoglycaemia.

Check your blood glucose 2 – 4 hourly, or if you feel hypoglycaemic.

If the level is less than 7 mmols/l during the day or less than 10 mmols/l before bed, take a carbohydrate from the drinks listed below or take three glucose tablets.

Check your blood glucose after 10 – 15 minutes and repeat the treatment if it has not come up to the correct level.

If you do not usually test your blood glucose levels please be aware of the increased risk of hypoglycaemia and treat any symptoms as above.

## **Alternatives to glucose tablets**

Lucozade Sport® 200mls (13 tablespoons)

Grape juice 100mls (6 tablespoons)

Sparkling apple juice 200mls (13 tablespoons)

Coke® or Pepsi® (not diet) 200mls (13 tablespoons)

Ribena® 30mls (2 tablespoons) diluted

Squash / barley water 70mls (4 tablespoons) diluted

Sugar (4 teaspoons dissolved in 200mls of water)

## **If you are on tablets or non-insulin injectable treatment (Exenatide®, Lixisenatide®, Liraglutide®, Dulaglutide®) for diabetes:**

### **Day before colonoscopy – clear fluids only**

Aim to replace your usual carbohydrate intake from the list of permitted clear fluids. You can have sugary fluids, fruit juice or fruit jelly to replace your usual carbohydrates.

If you take tablets or non-insulin injectable treatment in the morning, take it as usual.

If you take tablets or non-insulin injectable treatment at lunchtime or in the evening, **omit** the dose(s).

### **The day of the colonoscopy**

Do not take your morning dose of tablets or non-insulin injectable treatment; bring them with you to have after the procedure.

Report to the nursing staff if you have needed glucose before arriving, and inform them immediately if you feel hypoglycaemic at any time during your visit.

Bring your tablets or non-insulin injectable treatment with you and you will be able to take them as soon as the nursing staff inform you that you can eat and drink safely.

### **Patients on insulin**

#### **Day before the colonoscopy – clear fluids only**

You should aim to replace your usual carbohydrate intake from the list of permitted clear fluids. You can have sugary fluids, fruit juice or fruit jelly to replace your usual carbohydrates.

If you use basal insulin (Insulatard® / Humulin I® / Insuman Basal® / Levemir® / Lantus® / Abasaglar® / Tresiba®) take half the usual dose the evening before the procedure (if you take an evening dose).

If you use an insulin pump, reduce the basal rate to 50% usual (-50% temporary basal rate) from 10pm the night before the procedure until you are able to eat and drink again. Use the bolus function as usual taking into account the carbohydrate you are eating.

If you use quick acting insulin (Soluble® / Actrapid® / Humulin S® / Insuman Rapid® / Novorapid® / Humalog® / Apidra® / Fiasp®) and carbohydrate count, use the quick acting insulin/ your usual insulin: carbohydrate ratio or Carbohydrate Portion ratio when you eat / drink from the permitted carbohydrate list.

If you use mixed insulin (Humulin M3® / Insuman Comb 15® / Insuman Comb 25® / Insuman Comb 50® / Novomix 30® / Humalog Mix 25® / Humalog Mix 50® / Hypurin 30/70 Mix®) the evening before the procedure, reduce the dose by one-half (e.g. if you usually take 12 units then take six units).

Check your blood glucose 2 – 4 hourly, or if you feel hypoglycaemic.

If the level is less than 7 mmols/l during the day or less than 10 mmols /l before bed, take a 20g of liquid carbohydrate from the drinks listed below or take three glucose tablets.

Check your blood glucose after 10 – 15 minutes and repeat the treatment if it has not come up to the correct level.

### **Day of colonoscopy**

If you use basal insulin (Isophane® / Insulatard® / Humulin I® / Insuman Basal® / Levemir® / Lantus® / Abasaglar® / Tresiba®) take half the usual dose on the morning of the procedure.

If you use an insulin pump, continue the -50% temporary basal rate until after the procedure.

If you use quick acting insulin (Soluble® / Actrapid® / Humulin S® / Insuman Rapid® / Novorapid® / Humalog® / Apidra® / Fiasp®), omit the morning dose but bring the insulin to take once you are able to eat and drink after the procedure.

If you use mixed insulin (Humulin M3® / Insuman Comb 15® / Insuman Comb 25® / Insuman Comb 50® / NovoMix 30® / Humalog Mix 25® / Humalog Mix 50® / Hypurin 30/70 Mix®) do not take your morning dose of insulin but bring the insulin to take once you are able to eat and drink after the procedure.

**Report to the nursing staff if you have needed glucose before arriving, and inform them immediately if you feel hypoglycaemic at any time during your visit.**

You can take your morning dose of insulin as soon as nursing staff tell you that you can safely eat and drink.

**If you have any concerns about adjusting your medication, ring the Diabetes Nursing Team on 01493 453373 (answer phone).**

This booklet was produced by:

Dr Matt Williams - Consultant Gastroenterologist.

The Endoscopy Team and The Endoscopy Patient Participation Group at the James Paget University Hospitals NHS Foundation Trust

Diabetic patient information ratified by Dr Joanne Randall, Consultant Endocrinologist.

This booklet was adapted from original documents produced by the Winchester and Eastleigh Healthcare NHS Trust, Endoscopy Department and Guy's and St Thomas' NHS Foundation Trust.

**Your Feedback** We want your visit to be as comfortable as possible - talk to the person in charge if you have any concerns. If the ward/department staff are unable to resolve it, then ask for our Patient Advice and Liaison (PALS) information. Please be assured that raising a concern will not impact on your care.

## OUR VALUES

# Proud of the Paget

### **Collaboration**

We work positively with others to achieve shared aims

### **Accountability**

We act with professionalism and integrity, delivering what we commit to, embedding learning when things do not go to plan

### **Respect**

We are anti-discriminatory, treating people fairly and creating a sense of belonging and pride

### **Empowerment**

We speak out when things don't feel right, we are innovative and make changes to support continuous improvement

### **Support**

We are compassionate, listen attentively and are kind to ourselves and each other

**Before leaving please complete a Friends and Family Test feedback card.**

Help us transform NHS services and to support patient choice.



The hospital can arrange for an interpreter or person to sign to assist you in communicating effectively with staff during your stay. Please let us know.

**For a large print version of this leaflet, contact PALS 01493 453240**

Author: Endoscopy Unit

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