James Paget
University Hospitals
NHS Foundation Trust

# Percutaneous Endoscopic Colostomy


## 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 hospital doctor to have an investigation known as a percutaneous endoscopic colostomy.

This booklet will give you information about the procedure and its risks and benefits to help you make an informed decision about having the procedure.

**This procedure requires your formal consent.**

Once you have read and understood all the information including the possibility of complications and you agree to undergo the procedure, you will be asked to sign and date a consent form. If there is anything you do not understand or wish to discuss further do not sign the form until you have spoken to a healthcare professional.

## What is a percutaneous endoscopic colostomy?

Percutaneous Endoscopic Colostomy (PEC) is an operation to place a plastic tube from the inside of the large bowel (colon) out through the skin of the abdomen. Although PEC is a new technique it is in fact a modification of the well-established procedure for the placement of enteral feeding tubes. Its role, safety and effectiveness are still being evaluated and it should therefore be regarded as unproven.

It will be performed by, or under the supervision of, a specialist doctor and we will make the investigation as comfortable as possible for you. When you are having a PEC procedure you will be given sedation and pain relief. A local anaesthetic will also be used where the tube comes through the abdominal wall.

The instrument used in this operation 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.

## Why do I need to have a PEC tube?

PEC offers an alternative treatment for patients who have tried standard treatment options without success. PEC may benefit people with Recurrent Sigmoid Volvulus (RSV). RSV is a condition in which part of the large bowel, the sigmoid colon, twists around on itself causing pain and obstruction. After repeated episodes some people may be advised to have a PEC tube inserted into the sigmoid colon to anchor it and prevent further twisting. Sometimes more than one tube is needed to prevent further twisting. PEC tubes are normally expected to remain in situ indefinitely.

## What are the possible complications?

The overall risk of complication caused by the procedure is 1 in 5; these are detailed below:

**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.

**Perforation:** 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. An operation is nearly always required to repair the hole.

**Peritonitis:** Perforation can lead to peritonitis which is **an infection of the inner lining of the tummy.** The lining of the tummy (peritoneum) covers internal organs like the kidneys, liver and bowel. If the lining becomes infected the internal organs it covers can also be damaged. **Left untreated it can become life-threatening.**

**Infection:** Some minor infection and discharge around the tube is quite common and needs no treatment (risk: 1 in 8). Antibiotics are given for five days following the PEC insertion to reduce the risk of infection. Serious infection is rare and may cause severe abdominal pain or spreading, painful redness in the skin around the tube. If this occurs you should consult your specialist or doctor.

Bleeding is uncommon and often stops spontaneously.

**Dislodgement:** The PEC tube is firmly secured at the skin level with a connection that is difficult to dislodge. You should be careful not to pull on the tube by mistake as this can cause a hole in the colon. If this happens you may need an open abdominal operation to repair the hole. It is very important that the tube is firmly secured with a dressing.

**Tissue overgrowth (granulation)** around the exit site. This is where moist tissue, dark pink or red in colour, develops around the tube as the body tries to heal the wound. A small amount is normal. However, a lot of granulation tissue can cause pain and make it difficult to care for the PEC tube.

**Death:** PEC should be considered as a high risk procedure. Death does sometimes happen with a PEC (risk: 1 in 20). The risk is less the fitter you are. The risk will increase if any other complications happen following the operation.

You should discuss these possible complications with your doctor if there is anything you do not understand.

# Preparation for the procedure

## How can I prepare for the procedure?

You will be prescribed Octenisan® body wash to use daily, for three days before the procedure.

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.**

**You may eat and drink up to two hours prior to the procedure.**

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 Creutzfeldt-Jakob disease or variant Creutzfeldt-Jakob disease or were at risk of developing it, please ring the department as soon as possible.

## What about my medication?

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 back of the booklet.

## 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. You will also need a blood test on the day of the procedure 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 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 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 your consultant's 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 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.

### Sedation

As the procedure can be painful it is normally performed with sedation and an injection of painkillers. 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.

The sedation and a painkiller will be administered into a vein in your hand or arm which will make you lightly 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.

### Entonox® (gas and air)

Entonox is also available in the department. It can be used for pain relief to supplement the sedation given.

## The procedure

PEC is done using an intravenous injection of sedative and pain relief to make you drowsy. A local anaesthetic will be injected into the area on your abdomen where the tube comes through the abdominal wall. This stings for a moment but will make the area numb, allowing the tube to be placed with much less discomfort for you. The doctor will press on your abdomen to help make sure the tube is placed in the correct position.

A colonoscope is inserted through the anus up into the left side of the colon. A hollow needle is passed through the skin into the colon. A thin wire is passed through the needle into the colon where it is grasped by the colonoscope and drawn out through the anus. It is then attached to the PEC tube which is

pulled gently up the colon and out through the skin where it is held in place by a plastic bumper that helps to prevent the tube from coming out.

## After the procedure

After the procedure you will be transferred to the recovery area and then to the ward. If you were given a sedative, you will normally recover in about an hour. However, this depends on how much sedation you were given. You should rest following your procedure.

You will not be able to eat or drink until four hours after the procedure; however sips of water for comfort will be offered. After this time you can eat and drink and walk around and should be able to carry out your normal activities 24 hours after the test.

Abdominal pain due to air 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. Some pain may be felt for a few days where the tube comes through the skin. Paracetamol (two tablets every four hours, up to eight tablets per day) is a suitable pain killer.

The tube may be connected to a bag for 24 hours to decompress the colon after which it may be plugged.

You can expect to stay in hospital for 24 hours after the procedure.

You will be prescribed antibiotics for five days after the procedure.

You will also need to continue to use the Octenisan® body wash daily for five days after the procedure.

## Care of the tube

A light gauze dressing should be placed around the tube after the procedure to absorb any blood from the incision; this should

be removed within 24 hours.

The area should be cleaned with soap and water daily, with gentle but thorough drying.

The PEC tubes are simply left in place to stop the bowel twisting and you do not have to do anything with them. Rotation or pulling on the tube can cause serious complications.

The PEC tube must be covered and kept out of the way to avoid dislodgement.

## 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 them.

## 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 hospital's A&E department. You can contact them on **01493 452559**

Visit our website:
http://www.jpaget.nhs.uk/departments-services/departments-services-a-z/endoscopy-unit/#

## Guidelines for people with diabetes undergoing percutaneous endoscopic colostomy

As a person with diabetes, you need to adjust you 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 the procedure – 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 procedure

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 procedure – 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 the procedure

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.

**Please 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).**

# Notes

This booklet was produced by:

Dr Rawya Badreldin - Consultant Gastroenterologist and the Endoscopy Team at the James Paget University Hospitals NHS Foundation Trust.

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

**Feedback**

We want your visit to be as comfortable as possible. Please talk to the person in charge if you have any concerns. If the ward/department staff are unable to resolve your concern, please ask for our Patient Advice and Liaison (PALS) information. Please be assured that raising a concern will not impact on your care. **Before you leave the hospital you will be asked to complete a Friends and Family Test feedback card.** Providing your feedback is vital in helping to transform NHS services and to support patient choice.

**Trust Values**

Courtesy and respect
- A welcoming and positive attitude
- Polite, friendly and interested in people
- Value and respect people as individuals

So people feel **welcome**

Attentively kind and helpful
- Look out for dignity, privacy & humanity
- Attentive, responsive & take time to help
- Visible presence of staff to provide care

So people feel **cared for**

Responsive communication
- Listen to people & answer their questions
- Keep people clearly informed
- Involve people

So people feel **in control**

Effective and professional
- Safe, knowledgeable and reassuring
- Effective care / services from joined up teams
- Organised and timely, looking to improve

So people feel **safe**

IN TRAN communication for all

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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