

# Endoscopic retrograde cholangio-pancreatography (ERCP)

## What is an ERCP?

An ERCP is an X-ray examination of the pancreas and bile ducts. A sideviewing gastroscope, which is a long flexible tube, will be used for the procedure. This will be passed into your stomach and into the upper part of your small intestine (the duodenum.) The procedure will be performed with sedation. If a blockage is found it may be possible to this procedure.

## Before the procedure

You will be admitted to the Endoscopy/DDU ward before the procedure and you will usually stay in hospital for the day. The details of the ward will be on your appointment letter. Once you have been admitted, you will have blood tests taken and you will be seen by a doctor who will explain the choices of treatment and procedure to you and answer any questions that you may have.

## What should I know before deciding

The endoscopist will ensure you know enough information about the procedure to enable you to decide about your treatment. They will write this on the consent form as well as discussing choices of treatments with you.

Before going to xray, the endoscopist carrying out the procedure will come and speak to you. They will explain the procedure again and the risks and benefits. If you are happy to go ahead with the procedure then you will be asked to sign a consent form.



## Consent form

Before you can have the procedure, the endoscopist will need to gain your consent. This will be required in writing. Before going to the procedure room, the endoscopist carrying out the procedure will come and speak to you. They will explain the procedure again and the risks and benefits.

If you are happy to go ahead with the procedure you will be asked to sign a consent form. If you later change your mind, you are entitled to withdraw consent, even after signing. A copy of the consent form will be offered to you. It is your decision whether or not to consent to the procedure. Ask as many questions as you like and please express any concerns about medication, allergies or past medical history.

## Preparation before the procedure

To allow a clear view of the stomach please do not eat anything for **six hours** or drink anything for **two hours** prior to the test.

As X-Rays are being used for this procedure, it is important that you tell the doctor or nurse if you are, or think you may be pregnant. We will also want to know about any previous endoscopy procedures you may have had. If you have any worries or questions at any stage, please do not be afraid to ask.

## Please bring with you to your appointment:

- Your completed personal details form and your pre-assessment questionnaire.
- Any letters you have received from the hospital.
- Any medications or a list of medications that you are currently taking. It is important to remember any asthma inhalers, angina sprays, blood pressure medication or diabetic medication.
- Please remove any nail polish from your fingernails.

You should not bring valuables or large amounts of money into hospital, as we cannot accept responsibility for them.

## Medication

You may continue to take your usual medication up to the day of your test, but you must stop taking certain tablets. In some instances, your doctor may have asked you to stop



medication for your stomach for two weeks prior to your test. If you are taking any blood thinning medication such as **Warfarin, Rivaroxaban** or **Clopidogrel**, or any other blood thinning medication, you will have been informed of what to do. Please take any blood pressure tablets as normal. If you are diabetic and you have not received an information leaflet, please telephone the department before your procedure to confirm if you are on tablets, insulin, diet or a combination. The department will send you a leaflet providing you with guidance.

### **How long will I spend in the department?**

The procedure will take place in the X-ray department. If you are not already an inpatient, you will be admitted to the endoscopy unit before your procedure. The procedure itself takes about 20 - 30 minutes. Following the procedure, you will be taken back to the ward.

Occasionally we sometimes have to deal with unexpected emergencies and this can prevent us seeing you as quickly as we would like. We apologise if this happens to you. We will keep you fully informed and make sure you know the reasons for the delay.

### **Is there an alternative test I could have?**

An alternative test to an ERCP could include a Percutaneous Transhepatic Cholangiogram (PTC) or a Magnetic Resonance Scanner called a Magnet Resonance Cholangio-Pancreatography (MRCP). A PTC carries more risks than an ERCP and an MRCP does not offer any possibility of relieving a blockage in the system.

### **On arrival to the Endoscopy Unit**

One of the endoscopy nurses will talk to you, do your observations and explain the procedure to you. The endoscopist performing the procedure will also come and discuss it with you and will then ask you to sign the consent form.

### **What happens during the test?**

When ready, you will then be taken to the X-ray department. Please remove any false teeth just before the test begins and any jewellery or metal objects because they could interfere with the X-rays or the diathermy, which is a special machine sometimes used during the procedure.



**Throat spray:** You will be given a local anaesthetic spray to numb your throat. It has a slightly bitter banana taste. You may have the feeling of a 'lump' in your throat, but you will still be able to swallow. This is normal following the throat spray. The sensation of the spray lasts about 15-20 minutes. You will recover quicker using the spray and there will be no delay in you going home.

**Sedation:** Sedation is routinely given for this procedure. Midazolam is a sedative injection and may make you feel sleepy. It does sometimes have a short-term amnesic effect, which means you may not remember having the procedure. Please do not take any sleeping tablets on the day of your procedure if you are having sedation.

The sedation will be given to you through a cannula which you should have had in on your admission to the ward. You will be given some oxygen through a little piece of foam placed into one of your nostrils. A small clip will be placed on your finger to monitor your heart rate and oxygen levels throughout your procedure.

To keep your mouth open during the procedure, a plastic mouth guard will be placed between your teeth. When the endoscopist passes the gastroscope into your stomach, it may feel uncomfortable, but should not cause you any pain nor will it interfere with your breathing. X-ray dye will be injected down the endoscope so that the pancreas and bile ducts can be seen on the X-ray films.

If you get a lot of saliva in your mouth, the nurse will clear it using suction. If everything is normal, the endoscope is then removed quickly and easily and the test is complete.

### Sphincterotomy

If the X-rays show a common bile duct stone, the doctor will enlarge the opening of the bile duct. This is called Sphincterotomy. This is performed by using an electronically heated wire, known as a diathermy, which you will not feel. Any stones can then be removed by using a balloon or collected in a small basket. These will then pass through your intestine with no harm.

### Stent

If a narrowing is found in your bile duct, a stent can be inserted to drain.



off the bile. The stent is a small plastic or metal tube inserted into your bile duct through the endoscope. You will not be aware of the presence of the stent. It may become necessary to remove completely or replace the stent if it becomes blocked.

### **What happens after the procedure?**

The test can take up to 30 -45 minutes. Once completed you will be taken back to the recovery area in the Endoscopy Unit. Male and female patients are nursed in separate areas to maintain privacy and dignity at all times. Once the nurses are satisfied with your recovery you will then be taken back to your ward. You will need to rest, and the nurses will advise you when you can eat and drink. Upon completion of your procedure and once you have recovered, the findings will be discussed with you. We will be able to tell you any visual findings, however, any biopsies will need to be sent to the laboratory for testing, and this can take up to two weeks. You may be given a copy of the procedure report but a copy will also be sent to your GP and referring doctor.

### **When can I get back to normal activities?**

You should be able to go home on the day following the procedure. You should rest until you feel back to normal.

### **Can there be complications or risks?**

ERCP is the preferred investigation and treatment procedure for a variety of problems relating to gallstones and the pancreas. It carries a lower risk of complication than an operation, but occasionally problems are experienced. Your medical team will have felt the benefits of this procedure outweigh the professional risks.

These can include:

- The sedative can affect your breathing making it slow and shallow. This is more of a risk if you already have a heart or lung problem. If this were to happen you may need to stay in hospital overnight.
- You may suffer from a sore throat or feel some wind in your stomach. This will settle after a few days.
- There is a small risk of damage to crowned teeth or dental bridgework.
- Acute Pancreatitis – occurs in about 3% of patients. This means inflammation within the gland known as the



pancreas. Normally the pancreas produces proteins to digest food. If it becomes irritated, for example after an ERCP, some of these digestive enzymes leak out and cause upset to other parts of the body. The main symptoms of acute pancreatitis are abdominal pain and vomiting, and part of the reason for the routine overnight stay in hospital is to watch for and deal with this problem should it occur.

If the pancreas has become inflamed you will need to rest for a few days. This means staying in hospital and receiving fluids through a drip until the pancreas has recovered. The chances of developing acute pancreatitis after an ERCP are between 1 and 5 in every 100 patients having the procedure. For most patients recovery takes only a few days, and only very rarely are there more serious complications.

- Bleeding - if the doctor finds during the ERCP that you have a gallstone blocking your bile duct, they will perform a Sphincterotomy. Occasionally there is a little bleeding after this, but this usually settles down without any serious consequences. Significant bleeding occurs in about 0.5% of patients. Rarely bleeding can occur after you have been discharged from hospital. If you pass black sticky stools after an ERCP you should contact your GP. If it is out of hours, contact the out- of-hours GP service or Accident & Emergency.
- Perforation – this is rare, it occurs in about 0.5% of patients. Rarely bleeding can occur after you have been discharged from hospital. If you pass black sticky stools after an ERCP you should contact your GP. If it is out of hours, contact the out- of-hours GP service or Accident & Emergency.
- Perforation – this is rare, it occurs in about 0.5% of patients. A perforation is a tear or hole in the intestine or bile duct caused by the ERCP equipment. Some perforations close up on their own, but an operation may be required to close the perforation. The risk of perforation following a sphincterotomy is less than 1 in 100.
- Repeat ERCP - occasionally there are technical problems during the ERCP so that the procedure cannot be completed. If this happens you may require another procedure. This is most likely to happen if you are jaundiced. The yellowness typical of jaundice is due to a blockage in the drainage from the liver, and is not always possible to relieve this at the first attempt.



## Students

Occasionally there may be students observing procedures in the department or the doctor may be a trainee under the supervision of an experienced endoscopist. In either case, you will be told of any student involvement beforehand. You do not have to let students be part of your care; please tell us if you do not want them involved.

## Frequently asked Questions and Answers

### 1. Should I still come for the test if my symptoms have stopped?

If your symptoms have stopped you must contact us so we can speak to your referring doctor. Although the symptoms may have gone, the doctor may still want you to have the procedure done to ensure all is clear.

### 2. Will the procedure hurt? No, these examinations are not painful.

You may feel some discomfort from the air that is pumped into your stomach so that the endoscopist can view the lining adequately. Some patients find the air used to inflate the stomach slightly uncomfortable. You may also feel uncomfortable if a sphincterotomy is performed but it should not hurt.

**3. How soon can I eat and drink?** On the ward, you will be able to have a sip of water after an hour. You will then be able to increase this as you feel able. You can then start a normal diet.

**4. Can my relatives/friends stay with me?** It is best if your friends/relatives wait for you on the ward. You will be taken back to the ward once you have recovered from the procedure.

### 5. How long will I need to stay in hospital?

You will be admitted to a ward on the day of your procedure. As long as the procedure has gone well, you should be able to leave on the day.

### 6. Can I drive home after the procedure if I choose to have sedation?

If you have sedation you will not be allowed to drive home and must arrange for someone to accompany you and drive you home. Medication given during the test will prohibit you from driving until 24 hours after your examination. Please do not plan to use public transport.



## Contact details

If you are unable to keep your appointment or if you have any questions please ask a member of staff on the day or telephone the department:

**Doncaster Royal Infirmary, Tel: 01302 644167**

## Patient Experience Team

The team are available to offer advice or information on healthcare matters. Their office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email. The team can visit inpatients on all Trust sites.

### The contact details are:

**Telephone:** 01302 553140 or 0800 028 8059

**Email:** [pals.dbh@dbh.nhs.uk](mailto:pals.dbh@dbh.nhs.uk)