

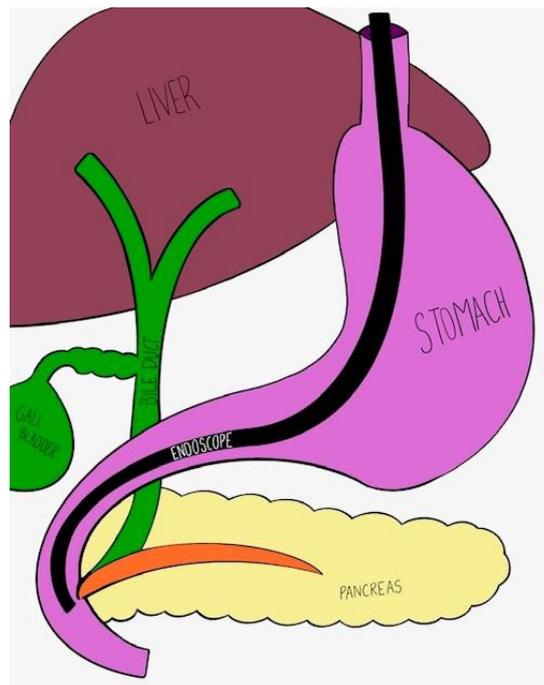


GIG  
CYMRU  
NHS  
WALES

Bwrdd Iechyd Prifysgol  
Aneurin Bevan  
University Health Board

# HAVING AN ERCP

## The Procedure Explained



**Patient information leaflet**

## WHAT IS AN ERCP?

ERCP stands for Endoscopic Retrograde Cholangio-pancreatography. It is a procedure carried out using an endoscope passed through your mouth into the stomach and beyond into the duodenum. It is carried out to manage conditions affecting the bile ducts or pancreatic duct. The majority of these conditions involve a narrowing of the ducts either due to stones blocking the ducts or narrowing from scar tissue or growths (tumours – cancerous and non-cancerous) affecting the bile ducts, pancreas or the opening of the bile duct (ampulla).

ERCP can allow the bottom of the duct to be widened using a cutting wire ('sphincterotomy'), or stretched up with a balloon. This allows stones to be removed, biopsies to be taken, or strictures to be widened either by placing a stent (a hollow tube) or by stretching them with a balloon. Exceptionally, a small camera is passed up inside the bile or pancreatic duct (a procedure known as cholangioscopy) to break up larger stones or to take very specific biopsies of a narrowing.

There are sometimes other reasons why an ERCP may be necessary, but these will be explained to you beforehand if they are not covered by this leaflet.

In the majority of cases the procedure will be planned in advance, and the operator will discuss with you what they intend to do at the time of ERCP. Rarely, as a result of what is found after the procedure begins, other additional procedures will need to be undertaken during ERCP, but the operator will tell you what other procedures may be necessary.

## **WHY AM I HAVING IT DONE?**

Most patients requiring an ERCP will have become jaundiced, have abnormal liver tests or have developed symptoms of abdominal pain. Subsequent scans (Ultrasound, CT or MRI, and sometimes a combination of these) have suggested a blockage in the bile or pancreatic ducts, requiring the ERCP to be performed. The specific reason you are having it done will be explained by the medical team, and by the operator prior to your procedure.

## **WHAT DOES IT INVOLVE?**

Some patients are admitted to hospital with symptoms and will require an ERCP whilst they are admitted, and others can have the procedure as a day-case. In-patient ERCP's are carried out at The Grange Hospital, whereas the majority of out-patient ERCP's are carried out at Nevill Hall Hospital. Some specialist procedures are carried out at The Grange Hospital as a day case.

### **NBM (Nil-by-mouth)**

All patients will need to have an empty stomach, and so will not be able to eat for 6 hours prior to the ERCP, and not drink for 4 hours. Sips of water are allowed up to two hours prior to the procedure. Chewing gum is also not allowed as it causes a lot of saliva to accumulate in the stomach. Any food or fluid in the stomach increases the risk that it may come up into your mouth during the procedure and be inhaled. This can cause 'aspiration pneumonia' which is a potentially serious and life-threatening complication.

## **MEDICATIONS**

Any medications that thin the blood (Warfarin, Clopidogrel (Plavix), Rivaroxaban, Apixaban, Heparin) need to be stopped at the right time. This depends on the medication, your kidney function, and the reason why you are taking it. Clopidogrel needs to be stopped 7 days prior to ERCP, so if you are concerned please contact the endoscopy unit (number following).

Generally speaking you should not take your normal medications on the morning of the procedure. If you are diabetic, you may require insulin into a vein during the procedure, but if your diabetes is controlled with tablets, the morning dose should be omitted on the day of the ERCP.

One of the potential complications of ERCP is pancreatitis (see below under RISKS OR ERCP). The chances of getting post-ERCP pancreatitis is halved by administering anti-inflammatories before the procedure. This is in the form of a suppository placed into your back passage approximately one hour beforehand, and is given as a matter of routine. If you are allergic to non-steroidal anti-inflammatories (Ibuprofen, Diclofenac or similar) please let us know, although this will be checked with you on the ward as well.

## **THE PROCEDURE**

The procedure itself is carried out in the endoscopy department with the help of X-Rays. You will see at least 4 people in theatre when you arrive. One is a nurse whose sole purpose is to ensure your safety and comfort during the procedure. Others are there to assist the operator and to operate the X-ray equipment.

You will be asked questions regarding your identity, any allergies or other potential hazards such as loose teeth, and confirmation that you understand what procedure you are going to have (see CONSENT below) and any other questions you may have. Monitoring equipment will be attached to keep an eye on your pulse, blood pressure and blood oxygen levels, and your throat will be sprayed with an anaesthetic spray to reduce the gag reflex. You will then be asked to lie more or less flat on your chest with you left hand behind you by your hip, and right hand by your face looking towards your right hand side. Your right knee can be bent slightly – similar to the recovery position. A mouth guard will be placed between your teeth and a sticky pad will stuck to your leg.



Once in position, sedating medication will be given through a cannula in your vein. This is not the same as an anaesthetic, but many patients do not remember much about the procedure. It is important you are comfortable during the procedure, and more sedation or pain relief can be administered if necessary.

The nurse looking after you during the procedure will monitor you for any signs that more sedation is required and inform the operator.

## **WHAT ARE THE RISKS OF ERCP?**

Complications arising from the sedating medication, an allergy to the materials used, damage to teeth, implanted crowns or bridges are very unusual, but can occur.

Other risks are mainly divided into 5 categories:

### **FAILURE**

Unfortunately, no one can boast a 100% success rate, and in about 5 cases in 100, ERCP is not successful. This may be because the anatomy is altered inside, the stone too large, or the stricture is too tight. Exceptionally there is failure of equipment, or the sedation may not be effective. Mostly, even though the procedure was not able to be completed, a temporary measure can be put in place. A further ERCP, or a different procedure may be planned as a result and this will be discussed with you.

### **INFECTION**

Infection in the bile ducts is rare (less than one case in 100). Antibiotics are not given routinely prior to ERCP, but may be in certain instances where the risk of infection is higher, and you may already be taking antibiotics if you have been admitted to hospital

### **PERFORATION**

Damage to the wall of the bowel either as a result of a pre-existing weakness in your oesophagus or duodenum, or as a result of the procedure itself is very rare (less than 1 in 100). It may be obvious at the time of the procedure or soon afterwards. In most cases, patients will need to stay in hospital until the perforation heals over, but some cases require surgery or further intervention, and may even be life-threatening in exceptional cases (less than 1 per 1000).

## **HAEMORRHAGE**

Bleeding occurs after ERCP in about 3 per 100 cases. In most instances the bleeding stops during the procedure, although sometimes the operator has to intervene to stop the bleeding, which in most cases is successful. Sometimes the bleeding will continue, requiring further procedures to halt the bleeding. This may be another endoscopy, or carried out by radiology specialists who can find the bleeding vessel and block it.

Rarely bleeding can occur up to 7 days after ERCP, and usually patients will notice dark or black stools or feel faint and unwell. If this occurs you should seek medical help immediately.

## **PANCREATITIS**

The pancreas is a gland that makes digestive juices and is located next to the bile duct. During ERCP it is possible to cause inflammation of the pancreas, known as pancreatitis, which occurs within 6 hours of ERCP in around 4 per hundred cases. This is usually a mild, but uncomfortable condition, requiring you to remain in hospital whilst fluids and pain relief are administered. More unusually, the entire pancreas can become inflamed causing severe pancreatitis, which is a more serious condition resulting in ITU admission and even death in about 1 per 10,000 cases.

As mentioned above, the risks of pancreatitis are halved if a Diclofenac suppository is administered before ERCP, so this is offered in all cases except where there is a strong clinical reason not to give it.

## **WHAT ALTERNATIVES ARE THERE?**

Bile duct drainage via the skin is sometimes undertaken instead of ERCP in specific circumstances. Bile duct stones can also occasionally be removed at the time of surgery. These alternatives can be discussed with the operator.

## **CONSENT**

ERCP is undertaken after careful consideration where the alternatives are thought to be less useful. The medical teams looking after you, and the operator will discuss the indications and alternatives with you. It is important to understand that it is entirely your choice to undergo the procedure after evaluating the risks and alternatives.

The consent process is an opportunity for you to understand why your medical team feel ERCP is indicated, that the risks and alternatives have been explained to you, and that you agree to having the procedure carried out. This process is formalised by signing a consent form, but it is important that you know that consent can be withdrawn at any time, and if you do not wish to proceed at any point, you are within your rights to do so.

## **WHAT HAPPENS AFTER THE PROCEDURE?**

After the procedure is finished you will be escorted by a nurse to the recovery area, and then back to your ward, or discharged home. You will be closely observed for 4 to 6 hours post procedure and then may be able to be discharged by the team on the ward or in the endoscopy department.

The majority of complications occur either at the time of ERCP or in the next 4-6 hours. Exceptionally small perforations or bleeding can become apparent after a day and up to 7 days post ERCP. If you notice black stools, a temperature or abdominal pain, please contact the endoscopy department or seek medical help as required.

## WHEN CAN I GO HOME?

Day case procedures are discharged home after 6 hours if all is well and you have had something to eat. Inpatients may need to be discharged by their medical team, and this depends on whether any other treatments or interventions are planned.

## WHO CAN I CALL IF I HAVE ANY CONCERNS?

If you feel unwell or are concerned that you may have a complication arising from your procedure then please contact the **Gwent Endoscopy unit on 01633 234225**

If you are severely unwell please contact emergency services or your GP to discuss admission to hospital for assessment.

Endoscopy scheduling (for appointment queries)

**01633 234425 / 01873 732669**

"This document is available in Welsh/  
Mae'r ddogfen hon ar gael yn Gymraeg"