University Hospitals Dorset
NHS Foundation Trust

Advice for patients and carers about having

Endoscopic Retrograde Cholangiopancreatography (ERCP)

This booklet is designed to be practical and informative. Please read all the information or you may miss important instructions.

If you have any questions regarding the information or instructions in this booklet, please call the Endoscopy Department on the number below and a member of staff will be pleased to help you.

- **Royal Bournemouth Hospital Endoscopy Department**:
  0300 019 4668 (Monday to Friday, 8am to 6pm)
- **Royal Bournemouth Hospital Pre-Assessment office**:
  0300 019 4908 (Monday to Friday, 8am to 5pm)
- **Poole Hospital Endoscopy Department**:
  0300 019 2772 (Monday to Friday, 8am to 6pm)

How do I prepare for endoscopic retrograde cholangiopancreatography (ERCP)?

1. **Read this booklet before you attend your appointment**
2. **Arrange for someone to collect and accompany you for at least 24 hours after the procedure (you will not be able to drive or work for 24 hours afterwards)**
3. **Attend your pre-assessment appointment if advised to do so. This may be over the telephone or in person.**

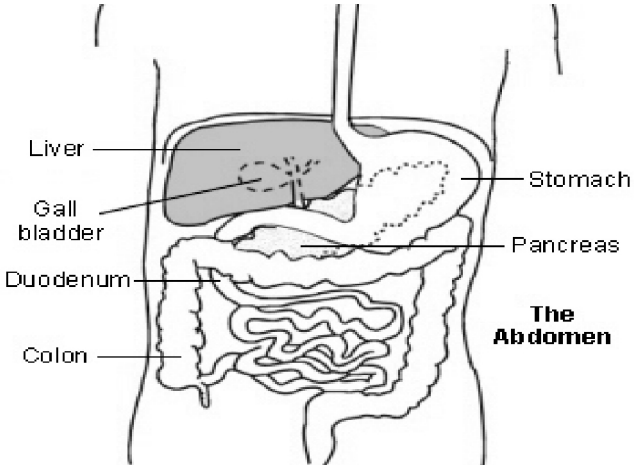
What is an ERCP?

ERCP stands for endoscopic retrograde cholangiopancreatography. It allows the doctor to see into your bile duct by using an endoscope, which is a long, thin, flexible tube with a tiny camera on the end. When the endoscope is inside your body, x-rays will be taken. An ERCP can take anything from 20 minutes to over an hour.

Why has my doctor recommended that I have an ERCP?

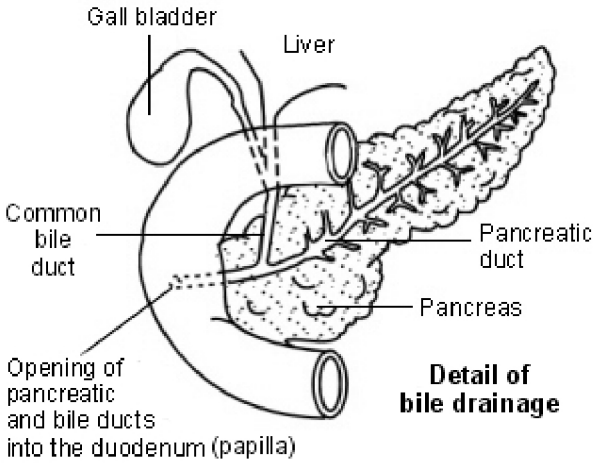
ERCP usually follows blood tests and an ultrasound scan and there are many reasons that one may be suggested. Your doctor will explain specifically why you are having the procedure, but common reasons include:

- jaundice (yellow skin and eyes)
- abnormal blood results (liver tests)
- gallstones or other blockages in the bile duct or pancreatic duct.



The bile ducts and nearby structures

Bile is made in the liver, which is in the upper right part of the abdomen. The bile constantly drips down a tube called the common bile duct, through an opening called the papilla, into the duodenum (the first part of the gut after the stomach). The gallbladder is a pouch which comes off the common bile duct. It stores bile and releases it when you eat to help you digest food, particularly fatty food. The pancreas is a gland that is joined to the common bile duct and makes enzymes (chemicals), which are vital to digest food. (It also makes hormones such as insulin).



Are there any alternatives to this procedure?

Yes, there will be alternatives to having an ERCP performed. ERCP is often the best way to provide treatment for problems relating to the bile duct or pancreas. The suitability of alternative procedures will depend on the reason for the ERCP being suggested for you. Commonly alternatives can include watching and waiting (conservative treatment), providing treatment through the tummy wall under x-ray guidance (percutaneous transhepatic cholangiogram – PTC), or surgery. If you wish to discuss the alternatives with a member of the team, please do contact your referring doctor or the endoscopy department.

Can I seek a second opinion?

Yes, at any stage. This can be arranged through your GP or consultant.

Can I change my mind?

You are within your rights to change your mind at any stage. You may find it helpful to discuss the test with your family, friends, GP, or consultant. If you decide not to go ahead with your ERCP, please let us know as soon as possible.

Before the procedure

If you are having an ERCP as an outpatient, then you will be pre-assessed by one of our specialist nurses. They will assess your suitability for an ERCP, general anaesthetic and the possibility of an overnight stay. You may undergo a physical examination, blood tests and an electrocardiogram (ECG). These tests are essential to ensure it is safe to go ahead with the procedure. You will have the opportunity to ask questions. (If you are having an ERCP as an inpatient, this preparation will be carried out during your stay in hospital).

If you are taking **warfarin**, or similar medication to **thin the blood** (e.g., Apixaban, Clopidogrel, Dabigatran, Dipyridamole, Prasugrel, Rivaroxaban, Ticagrelor, Sinthrome, Edoxaban) you will normally need to stop taking these before your procedure. You will be given advice on this during your pre-assessment.

Nil by mouth instructions will be discussed with you at your pre-assessment appointment.

What will happen on the day?

On the day of the ERCP you will be admitted to the Endoscopy Department by the nurses and a small needle will be placed in your hand or arm for the administration of medication during the procedure. You may also see an anaesthesist on the day of your procedure depending on what type of sedation is needed. A doctor or nurse will ask you to sign a consent form for the ERCP.

Please tell us if you are allergic to anything and bring a list of your current medications with you.

If you have any communication difficulties, or require a translation service, please let the nursing staff know on the day and they will ensure you have the support you need.

Who will be in the procedure room with me?

You will be accompanied into the procedure room by a nurse/healthcare assistant who will assist the endoscopist with equipment and the collection of samples. Also present will be a radiographer who will assist with x-ray equipment as required. With your consent, nursing students and medical staff in training may be present in the room to watch the procedure.

The procedure will be performed by a consultant endoscopist. An experienced doctor who is completing their training in advanced endoscopy may be present, assisting with or learning to perform ERCP under the direct, expert supervision of the consultant. If you would prefer not to have your ERCP performed by someone who is training, you will have the opportunity to make this known before entering the procedure room.

What will happen during the procedure?

A nurse will stay with you throughout your procedure. You will be asked to remove any false teeth, spectacles, or contact lenses. You will be asked to lie on the x-ray table. A probe will be put onto one of your fingers to check the amount of oxygen in your bloodstream and an oxygen mask placed over your nose and mouth.

In some cases, a general anaesthetic is required. Alternatively, you may be given a combination of a sedative to make you sleepy, a painkiller to keep you comfortable, and a muscle relaxant to help control the movement of the gut. This does not make you unconscious, although many patients are very sleepy within a few minutes and do not remember anything else about the procedure.

A mouth guard will be placed between your teeth and gums to protect them and prevent damage to the endoscope. Then the doctor will pass the endoscope through your mouth, down into your stomach and then into your small bowel (duodenum). A fine tube is then passed down the endoscope and inserted into your bile duct. Dye is injected through this tube and x-rays are taken. The dye passes out of your body harmlessly.

If the x-rays show any gallstones stuck in the bile duct, the doctor can enlarge the opening of the duct (papilla), by making a cut with an electrically heated wire (sphincterotomy). You will not feel this. Stones might then be pulled out with a small balloon and/or crushed with a small basket device and pulled into the duodenum through the widened opening. The stones will be passed naturally in your faeces (poo).

Following successful removal of stones from the bile duct, your doctor may recommend surgery to remove your gallbladder.

Occasionally it may not be possible to remove the stone/s from the duct and you may have to come back in about two or three months for a further attempt. If this is the case, a small plastic tube called a stent will be placed to allow bile to flow freely from the liver into the duodenum.

If the x-rays show a narrowing or blockage in the bile duct, the doctor can put a plastic or wire mesh stent inside to allow the bile to flow. You will not be able to feel the stent inside you. Occasionally small samples may be taken from the bile duct, or near the opening of it.

What are the risks of having an ERCP?

The majority of people who have an ERCP have no serious complications and 90% of procedures are successful. As with all medical procedures, there are some side-effects and risks. Some people experience some abdominal discomfort afterwards because of the air that has been put into the stomach. This usually settles by itself within a few hours.

Sedation/anaesthesia
There is a slight risk of developing a chest infection following an ERCP. Because sedation/general anaesthetic is used, there is a small chance of heart and lung problems during or after the procedure. The risk of complications is higher if you are already in poor general health. Your doctors will have carefully weighed up the benefit from this procedure against the small risk of complications.

Pancreatitis
Inflammation of the pancreas sometimes occurs after an ERCP as the bile duct is next to the pancreas. It can be minor or severe and can be very painful. It usually requires some days in hospital for intravenous fluids and painkillers. The risk of pancreatitis from having an ERCP varies from person to person, overall, approximately 1 in 40 people experience pancreatitis after an ERCP at Royal Bournemouth Hospital. An anti-inflammatory suppository (a medicine inserted into your back passage) can reduce the risk of complications developing. This is usually administered while you are still under general anaesthetic or sedation.

Bleeding
If a cut is made into the opening of the bile duct (sphincterotomy) to remove a stone, there is a risk of bleeding in 1 in 100 cases. This usually settles by itself. Rarely, a blood transfusion or surgery may be required.

Infection
Infection of the bile duct (cholangitis) may occur after an ERCP in 1 in 100 cases. This requires treatment with antibiotics.

Perforation
Uncommonly, a small tear (perforation) may be made in the gut lining. The risk is low for most patients but increases for more complex procedures. Internal audit for our department shows that the overall risk of perforation during ERCP is between 1 and 2 in 100. It can be treated by resting the gut and giving intravenous fluids. Sometimes surgery is needed.

Serious complications
Life threatening complications are uncommon but do occur. The risk of death following an ERCP is 1 in several hundred and varies according to a person's past medical history and general health.

Due to the risks, we monitor you closely after your ERCP. If complications do arise, then you will be reviewed by a doctor, and may have to stay in hospital.

Failure
There is 1 in 10 chance that the procedure will be unsuccessful. If this is the case, your doctors will discuss any further treatment or options with you. Even if you have a successful procedure, it may be necessary to have further ERCPs to complete your treatment.

What happens after the procedure?

You will be taken on a trolley to the recovery area in the Endoscopy Department, where you will be monitored closely until you are fully awake. You may sleep for about an hour after the procedure and then feel drowsy for a few hours. Because of the sedative or general anaesthetic, most people do not remember much about the procedure. The effects of the medication may vary slightly from person to person. If all is well, you will normally be allowed to drink clear fluids after two hours and start eating a light diet after a further two hours if no problems arise. The endoscopist may alter these directions depending on the outcome of your ERCP.

You will be told the result of the ERCP and what treatment has been given. If you have any questions, do not hesitate to ask your doctors or the nursing staff.

It is essential you are observed for 24 hours after a general anaesthetic. Some people stay in hospital overnight after an ERCP for observation, however there may be an opportunity for you to be discharged on the same day if you recover well from the ERCP and if there is someone to accompany you home and to stay with you overnight.

For 24 hours after sedation or general anaesthetic you must not drive any motor vehicle, work, operate heavy machinery, sign anything legally binding, drink alcohol or take sedative medication, or look after babies or young children. You are advised to rest.

Most patients who have an ERCP can return to work 24hours after the procedure, however this depends upon the complexity of the procedure. If you are unsure of when to return to work, please ask medical staff before you are discharged home post ERCP.

As part of our department's ongoing commitment to maintaining standards and providing quality healthcare, you may be contacted after your procedure and asked to complete a questionnaire. You do not have to complete the questionnaire, but the more people who answer the better.

If you have had a stent put in your bile duct:

This is the drainage tube which allows bile to flow away from your liver freely. Some of these stents have a limited life and can block after a few months or sooner. The symptoms of this can be:

- jaundice (yellow skin and eyes)
- pale stool (poo)
- dark urine
- itching
- fever (raised temperature)

If you get any of these symptoms, you must contact your GP or phone the number given to you at the time of discharge (see below for a list of contact numbers). Arrangements may then be made to bring you into hospital urgently for the stent to be replaced.

What if I feel unwell after discharge?

If any of the following occur within 48 hours after having the ERCP, you must contact a doctor or attend the Emergency Department immediately:

- severe pain in your tummy (especially if it becomes gradually worse)
- fever (raised temperature)
- difficulty breathing
- vomiting blood or passing black poo

Taking a copy of your discharge advice can help to ensure you receive prompt investigation and treatment.

You can also call the following numbers for advice:

Royal Bournemouth Hospital Endoscopy Department:
0300 019 4668 (Monday to Friday, 8am to 6pm)

Royal Bournemouth Hospital Ward 1 (Gastroenterology):
0300 019 4995 (24 hours)

Poole Hospital Endoscopy Department:
0300 019 2772 (Monday to Friday, 8am to 6pm)

Please don't be a DNA!

A DNA is someone who Did Not Attend for a hospital appointment and did not advise us beforehand. Many appointments each year are wasted in this way. If you cannot attend, or need to rearrange your appointment, please telephone the number on your appointment letter.