

Endoscopic Retrograde Cholangiopancreatography (ERCP)

Endoscopy Department



Patient information leaflet

The aim of this information sheet is to help answer some of the questions you may have about having an ERCP. It explains what it is, why it is done, the benefits, risks and alternatives of the procedure, as well as what you can expect when you come to hospital. If you have any questions or concerns, please do not hesitate to speak to the doctor or nurse caring for you.

What is an ERCP?

An ERCP is a type of x-ray and camera examination that enables your doctor to examine and/or treat conditions of the biliary system (liver, gall bladder, pancreas, pancreatic and bile ducts).

Why is an ERCP performed?

The most common reasons to do an ERCP are jaundice (yellowing of the skin or eyes) or abnormal liver blood tests, especially if you have pain in the abdomen, or if a scan (ultrasound or CT scan) shows a blockage of the bile or pancreatic ducts. Blockages can be caused by stones, narrowing of the bile ducts (strictures), and growths or cancers of the pancreas and bile ducts.

During an ERCP, stents (small plastic or metal tubes) can be inserted into the bile ducts, to allow drainage of bile into the intestine. Stents can also be inserted into the duodenum for patients who have a blockage to the flow of food out of the stomach. An ERCP can give more information about the pancreas and bile ducts, and brushings and biopsies (specimens of cells for analysis) can be taken from the bile ducts or the pancreas.

What are the benefits of an ERCP?

An ERCP allows your doctor to gain detailed and accurate information about your pancreatobiliary system. It often allows treatment of obstructive jaundice (jaundice caused by a blockage in the bile drainage system). It is sometimes used to help remove pancreatic stones or to put a stent into a narrowed pancreatic duct. This can be helpful in dealing with pain.

What are the risks of the procedure?

ERCP is generally safe but complications can sometimes occur.

Minor complications:

- Mild discomfort in the abdomen and a sore throat, which may last up to a few days.
- Loose teeth, crowns and bridgework can be dislodged, but this is rare.
- Mild inflammation of the pancreas (pancreatitis). This can happen in approximately five in 100 people. If pancreatitis happens, you will have pain in the abdomen, usually starting a few hours after the procedure and lasting for a few days. The pain can be controlled with painkillers and you will be given an intravenous (into a vein) infusion of fluids in hospital to keep you hydrated until the pain subsides.
- Inability to gain access to the bile or pancreatic ducts. The procedure has a failure rate of 8-10%.
- Irritation to the vein in which medications were given is uncommon, but may cause a tender lump lasting for several days.

Possible major complications:

- Severe pancreatitis can occur following an ERCP. We can treat this with medication or surgery. Although it is very rare, severe pancreatitis can be fatal (less than one in 500 cases).
- If sphincterotomy (a small cut in the bottom of the bile duct) is performed, there is a risk of bleeding which usually stops quickly by itself. If it does not stop by itself we may need to inject the bleeding point with adrenaline through an endoscope. However, in severe cases, blood transfusion, a special x-ray procedure or an operation may be required to control the bleeding.
- Very frail and/or elderly patients can get an aspiration pneumonia from stomach juices getting into the lung (approximately one in 500 cases).

- A hole may be made in the wall of the duodenum (perforation), either as a result of sphincterotomy or due to a tear made by the endoscope. This happens in less than one in 750 cases. It might require surgery to put right and may occasionally be fatal.
- A very rare complication is a reaction to one of the sedative drugs used.

What are the diagnostic alternatives to this procedure?

- A CT (computerised tomographic) scan can be performed, but the investigation is less sensitive, small growths (less than 1cm) can be missed, no biopsies can be obtained, and no stents can be inserted.
- An MRI (magnetic resonance imaging) scan can be performed, but the investigation does not allow direct vision of the bile ducts, no biopsies can be obtained and no stents can be inserted. Also, you may not be able to have an MRI scan if you have some internal metalwork (e.g. pacemaker, joint replacements).
- An ultrasound scan can provide ultrasonic images of the biliary system, but a biopsy cannot be obtained and no stents can be inserted.
- An endoscopic ultrasound can be performed, but stones cannot be removed, a sphincterotomy (cut at the base of the bile duct) cannot be performed, and no stents can be inserted.
- Although ERCP carries risks, it is only carried out when the doctors have carefully balanced the risks of doing this test compared with doing any other test or operations, and the risks of doing nothing. Your doctor will be happy to discuss this with you further.

What are the therapeutic alternatives to this procedure?

- Percutaneous Trans hepatic cholangiogram (PTC), performed under x-ray guidance, is an alternative which allows therapeutic intervention (treatment). However PTC does not allow us to see the bile ducts directly. This procedure has higher risks of bleeding from the puncture site in the liver.
- Major abdominal surgery to clear bile duct of stones or to bypass an obstructed bile duct is the only other alternative to an ERCP.

What preparation is required?

To allow a thorough examination, it is essential that the stomach is empty. Please fast from food for 6 hours prior to the test. You may drink clear free fluids up until 2 hours before the test. After that you must have nothing to eat or drink until after the procedure. ERCP is best carried out under sedation. Therefore, you will need to arrange for someone to accompany you to the appointment and to take you home afterwards.

Follow medication advice

Please withhold Aspirin on the day of procedure.

Please contact the endoscopy unit on 01483 406606 / 406607 if you take any of the following medications for advice, as you may need to stop taking them before your procedure:

- Warfarin
- Vorapaxar
- Clopidogrel / Prasugrel / Ticagrelor
- Rivaroxiban / Apixaban / Dabigatran/ Edoxaban
- Fragmin
- Insulin
- Diabetes tablets – e.g. Metformin, Gliclizide etc.

What happens on the day of the examination?

When you arrive you will be seen by a nurse who will check your medical history, you will be asked to change into a hospital gown, your blood pressure taken and a small cannula inserted in the back of your hand.

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves. You should receive the leaflet, **Helping you decide: our consent policy**, which gives you more information. If you do not, please ask a member of staff caring for you for a copy.

What happens during an ERCP?

A local anaesthetic spray will be used to numb the back of the throat. You will be asked to lie on your left side, and a plastic mouth guard will be placed gently between your teeth. A nurse will stay with you throughout the examination.

ERCP is performed with sedation, which is administered through a small needle placed in the back of your hand. Rarely, using sedation can cause breathing complications. To minimise this risk, we monitor your pulse and oxygen levels at all times throughout the procedure, and oxygen is given.

During the ERCP, some air will be passed down the tube to distend the stomach. This may make you feel bloated. The air will be removed at the end of the test.

To obtain information about the biliary system, a small tube is passed through the endoscope into the bile duct, and contrast (dye) will be injected to take X-ray images. Often the doctor needs to perform therapeutic interventions including inserting a hollow tube, called a stent, into the bile duct; expanding a narrowed area (called dilating a stricture); removing gallstones or widening the entrance to the biliary system (called a sphincterotomy). Biopsies or tissue samples may be taken for analysis.

What happens after an ERCP?

After the procedure you will be taken to the recovery area. You will need to rest quietly until the sedative has worn off. The nurse will check your blood pressure and pulse and offer you something to drink.

When you are safe to be transferred, you will be escorted to our patient lounge where you will receive hot drinks, sandwiches and biscuits. You will be discharged home with your next of kin and given post procedure information by the doctor, endoscopy nurse or specialist nurse. If samples were taken, the results will generally be available within 7-10 days of the test. You will be informed of these results by the specialist nurse who will arrange necessary follow up and further investigations as required.

Going home

If you have sedation, you must have someone to escort you home and stay with you for 24 hours. He/she should come with you for the appointment or be contactable by phone when you are ready to leave. 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.

The sedation lasts longer than you may think, so in the first 24 hours after your examination, you should not:

- drive or ride a bicycle
- operate machinery or do anything requiring skill or judgement
- drink alcohol
- take sleeping tablets
- go to work
- make any important decisions, sign contracts or legal documents.

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.

What do I need to do after I go home?

If you have a question or concern after the test, please phone the Endoscopy Unit on **(01483) 571122** ext. **4409** between 8am–6pm.

Please consult your GP, contact 111, contact Royal Surrey County Hospital NHS Foundation Trust Accident and Emergency department on **(01483) 571122** ext. **4293** or go to your nearest A&E department if you develop post procedure complications.

References

- <https://patient.info/health/gallstones-and-bile/ercp-endoscopic-retrograde-cholangiopancreatography>
- <https://www.nhs.uk/conditions/gallstones/treatment/>

Contact details

If you require further information or advice, please feel free to contact us.

Endoscopy Unit

Telephone: 01483 571122 **ext** 4409 (8am–6pm, Monday to Friday)

During out of hours, advice can be obtained from your local accident and emergency department or GP.

PALS and Advocacy contact details

Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located on the right hand side as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

Telephone: 01483 402757

Email: rsc-tr.pals@nhs.net

Opening hours: 9.00am–3.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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