

## E04 ERCP

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You can get more information locally from the Endoscopy Unit (9am to 5pm) on 0151 604 7095

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## What is an ERCP?

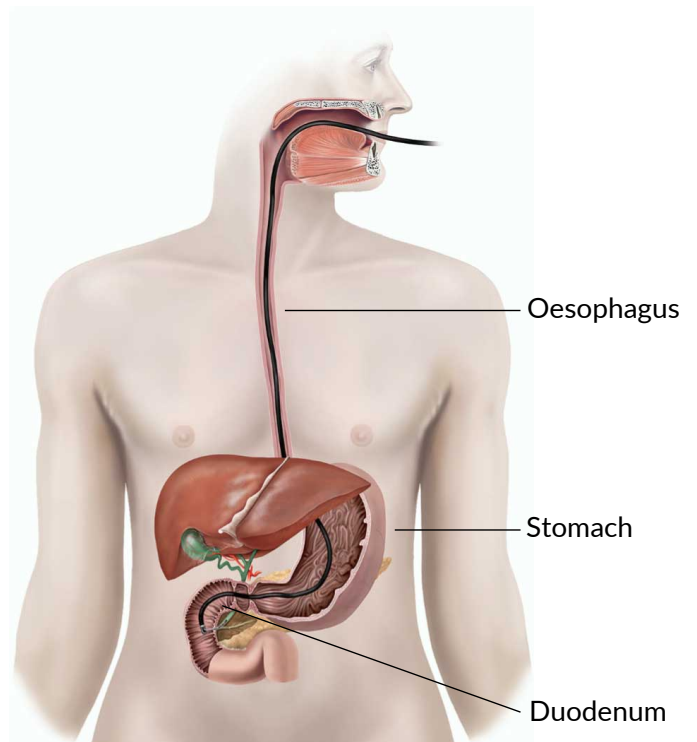
An ERCP (endoscopic retrograde cholangio-pancreatogram) is a procedure to look for any problems in your bile duct or pancreatic duct (tubes that carry bile from the liver and digestive juices from the pancreas to the intestine) using a flexible endoscope (camera).

### Shared decision making and informed consent

Your healthcare team have suggested an ERCP. However, it is your decision to go ahead with the procedure or not. This document will give you information about the benefits and risks to help you make an informed decision.

Shared decision making happens when you decide on your treatment together with your healthcare team. Giving your 'informed consent' means choosing to go ahead with the procedure having understood the benefits, risks, alternatives and what will happen if you decide not to have it. If you have any questions that this document does not answer, it is important to ask your healthcare team.

Once all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point. You will be asked to confirm your consent on the day of the procedure.



An ERCP

## What are the benefits?

Your healthcare team have suggested an ERCP because they are concerned that your bile duct or pancreatic duct are not working properly. Scans of your liver, pancreas and bile ducts are normally performed before a ERCP is suggested.

Gallstones in your bile duct or a narrowing of your bile duct are common problems, both of which can cause abdominal pain or jaundice (your eyes and skin turning yellow).

If the endoscopist (the person doing the procedure) finds a problem, they may take samples during the procedure to test afterwards.

## Are there any alternatives?

There are other ways of looking at your bile duct such as a scan called an MRCP (an MRI scan of your pancreas and bile ducts), or a procedure called endoscopic ultrasound. These other investigations have fewer complications but cannot be used to treat the cause of your symptoms, which an ERCP is often able to do. You may already have had one of these tests.

Your healthcare team may suggest a surgical or radiological procedure to treat the cause of your symptoms.

## What will happen if I decide not to have the procedure?

Your healthcare team may not be able to confirm or treat what is causing your symptoms. If your symptoms get worse, speak to your healthcare team.

If you decide not to have an ERCP, you should discuss this carefully with your healthcare team.

## Before the procedure

### Medication

If you take warfarin, clopidogrel or other blood-thinning medication, let your healthcare team know at least 10 days before the procedure.

If you have diabetes and take medication containing metformin, let the healthcare team know at least 10 days before the procedure. You may need to stop taking it on the day of the procedure and for the next 2 days. You may need to have a blood test after the procedure before continuing with your medication. You will need special advice depending on the treatment you receive for your diabetes.

### Preparation

You will need to have regular blood tests before the procedure.

If you are female, the healthcare team may ask you to have a pregnancy test as some procedures involve x-rays or medications that can be harmful to unborn babies. Sometimes the test does not show an early-stage pregnancy so let the healthcare team know if you could be pregnant.

Do not eat anything in the 6 hours before your appointment, and only drink small sips of water. This is to make sure your stomach is empty so the endoscopist can have a clear view. It will also make the procedure more comfortable. You can continue to drink small sips of water up to 2 hours before the procedure.

### When you arrive

The healthcare team will carry out a number of checks to make sure you have the procedure you came in for. You can help by confirming your name and the procedure you are having with the healthcare team.

## What does the procedure involve?

An ERCP usually takes 30 to 45 minutes.

A cannula (thin, hollow tube) may be put in your arm or the back of your hand. This allows the endoscopist to give you medication during the procedure.

Some medications that may be used are:

- A sedative that will help you feel comfortable. You will be conscious so if at any time you want the procedure to stop, raise your hand. The endoscopist will end the procedure as soon as it is safe to do so.
- Pain relief that will reduce the chance of you experiencing severe pain or discomfort during the procedure.
- Medication to relax your muscles (Buscopan). This will make the procedure more comfortable. Buscopan can affect the pressure in your eyes so let the healthcare team know if you have glaucoma.
- A throat spray with some local anaesthetic. This can taste unpleasant but helps to keep you comfortable during the procedure.
- Anti-inflammatory medication to reduce the risk of inflammation in your pancreas.

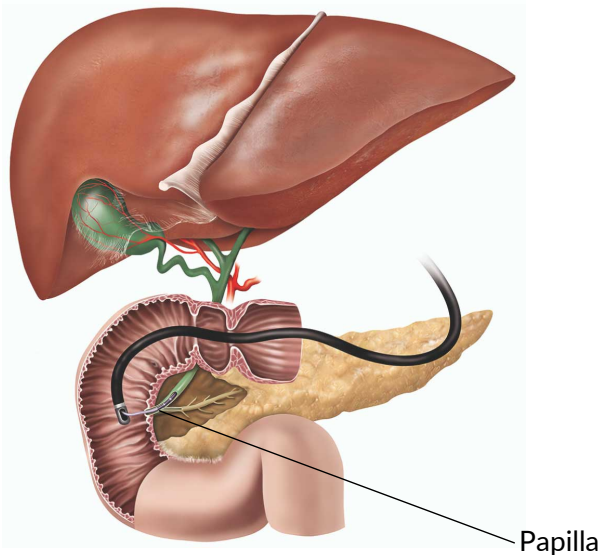
You will be asked to remove any false teeth or plates. The endoscopist will ask you to lie on your left side and will place a plastic mouthpiece in your mouth. This will keep your mouth open and stop you biting the endoscope.

The healthcare team will monitor your oxygen levels and heart rate using a finger or ear clip. If you need oxygen, they will give it to you through a small tube under your nostrils.

The endoscopist will place an endoscope into the back of your throat. They may ask you to put your chin down to open up your throat. This will help it pass easily to your oesophagus (gullet).

The endoscope is then positioned to look at the papilla. The papilla is a small circle of muscle that controls what goes through it.

A fine tube is inserted through the endoscope and into your bile duct or pancreatic duct through the papilla.



A tube inserted through the papilla

Dye (colourless contrast fluid) is injected into the ducts and x-rays are taken that show the ducts.

If there are gallstones in your bile duct, they can usually be removed using a sphincterotomy (a cut in the papilla). The lower part of the bile duct may also be stretched with an inflatable balloon. This creates a wider space to pull gallstones out. If the gallstones are large, the endoscopist can insert a stent (tube) in your bile duct to help relieve jaundice. This can also relieve jaundice caused by a narrowing of your bile duct.

Photographs and videos may be taken during the procedure. These may help with your treatment and are stored securely by your healthcare team and discussed with other healthcare professionals.

If at any time you want the procedure to stop, let the endoscopist know. They will end the procedure as soon as it is safe to do so.

### Can I be sent to sleep for the procedure?

In rare cases the procedure can be performed with you asleep under a general anaesthetic or deep sedation. However, most centres do not offer this. If this an option for you, the healthcare team will talk to you about this before your procedure date.

General anaesthetic is given through the cannula, or as a mixture of anaesthetic gas that you breathe through a tube that passes into your

airways. This means you will be unaware of the procedure.

A general anaesthetic has a higher risk of complications than other forms of medication. The healthcare team can give you more information about these. You may also need to wait longer for your procedure.

Most patients manage well without a general anaesthetic.

### What complications can happen?

The healthcare team are trained to reduce the risk of complications.

Any risk rates given are taken from studies of people who have had this procedure. Your healthcare team may be able to tell you if the risk of a complication is higher or lower for you.

Possible complications of this procedure are shown below from most to least likely to happen. Some can be serious. Rarely, you may need to come back into hospital for more treatment, including surgery.

You should ask your healthcare team if there is anything you do not understand.

### Complications of an ERCP

- Sore throat. This gets better quickly.
- Damage to teeth or bridgework. The endoscopist will place a plastic mouthpiece in your mouth to help protect your teeth. Let the endoscopist know if you have any loose teeth.
- Incomplete procedure caused by a technical difficulty, food or blockage in your upper digestive system, complications during the procedure or discomfort. Your doctor may recommend another ERCP or a different test.
- Inflammation of your pancreas (pancreatitis), which causes abdominal pain and can make you feel sick (risk: 1 in 10). If the endoscopist thinks you have a high risk of developing pancreatitis, you may be offered medication (diclofenac). This is an anti-inflammatory and given as a suppository (soft tablet placed in your back passage). Most cases of pancreatitis are mild and settle within a few days.

However, some cases can be serious and you may need to stay in hospital for a while.

- Breathing difficulties or heart irregularities, as a result of reacting to the sedative or inhaling secretions such as saliva. To help prevent this, your oxygen levels will be monitored, and a suction device will be used to clear any secretions from your mouth.
- Chest infection. You may need antibiotics.
- Blurred vision, if you are given a Buscopan injection. This usually gets better after about an hour. Sometimes the injection can also affect the pressure inside your eye. This is more likely if you have glaucoma. If your eye becomes red and painful, and your vision becomes blurred, let the endoscopist or your healthcare team know straight away.
- Infection within your bile ducts (cholangitis) (risk: less than 1 in 100). You will usually be given further antibiotics to reduce the risk of a serious infection.
- Allergic reaction to the equipment, medication or dye. This usually causes a skin rash which settles with time. Sometimes the reaction can be serious (risk: less than 1 in 2,500) or even life-threatening (risk: 1 in 25,000). The healthcare team are trained to detect and treat any reactions that may happen. Let the endoscopist know if you have any allergies or if you have reacted to any medication or tests in the past.
- Infection. It is possible to get an infection from the equipment used, or if bacteria enter your blood. The equipment is disinfected before the procedure, so the risk is low. You may be given antibiotics before your procedure. Let your healthcare team know if you get a high temperature or feel unwell after the ERCP.
- Making a hole in your gullet (oesophagus), stomach or part of your small intestine (duodenum), particularly if a sphincterotomy is performed (risk: 1 in 200).
- Heavy bleeding, which usually stops on its own (risk if you have a sphincterotomy: 3 in 100). You may need surgery if the bleeding continues.

- Rarely, a heart attack (where part of the heart muscle dies) or stroke (loss of brain function resulting from an interruption of the blood supply to your brain) can happen if you have serious medical problems.
- Death (risk: 1 in 250).

## What happens after the procedure?

### In hospital

If you were given a sedative, you will be transferred to the recovery area where you can rest. You will usually recover in about an hour, but this depends on how much sedative you were given. Once you can swallow properly you will be given a drink. You may feel a bit bloated for a few hours, but this will pass.

The healthcare team will monitor you to make sure any complications are spotted and treated early. This may mean you stay in hospital a little longer.

You may be able to go home the same day. However, your doctor may recommend that you stay a little longer.

The healthcare team will tell you the results of the procedure and talk to you about any treatment or follow-up care you may need. If your treatment is for jaundice, it usually takes several days for this to settle.

Before you leave, you will be given a discharge advice sheet and a copy of your ERCP report. The advice sheet will explain who to contact if you have any problems after your procedure. A copy of the report will be sent to your GP and doctor.

### Returning to normal activities

If you had sedation and you go home the same day:

- If you go home the same day, a responsible adult should take you home in a car or taxi. They should stay with you for at least 24 hours unless your healthcare team tells you otherwise.
- Be near a telephone in case of an emergency.
- Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) for at least 24 hours and not until



you have fully recovered feeling, movement and co-ordination.

- Do not sign legal documents or drink alcohol for at least 24 hours.

You should be able to return to work the next day unless you are told otherwise.

You may experience some pain over the next 1 to 2 days. This may include abdominal pain, bleeding, feeling dizzy, faint or vomiting. If these problems do not get better, contact the endoscopy unit, your GP or call 111. If you have serious symptoms, like difficulty breathing or heavy bleeding from your back passage, call an ambulance or go immediately to your nearest emergency department.

## Summary

An ERCP is usually a safe and effective way of finding out if there is a problem with your bile duct or pancreatic duct and treating your symptoms. However, complications can happen. Being aware of them will help you make an informed decision about surgery. This will also help you and the healthcare team to identify and treat any problems early.

Keep this information document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

## Acknowledgements

### Reviewer

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### Illustrator

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