

ERCP

The Procedure Explained

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Document Number: STHK1129
Version: 9.1
Review Date: 01 / 01 / 2022

Introduction

You have been advised by your GP or hospital doctor to have an investigation known as an ERCP.

This procedure requires your formal consent and this booklet has been written to enable you to make an informed decision in relation to agreeing to the investigation.

If however there is anything you do not understand or wish to discuss further you will have an opportunity to speak to a health care professional before the procedure.

If you are unable to keep your appointment, please notify the department as soon as possible they will be able to arrange another date and time for you.

What is an ERCP?

An endoscopic retrograde cholangiopancreatography (ERCP) is an examination of the gallbladder, pancreas, liver, and the ducts (tubes) that drain these organs.

Small ducts from the gallbladder and pancreas flow into a larger duct that drains bile from the liver (common bile duct).

The common bile duct drains into the small intestine through an opening called an ampulla.

The test is carried out using an endoscope which is a flexible tube with a camera on the end.

Using this, the endoscopist will find the opening at the end of your bile duct and with the help of x-ray pictures will carry out the procedure.

These x-ray pictures will be stored for your records.

Notes

Frequently Asked Questions (fAQs)

Hopefully this leaflet has answered all your questions.

Our website does have further information and includes a number of questions asked by other patients.

The endoscope has a channel through which wires and various small tools can be passed allowing treatment to be carried out if a gallstone is found to be stuck in the bile duct, or a narrowing is seen.

A small cut (sphincterotomy) may need to be made during the procedure to help removal of a stone or a drainage tube put in to help the flow of bile.

During the investigation, the doctor may need to take some tissue samples (biopsies) from the lining of your upper digestive tract for analysis: this is painless.

The samples will be retained.

Photographs may also be taken for your records.

We will make the investigation as comfortable as possible for you and most patients have sedation injected into a vein for this procedure.

Reasons for and Benefits of the Procedure

Why do I need to have an ERCP?

This procedure is usually only carried out after you have had other tests that show that you have a problem with your bile duct.

There are a number of reasons that people undergo this test.

Commonly, it is carried out before or after keyhole gallbladder surgery if it is thought that there may be gallstones blocking the ducts.

What are the alternatives?

There are other investigations that look at the bile ducts in detail such as Endoscopic ultrasound and MRCP.

You may have already had one of these tests.

The disadvantage of these tests is they are not able to bypass any blockages, allow biopsies or remove stones.

Although ERCP carries risks (see below), it is only carried out when doctors have carefully balanced the risks of doing the test compared with doing any other test or operation, and the risks of doing nothing.

Preparation

Pre-assessment

You may be asked to attend the hospital for a pre-assessment prior to the procedure and to have some blood tests taken.

These are to ensure the procedure can safely take place.

Please let us know before your procedure if you have a pacemaker (PPM) or implanted defibrillator (ICD) and bring the any details about your device with you on the day of the test.

Eating and Drinking

It is necessary to have clear views and for this the stomach must be empty.

Therefore do not have anything to eat or drink for at least 6 hours before the test.

What about my medication?

Your routine medication should be taken.

It would be helpful to bring a list of your current medications.

<p>Continue usual basal rates and start to bolus once oral intake has resumed</p>	<p>Continue usual basal rates and start to bolus once oral intake has resumed</p>	<p>Continue as normal</p>	<p>Insulin pump</p>
<p>You should resume taking your normal tablets the morning after the procedure. However, your blood glucose may be higher than usual for a day or so. If you have any problems or require further advice contact your diabetes specialist. If you are a St Helens resident, contact 01744 646200 - Option 5 for emergency advice (available 0800-2200 weekdays and 0800-1600 weekends and bank holidays).</p>			

Insulin	Day before the procedure	Day of Procedure:	
		Morning Appointment	Afternoon Appointment
3,4, or 5 injections daily (eg. an injection of mixed insulin 3 times a day or 3 meal time injections of short acting insulin and once or twice daily background)	No dose change	Omit your morning dose of short acting insulin if no breakfast is eaten. If you normally take a long acting basal insulin in the morning you should take 80% of your normal dose. If you normally take a pre-mixed insulin the dose should be halved. Omit your lunchtime dose. Resume your normal insulin with your evening meal.	Take usual morning insulin doses Omit lunchtime dose Your blood glucose will be checked on admission Resume your normal insulin with your evening meal

Diabetics

If you are a diabetic controlled on insulin or medication please ensure the endoscopy department is aware so that the appointment can be made at the beginning of the list.

Please see guidelines printed in the back of the book.

Anticoagulants/Anti-platelets and Allergies

Please telephone the unit (01744 646231 between 9-10am or 2-3pm) if you are taking any anticoagulants (blood thinning medication) e.g. warfarin, dabigatran, apixaban or rivaroxaban or edoxaban.

Please stop Clopidogrel / Ticagrelor for 7 days prior to this test. If you have had a coronary stent inserted in the past 12 months please contact the unit.

What happens when I arrive?

You should expect to be in the department for most of the day.

The department also looks after emergencies and these can take priority over our outpatient lists.

You will be met by a health care professional who will ask you a few questions, one of which concerns your arrangements for getting home.

You will also be able to ask further questions about the investigation.

You will have a brief medical assessment when a qualified endoscopy nurse will ask you some questions regarding your medical health to confirm that you are fit to undergo the investigation.

If you are diabetic, your blood glucose level will also be recorded.

The nurse will ensure you understand the procedure and discuss any further concerns or questions you may have.

As you may be having sedation they may insert a small cannula (small plastic tube) in your arm or hand through which sedation will be administered later.

You will be asked to change into a hospital gown. You may wish to bring a dressing gown and slippers with you.

Sedation and Analgesia

Intravenous sedation and analgesia

Sedative and a painkiller (analgesic) drugs are routinely administered into a vein in your hand or arm for this procedure.

You may also have some local anaesthetic throat spray. The drugs will make you lightly drowsy and relaxed but not unconscious.

You will be in a state called co-operative sedation. This means that, although drowsy, you will still hear what is said to you and therefore will be able to follow simple instructions during the investigation. Sedation makes it unlikely that you will remember anything about the examination.

Whilst you are sedated, we will monitor your breathing and heart rate so changes will be noted and dealt with accordingly. For this reason you will be connected by a finger probe to a pulse oximeter which measures your oxygen levels and heart rate during the procedure. Your blood pressure may also be recorded.

If you have sedation you will not be permitted to drive home or use public transport alone, so you must arrange for a family member or friend to collect you.

If taken three times a day – omit your lunchtime dose	If taken once a day in the morning – omit this dose If taken twice a day omit both doses	Take as normal
If taken three times a day omit your lunchtime dose	If taken once a day in the morning – omit this dose If taken twice a day – omit the morning dose	Take as normal
	Take as normal	Take as normal
	Sulphonylureas (eg. glibenclamide, glipizide, gliclazide/ gliclazide MR, glimepiride, gliquidone)	Thiazolidinediones (pioglitazone)

Medication	Day before the procedure	Day of Procedure:	
		Morning Appointment	Afternoon Appointment
Acarbose	Take as normal	Omit morning dose if you have been told to fast from midnight	Take your morning dose if eating breakfast. Do not take your lunchtime dose
Meglitinide (eg. repaglinide or nateglinide)	Take as normal	Omit morning dose if you have been told to fast from midnight	Take your morning dose if eating breakfast. Do not take your lunchtime dose
Metformin / Glucophage MR	Take as normal	If taken once a day – do not stop If taken twice a day – do not stop	If taken once a day do not stop If taken twice a day do not stop

If you live alone, arrange for someone to stay with you, or if possible, arrange to stay with family or a friend for about 12 hours.

Please note as you have had sedation you must not drive, take alcohol, operate heavy machinery or sign any legally binding documents for 24 hours following the procedure and you will need someone to accompany you home.

The ERCP procedure

You will be shown to the procedure room where you will be introduced to the nursing staff.

You will be asked to sit on the trolley in the room, at which point you will be asked to remove any dentures and your throat will be sprayed with local anaesthetic throat spray.

You will quickly notice numbness to your tongue and back of throat.

Following this you will be instructed how to lie down. You start the test lying in the recovery position with your left shoulder and arm behind you. This makes it easier for us to roll you onto your front.

During the test you will be kept as comfortable as possible however you may experience some fullness, the need to belch or mild discomfort.

This is quite normal as some air needs to be put in to during the test.

Once you are in this position a cannula (tube) will be inserted into your vein through which you will be given a dose of antibiotic as well as some sedation and analgesia. A probe will be attached to your finger to monitor your oxygen levels and pulse.

A small plastic mouth guard will be inserted between your teeth or gums just prior to you being made sleepy.

Once you are comfortable the doctor will place the tip of the small tube in your mouth toward the back of your tongue and may ask you to swallow.

You will be able to breathe normally and the nurse will suction any extra saliva or mucus from your mouth during the test if necessary.

If you have gallstones which need to be removed you will experience some discomfort near the end of the procedure while they are pulled out.

Most patients however are actually comfortable enough to fall asleep during the examination.

During the procedure samples may be taken from the lining of your digestive tract.

The Risks and Discomforts of the Procedure

ERCP is classified as an invasive procedure and usually involves some kind of treatment being carried out through the endoscope.

It therefore has a number of possible complications.

These do not happen very frequently.

However, it is important we draw your attention to them so you can make your own decision.

The doctor who has requested the test as well as the doctor who will be carrying out the test, will have carefully considered the risks compared to the benefits of you having this test.

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Frequent risks

- sore throat, abdominal discomfort (2 people in every 100)
- the procedure cannot be completed (1 person in every 10)

Serious risks

Uncommon (1 person in every 100–1000):

- Complications of over-sedation
- Aspiration pneumonia (1 person in every 500)
- Adverse reactions to drugs or equipment
- Significant bleeding (1 person in every 50), requiring a blood transfusion or occasionally a special X-ray procedure of surgery.
- Pancreatitis (1-2 people in every 100), requiring admission for treatment. If severe it can be fatal (1 person in every 500)
- Infection (Cholangitis) (1 person in every 100), requiring admission.
- Perforation (1 person in every 200), requiring admission and possible surgery. It may occasionally be fatal.
- Death (1 person in every 200)

Rare (1 person in every 1000-10,000):

- Dental damage
- Cardiac irregularities including heart attack and stroke, requiring admission.

After the procedure

You will be allowed to rest for as long as is necessary.

Your blood pressure and heart rate will be recorded and if you are diabetic, your blood glucose will be monitored.

Should you have underlying difficulties or if your oxygen levels were low during the procedure, we will continue to monitor your breathing and can administer additional oxygen.

Once you have recovered from the initial effects of any sedation (which normally takes 30 minutes) you will be offered a snack and moved into a comfortable chair.

Before you leave the department, the nurse or doctor will explain the findings and any medication or further investigations required.

They will also inform you if you require further appointments.

Since sedation can make you forgetful it is a good idea to have a member of your family or a friend with you when you are given this information.

If the person collecting you leaves the department, the nursing staff will telephone them when you are ready for discharge.

You will be given a copy of our aftercare leaflet.

If you wish you can take home a copy of the endoscopy report and a copy will also be sent to your GP.

Occasionally some patients have to stay overnight after their procedure.

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General points to remember

1. If you are unable to keep either pre-assessment or procedure appointment please notify the endoscopy unit as soon as possible.
2. Please follow carefully the instructions on preparation, medications and pacemakers.
3. It is our aim for you to be seen as soon as possible after your appointment time. However, there may be delays as emergencies can occur and these patients are given priority.
4. If you are having sedation someone needs to be available to collect you.
5. The hospital cannot accept any responsibility for the loss or damage to personal property during your time on these premises

Guidelines for people with diabetes undergoing Gastroscopy or OGD

Instructions for your appointment

Please check your appointment information. Your appointment should be early morning. If not please contact the Endoscopy Unit on 0151 430 1293 for an alternative appointment time.

How to adjust Diabetes Treatment

Preparing for an ERCP will involve a brief period of fasting. This means your diabetes medications may need to be adjusted.

If you take medications to control Diabetes please follow the instructions in the table on page 14-19:

'How to adjust my non-insulin diabetes medication before an ERCP'

If you take insulin to control Diabetes please follow the instructions in the table on page 20-21:

'How to adjust my insulin before an ERCP'

Please check the tables carefully. If you have any problems or require further advice contact your diabetes specialist.

If you are a St Helens resident, contact 01744 646200, select option 5 for emergency advice (available 0800-2200 weekdays and 0800-1600 weekends and bank holidays).

Hypoglycemia Advice

If you have any symptoms of a low blood sugar such as sweating, dizziness, blurred vision or shaking please test your blood sugar if you are able to do so.

If your blood sugar is less than 6mmol/L take 4 glucose tablets or 150ml of the sugary drink.

Please tell staff at the hospital that you have done this.

- Following your procedure you will be advised when it is safe to eat and drink
- If you are eating and drinking normally you should resume taking your normal tablets

Your blood glucose levels may be higher than usual for a day or so.

Eating and Drinking Whilst Preparing for a Gastroscopy

On the day of the procedure

If your procedure is in the **morning**:

- Do not eat any food after midnight

Drink clear fluids such as black tea or coffee, sugar-free squash or water up to 5am

If your procedure is in the **afternoon**:

- Eat breakfast before 7am. Do not eat any food after this

Drink clear fluids such as black tea or coffee, sugar-free squash or water up to 10am

Important things to bring to hospital with you

- Glucose tablets or a sugary drink
- Blood glucose testing equipment (if you usually monitor your blood glucose)
- The tablets and insulin you usually take for your diabetes