

Endoscopic Retrograde Cholangiopancreatography (ERCP)

Information for patients

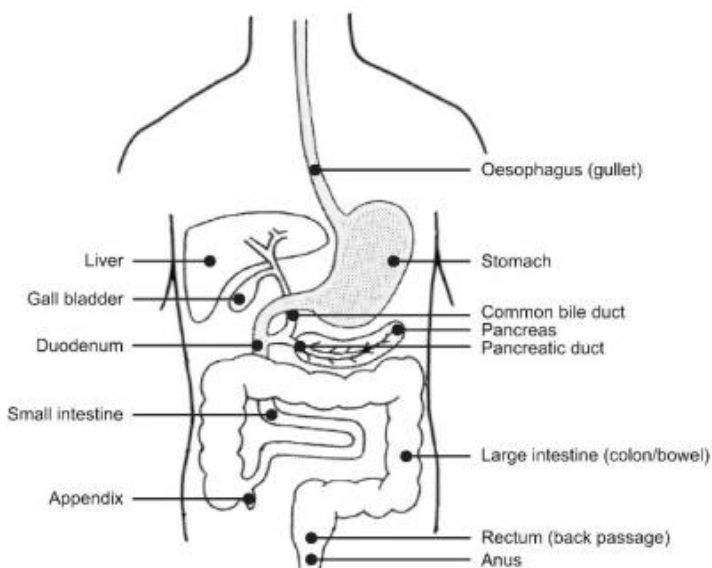
This leaflet can be made available in other formats including **large print**, CD and Braille and in languages other than English, upon request.

You have been advised by your doctor to have an Endoscopic Retrograde Cholangiopancreatography (ERCP) to help find the cause of your symptoms.

This leaflet tells you how to prepare for your ERCP and will help you to understand what will happen during and after your procedure.

What is an ERCP?

An ERCP is an examination of your pancreatic and bile ducts (drainage tubes from the liver) using an endoscope (a thin, flexible tube) and x-ray. A special dye is injected down the endoscope so your pancreatic and bile ducts show up on x-ray. (See diagram below).



An endoscope will be passed through your mouth and guided into your stomach and then into your duodenum (small intestine). Air will be pumped into your stomach and duodenum to allow your doctor to get a better view.

The endoscope has a bright light and camera at the end that passes back a picture of the inside of your stomach and duodenum on to a monitor. Your doctor can then check if any disease, blockages or abnormalities (unusual areas) are present.

Biopsies (small pieces of tissue) or brushings (a small brush to collect cells) can also be taken painlessly using instruments passed through the endoscope. Any biopsies or brushings taken will be sent to a laboratory for examination.

An ERCP may be useful in diagnosing and treating:

- any narrowing of your pancreatic or bile duct
- gallstones which are trapped in the main bile duct
- blockage of the pancreatic or bile duct
- jaundice, which turns the skin yellow; may cause itchiness and turns the urine dark
- undiagnosed upper abdominal pain
- cancer of the bile ducts or pancreas
- pancreatitis (inflammation of the pancreas).

If the test shows gallstones, or any narrowing of your pancreatic or bile ducts, these can usually be treated during your ERCP procedure. Any narrowing of the ducts may be dilated (widened) or a stent (small tube) may be inserted to keep them patent (open).

Are there any other tests that can be done instead of an ERCP?

You do not have to have any examination or tests you do not want, but the doctor who has requested the procedure has advised this is best for you.

However, if you do not want this procedure an MRI scan may also help to find the cause of certain symptoms. This is not always appropriate as it does not allow treatment of any abnormality detected.

Who will do my ERCP?

Your ERCP will be carried out by a doctor who has specialist skills.

What can I expect to happen?

Your ERCP will be performed at the University Hospital of North Tees.

If your appointment is in the morning:

You must stop eating 6 hours before your Endoscopy and have nothing to drink after 7.00am.

If your appointment is in the afternoon:

You must stop eating at 7.00am. You should continue to have at least 250ml - 300mls (an average size teacup full) of clear fluids, for example, water, tea or coffee without milk, every hour up to 11.00am, to prevent you becoming dehydrated.

Take your normal medication, with a small amount of water, at your usual time.

If you are taking Warfarin or Clopidogrel or any other blood thinning medication please inform your nurse.

If you are diabetic do not take insulin when fasting (not eating) before your ERCP. Please ask your nurse for advice.

What are the risks and possible complications of an ERCP procedure?

ERCP is a very accurate examination but occasionally a problem may be missed. It is a safe procedure but does have some risks and possible complications.

These will be discussed fully before you consent to the procedure. They must be compared to the benefits of having the procedure carried out. The doctor who advised you should have this procedure will have considered this.

The most common risks and complications are:

- **discomfort.** You may feel some discomfort during the procedure; we try to keep this to a minimum. A nurse will be with you throughout the procedure and if you show any signs of being uncomfortable steps will be taken to relieve this.
- **feeling bloated and sore throat.** You may feel bloated for a few hours afterwards and have a sore throat for 24 - 48 hours.
- **damage to teeth or bridge-work.** The endoscope can occasionally cause damage to teeth or bridge-work. This is rare, and a mouth-guard is used to lessen the risk.
- **pancreatitis (mild to severe inflammation of the pancreas).** This can be caused by a reaction to the x-ray dye that is passed into your bile and pancreatic ducts. This can happen to 5 patients in every 100.¹

It can happen within 24 - 48 hours of an ERCP procedure. If you feel unwell, feverish, have upper abdominal pain or discomfort **you must** contact the hospital. (See contact numbers). With treatment it usually settles in a few days.

- **bleeding.** If any bleeding occurs during your ERCP steps will be taken to stop it. This can happen to 1 patient in every 100.¹ If this happens you may need a blood transfusion or, rarely, an operation.
- **infection.** You may be given antibiotics before your ERCP. If a blockage of your bile or pancreatic duct is found and released the fluid could be infected. This can happen to 1 patient in every 100.¹

You may be given antibiotic treatment after your ERCP if your doctor thinks it is needed. If you feel unwell, feverish or feel sick **you must** contact the hospital or your GP. (See contact numbers)

- **perforation (hole).** Perforation in the intestinal wall or stomach. This can happen to 1 patient in every 250.¹ If this happens you may need an operation to repair it.
- **adverse effects of conscious sedation (a drug which should make you feel comfortable and relaxed).** This can occasionally cause problems with your breathing, heart rate and blood pressure. Careful monitoring (checking) by a fully trained endoscopy nurse will make sure they are identified and treated quickly.
- **aspiration.** If you are sedated and your stomach contains food or drink, it can leak into your lungs, affect your breathing and cause an infection. This is one of the reasons why you must not eat or drink for 6 hours before this procedure.
- **radiation.** Risks from x-rays are very small with the dosages used in this procedure. The benefits of this test outweigh any small radiation risk.

- **unable to complete ERCP.** Very occasionally your doctor may not be able to access (get into) your common bile duct or pancreatic duct during your ERCP.

You may need to have a different x-ray procedure called a percutaneous transhepatic cholangiogram (PTC); your doctor will discuss this in more detail with you. This may need to be arranged on a different day.

- **other treatments.** If any of the other treatments described earlier are needed the risks can increase.
- **procedure related mortality (death).** This can happen to 1 patient in every 250 undergoing this procedure.¹

After your ERCP your blood pressure, pulse and discomfort (or pain level) will be checked regularly.

What will I have to do to prepare for my ERCP as an outpatient?

If you are an outpatient you will be given a pre assessment appointment to come and see a specialist nurse 1- 2 days before your ERCP procedure. They will explain the procedure and discuss the risks and possible complications.

You will be asked about your general health and your blood pressure and pulse will be checked. Please remember to bring with you a list of all your tablets, medicines and /or inhalers.

Your nurse will tell you if you need to stop taking any of your medications before your ERCP. You may be given some tablets to take before your ERCP if it is decided that you need them.

Samples of your blood will be taken for testing in a laboratory and you may be sent for an ECG-electrocardiograph (heart tracing). This will be explained by your specialist nurse.

One of your doctors or a specialist nurse will explain the procedure and discuss the risks and possible complications. Please let him or her know of any other tests you may have had and if you are allergic to, or have ever had any reactions to, tablets, medicines or x-ray.

Tests. Samples of your blood will be taken for testing in a laboratory and you may be sent for an ECG - electrocardiograph (heart tracing).

On the day of your appointment

Your stomach and duodenum must be empty to allow your doctor to get a clear view and make sure no areas are hidden. You must stop eating and drinking 6 hours before your ERCP or your procedure may have to be rearranged.

You will be allowed to take your normal medication with a small amount of water on the morning of your ERCP. You may also be given some tablets to take before your ERCP if your doctor decides you need them. You will need to take these at 7.30am. This will be explained by your doctor or specialist nurse.

Occasionally it may be necessary for you to stay in hospital after an ERCP. Please bring any items you may need for an overnight stay in hospital, for example, night clothes, dressing gown and slippers, toiletries and any medication you are taking.

When you arrive at the Endoscopy Unit you will be seen by a nurse and given an approximate time when you should be ready to go home which could be several hours, or you may have to stay all day. Anyone wishing to wait at the hospital for you to be discharged will be advised where they can wait.

What will I have to do to prepare for my ERCP as an inpatient?

One of your doctors or nurses will explain the procedure and discuss the risks and possible complications. Please let him or her know of any other tests you may have had and if you are allergic to, or have ever had any reactions to, tablets, medicines or x-ray.

Samples of your blood will be taken for testing in a laboratory and you may be sent for an ECG-electrocardiograph (heart tracing).

Your stomach and duodenum must be empty to allow your doctor to get a clear view and make sure no areas are hidden. You must stop eating and drinking 6 hours before your ERCP or your procedure may have to be rearranged.

You will be allowed to take your normal medication with a small amount of water on the morning of your ERCP. You may be given some tablets to take before your ERCP if your doctor decides you need them.

When it is time for your examination you will be taken from your ward, usually in a chair or on a trolley, to the Endoscopy Unit. If needed, one of the ward nurses will go with you and hand over your care to the nurses in the Endoscopy Unit.

On the day of your ERCP:

- do not smoke
- long hair should be tied back for comfort
- nail varnish **must not** be worn
- make-up may need to be removed
- avoid bringing valuables with you
- only a wedding ring should be worn
- wear loose fitting clothing.

What will happen during the procedure?

Before the procedure begins, if you have any false teeth you will be asked to remove them. You will then be asked to lie down on a trolley on your tummy. Your pulse and oxygen levels will be checked before and during the procedure by putting a small plastic clip on to one of your fingers.

You will be given extra oxygen to breathe through a soft plastic tube on your nose. A blood pressure cuff will be placed on your lower leg to allow your blood pressure to be monitored during your procedure.

Sticky pads will be placed on your back to monitor your heart rate during your procedure. A small plastic guard will be put gently between your teeth to protect them.

Do not worry, this is all routine and is not painful. A nurse will stay with you during your ERCP and make sure you are comfortable.

Your throat will be sprayed with local anaesthetic. You will then be given a sedative and painkilling drug to make you feel comfortable and relaxed before the procedure starts.

This involves injecting medication (drugs) through a cannula (a fine tube) inserted into a vein in the back of your hand or arm using a small fine needle. This is called conscious sedation. You will still be awake but will feel more comfortable and relaxed.

When the sedation has taken effect your doctor will pass the endoscope through your mouth, into your stomach and into your duodenum. Air will be passed through the tube to inflate your stomach and duodenum so your doctor can see all parts. This can cause "windy" discomfort.

During the procedure any extra saliva will be cleared from your mouth using a fine suction tube.

A thin plastic tube is then passed down the endoscope and is directed into either your common bile duct or pancreatic duct. The tube allows a special liquid dye to be injected into these ducts.

X-rays are then taken of the ducts. Any blockage, narrowing or widening of the duct can be seen on the monitor. If gallstones are found it may be possible for your doctor to remove them using miniature instruments passed through the endoscope.

It is possible to widen narrowed ducts using a cut and to place stents in these areas to keep them open.

A biopsy or brushing may be taken during your procedure and sent for testing in a laboratory. The procedure usually takes about 30 - 60 minutes. When the procedure is over the air is released and the endoscope is removed quickly and easily.

We routinely take photographs or videos of your insides during this procedure. These are used to help in your investigations and treatment.

What happens to the pictures taken during my procedure?

The pictures taken during your examination will be kept as part of your healthcare record. The pictures may sometimes be used anonymously for training or research.

If hospital staff want to use any of your pictures for any other purpose, for example, in an article to be published (printed) in a professional magazine or book, they will ask your permission before this happens.

Will it be painful?

No, not painful, but you may feel some discomfort. We try to keep this to a minimum. You can ask for the procedure to stop at any point if you wish.

What will happen after the procedure?

You will be taken on the trolley to a recovery area where you will be able to rest. Your pulse, blood pressure and oxygen levels will be checked regularly after your procedure. If you are an inpatient you will be returned to the ward.

With your consent you may be given a suppository into your rectum. This will not make you go to the toilet but is to help reduce the risk of developing pancreatitis (inflammation of the pancreas).

You will have discussed this with your specialist nurse at your pre-assessment appointment.

Your nurse will tell you when you can start to eat and drink.

If you can go home **you must** have a responsible adult to take you home and stay with you for the first 24 - 36 hours after your sedation. This is because sedation may make you feel tired and will affect your judgement.

Your nurse will tell you how long you need to follow this advice.

For the first 24 - 36 hours after sedation you:

- **must not** go back to work
- **must not** drive a car, ride a bicycle or motorcycle. It is an offence to drive while unfit to do so because of drugs and it will probably invalidate your insurance policy.
- **must not** supervise children
- **must not** make any important decisions or sign any legal documents
- **must not** operate machinery or electrical appliances
- **must not** go near open flames or sources of high heat
- **must not** drink alcohol
- **must not** take sleeping tablets, tranquillisers or any drugs other than those prescribed to you by the hospital or your GP
- **must not** lock the toilet or bathroom door in case you need any help
- **should not** smoke.

How will I feel after my ERCP?

You may:

- have a sore throat for the first 24 - 48 hours feel bloated. This is due to the air put in your stomach and duodenum during your procedure. This usually settles within a few hours.
- feel tired due to the effect of sedation. Do not worry, relax quietly.
- have a light meal on the evening after your procedure, for example, soup and sweet. Do not have a heavy meal as it could make you sick.

You must tell one of your ward nurses **immediately** or contact the Endoscopy Unit **immediately** if you:

- have severe pain in your neck, chest or abdomen (tummy)
- start vomiting (being sick) or develop nausea (feeling sick)
- your temperature is 38°C (100.4°F) or higher.

If the Endoscopy unit is closed and you have an urgent problem up to 48 hours after your ERCP you should contact the Emergency Department (see contact numbers).

When will I be told about the outcome of my procedure?

If you are an **outpatient** you will be given a copy of your report before you leave the Unit. Your nurse will explain the results to you. With the sedation you may not be able to remember everything you have been told so with your permission, it may be helpful if a relative or friend could be with you when you are told your outcome.

You will be given a discharge information leaflet. Your GP will be sent the results within 24 hours. If the doctor who has done your ERCP feels it is necessary you may be given some medication and/or an outpatient appointment.

If you are an **inpatient** the outcome of your procedure will be discussed with you on the ward by the doctor responsible for your care.

If you had any biopsies or brushings taken and sent to a laboratory for further examination you might have to wait for up to 6 weeks for the results. Your GP will also be sent a copy of these results. The biopsy or brushings results will not be available from the Endoscopy Unit.

Contact numbers

If you need further advice, or have any problems, please contact the ward or your Consultant's secretary at either:

University Hospital of North Tees

Endoscopy Unit

Telephone: 01642 624387

Monday and Wednesday, 8.00am - 7.00pm

Tuesday, Thursday and Friday, 8.00am – 9.30pm

Saturday, 8.00am – 2.00pm

Emergency Department

Telephone: 01642 382899

24 hours a day, 7 days a week

Further information is available from:

NHS Choices

Telephone: 111 (when it is less urgent than 999)

Calls to this number are free from landlines and mobile phones or via the website at www.nhs.uk

If you have any worries or concerns you should contact your GP during normal surgery hours. Outside these hours you should contact your GP surgery for the Out of Hours Service number.

Reference

1. 'Are we meeting the standards set for endoscopy? Results of a large scale prospective survey of endoscopic retrograde cholangio-pancreatograph practice'. Gut 2007; **56**: 821-829.doi;10.1136/gut.2006.097543

This leaflet has been produced in partnership with patients and carers. All patient leaflets are regularly reviewed, and any suggestions you have as to how it may be improved are extremely valuable. Please write to the Quality Assurance Team, University Hospital of North Tees or email: patientinformation@nth.nhs.uk

Comments, Concerns, Compliments or Complaints

We are continually trying to improve the services we provide.

We want to know what we're doing well or if there's anything which we can improve, that's why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as possible. If you would like to contact or request a copy of our PET leaflet, please contact:

telephone: 01642 624719

Monday – Friday, 9.00am – 4.00pm

Messages can be left on the answering machine and will be picked up throughout the day.

freephone: 0800 092 0084

Email: patientexperience@nth.nhs.uk

Out of hours if you wish to speak to a senior member of Trust staff, please contact the hospital switchboard who will bleep the appropriate person.

telephone: 01642 617617

24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person Monday – Friday, 1.30pm – 4.30pm. The office is based on the ground floor at the University Hospital of North Tees.

Data Protection and use of patient information

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in accordance with the Data Protection Legislation (General Data Protection Regulations and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff respect this policy and confidentiality is adhered to at all times. If you require further information please contact the Information Governance Team.

telephone: 01642 383551 or email: information.governance@nth.nhs.uk

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