Having an ERCP

Information for patients, relatives and carers

Endoscopy Unit

ℹ️ For more information, please contact:

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Caring with pride
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This leaflet contains information about ERCP (Endoscopic Retrograde Cholangio-Pancreatography). It explains a little about what will happen before, during and after the procedure and tries to answer some of the questions you may have.

If you do not fully understand anything about the procedure, please ask. The doctors and nurses are there to help you. They will always make time to listen to you and answer your questions.

What is an ERCP?

ERCP stands for Endoscopic Retrograde Cholangio-Pancreatography. It is a way of examining the tubes that drain bile from the liver and pancreas into the small bowel. Bile and pancreatic fluid are used by the body to help digest fats and proteins (bile ducts, pancreatic ducts and gall bladder: see diagram in the section “what happens during the ERCP”).

The procedure may be diagnostic or therapeutic:

Diagnostic ERCP gives information about the bile ducts and the pancreatic ducts. It may show for example, narrowing, obstruction or gall stones

Therapeutic ERCP means the endoscopist may need to undertake minor operations during the procedure such as a releasing cut to the bottom of the duct (known as a sphincterotomy), a stretch of the bile duct (ampulloplasty), stent insertion or gallstone removal.
How is ERCP carried out?

ERCP is done with an endoscope. This is a long, slim, flexible instrument, which has lenses and a light at its tip. It allows the doctor to view the bile and pancreatic ducts on a television screen. To enable the doctor to take x-ray pictures of the ducts, a thin tube (cannula) is pushed out of the end of the endoscope into the bile or pancreatic duct. Dye is injected through the tube and x-rays of the nearby tissues are taken. If necessary, instruments can be passed down the endoscope to perform a sphincterotomy or ampulloplasty, to remove gallstones or to bypass any blockage, photographs, biopsies and brushings (cells taken for analysis) may also be taken at this time.
What happens during the ERCP?

The endoscope is passed through your mouth, down into your stomach and into your small intestine as shown in the diagram.

Access into the ducts is then obtained using a special cannula and wire. Dye is then injected into the bile or pancreatic ducts and x-rays taken. We may then perform the following procedures:

**Sphincterotomy:** An electric current is passed through a special wire to cut into the sphincter (the sphincter acts like a valve) at the bottom of the bile or pancreatic ducts to widen it. The cut releases the sphincter and then allows us to insert a stent or remove gallstones.

**Ampullaoplasty:** Here a balloon is passed into the bile duct so that it lies across the sphincter. The balloon is then inflated and so disrupts the sphincter and allows us then to insert a stent or remove gallstones.
**Stent Insertion:** A stent is a very small tube that is passed down through the endoscope into the bile or pancreatic duct. This is used to allow the bile or pancreatic juices to flow past an obstruction. You will not be aware of the tube, which usually stays in place long-term. If it becomes blocked, it may be necessary to replace the tube some months later. A stent may also be placed into a duct as a short term measure, to prevent complication or to allow drainage until the test can be repeated.

**Gallstone removal:** If there are gallstones in the bile ducts, these can either be grabbed and crushed using a snare or drawn out using a balloon. A sphincterotomy or ampulloplasty has to be performed first to allow the stone or its fragments to be drawn out of the bile duct into the intestine across the sphincter. Once in the intestine the stones pass naturally.

At the end of the procedure, the endoscope is removed and the examination is complete. The procedure takes between 15 minutes and an hour. The dye used to obtain x-rays passes out of your body harmlessly. At this stage you may be given a medicine into your bottom (a suppository) of an anti-inflammatory medicine (for example diclofenac or indomethacin). This is designed to reduce the risk of a complication known as pancreatitis (see the next section for more information). The nurses will warn you about this before the procedure.
What if I have diabetes?

We need to know if you have diabetes. If you have tablet or insulin treated diabetes you may require additional advice about your preparation for the procedure and how you take your medication.

If you have not received any specific diabetes information with this pack please contact one of the following:

For York Hospital
Endoscopy Unit        Tel: 01904 726694
Pre Assessment Nurses Tel: 01904 721307

For Scarborough Hospital
Automated helpline    Tel: 01723 342905
What if I am on a blood thinning medication?

You will need to inform us if you take any of the following blood thinning medications. We will need to advise you about whether or not this should be continued for the procedure:

- Warfarin
- Rivaroxaban
- Ticagrelor
- Apixaban
- Clopidogrel
- Prasugrel
- Dabigatran

Although **Aspirin** is a medication which thins the blood it is safe to continue and we therefore do not need to know about this. If you are taking both aspirin and **dipyridamole** then you will need to inform us and usually you will stop the dipyridamole.

Continue any other medication as usual.

If you are being treated in York Hospital, please contact the pre Assessment Nurses on 01904 721307

If you are being treated in Scarborough Hospital, you can contact our automated helpline on 01723 342905

Should I eat and drink before I arrive?

To allow a clear view, your stomach and small intestine must be empty. You will be asked not to eat or drink for at least six hours before the procedure. If your examination is taking place in the afternoon, you may have a light breakfast before 8am.
What happens when I arrive on the Endoscopy Unit?

Please bring with you:

- Your completed admission form (if you have been given one)
- Your usual medication
- Nightwear, slippers and toiletries
- Reading material

When you arrive on the Unit, the nurses will introduce themselves to you and explain what will happen to you during your stay. A nurse or doctor will ask you about your present medicines, previous health problems and any allergies you may have. You should not hesitate to ask the nurse or doctor any questions you may have about the procedure.

You will also be asked to sign a consent form saying that you:

- Fully understand the procedure
- Fully understand the risks and benefits
- Are aware of the alternatives and
- Agree to have the examination

Please ask if there is anything you do not fully understand about your treatment or if there is anything you are uncertain about.

The doctor who performs the procedure will be available and will ensure that you fully understand the procedure and wish to proceed.
What happens before my ERCP?

Before your ERCP you will be asked to change into a hospital gown and remove any false teeth, contact lenses, jewellery or other metal objects, which might interfere with the x-rays. You will have a clip (pulse oximeter) attached to your finger to help to monitor your condition and small plastic tubes placed just inside your nostrils so that you can be given oxygen. A needle will be placed in a vein to allow drugs to be given to you. You will be laid on the x-ray trolley on your left side with your left arm behind your back. This can sometimes be uncomfortable but we will help you with it and it will not be for long. We will then roll you onto your stomach during the procedure to get better X-Ray pictures. A nurse will be at the head of the trolley throughout the procedure.

What kind of sedation will I have?

Just before the procedure you will be given a strong painkiller and a sedative. These medicines will make you drowsy and are intended to make the procedure comfortable. Most patients do not remember having the test done. You will also be given a drug that will relax your intestine.
What are the risks in having an ERCP?

ERCP is usually a very safe procedure. Great care is taken to reduce risk of complications during ERCP.

**Pancreatitis:** Inflammation of the pancreas. This may be relatively mild and involves only mild abdominal pain. In a small number of cases (five out of 100 patients) it may be more severe and requires you to stay in hospital for several days until the pancreatitis resolves. Only very rarely is pancreatitis severe enough to require an operation.

**Perforation:** A hole (perforation) may be made in the wall of the duodenum (small bowel), either as a result of the sphincterotomy or due to a tear made by the endoscope. This happens in less than one in 750 patients. It might require surgery to put it right and may occasionally be fatal.

**Bleeding:** Sphincterotomy and ampulloploasty can be associated with the risk of bleeding in a small number of patients (two out of 100 patients). Whilst this often settles spontaneously, it may require a blood transfusion or in severe cases an operation may be required to stop the bleeding. Sometimes the bleeding can occur up to 10 days after the ERCP.
**Cholangitis:** This is Infection of the bile ducts. It may occur after ERCP and requires treatment with antibiotics. It occurs in less than one in 100 patients and may be more common if a stent has been put in or if there is a gallstone which cannot be removed endoscopically.

**Pneumonia:** Very frail and / or elderly patients can develop a pneumonia from stomach juices getting into the lungs, although this is rare and occurs in approximately one in 500 patients.

Whilst complications associated with ERCP are rare, a small number of deaths have occurred.

**Other:** Failed entry into the bile ducts requiring repeat procedure or alternative approaches, mild discomfort in the abdomen and a sore throat, risk of damage to dental work and loose teeth becoming dislodged, small risk of depression of breathing due to the sedative.

Occasionally at ERCP it is not possible to gain entry to the bile duct (six out of 100 cases). If the ERCP is unsuccessful, the doctor will talk to you afterwards about possible alternative approaches.

If any complications require urgent treatment, a longer stay and an operation may be necessary. In most cases the complication is resolved within a few days but in two out of 100 patients the complication may be severe. Here a prolonged illness may result.
What are the benefits of having ERCP?

Having an ERCP often avoids the need for surgery and gives important diagnostic information. In comparison with surgery, the recovery time is quicker and the risk of complications much lower.

What are the alternatives to an ERCP?

Surgery can be performed to clear blockages. Ultrasound, CT (Computerised Tomography) or MRI (Magnetic Resonance Imaging) scans can provide some information, but are only diagnostic and do not offer a form of treatment.

Percutaneous trans hepatic cholangiogram (PTC), performed under x-ray guidance, is the only alternative which allows therapeutic intervention (treatment). During this procedure the bile ducts are approached through the skin and liver.
What happens after the ERCP?

You will feel drowsy. The nurse will advise you when you can eat and drink. Your doctor will explain the results of the examination and what treatment you have had.

In some cases patients may need to stay in hospital overnight for observation and therefore a ward bed will be allocated for you. However, your consultant may allow you to go home directly from the Endoscopy Unit later that same day. Providing you have a responsible adult that can stay with you for at least 24 hours and you are recovering well.

When can I go home?

Usually you will leave hospital the day of or the day after your ERCP.

Following a combination of sedation and strong pain relief, you should not drive a car or motorcycle, operate machinery, drink alcohol, go to work or sign legal documents for 24 hours.

You are advised to arrange transport home with someone who can look after you. You should not use public transport for getting home.

If several procedures are necessary or complications arise, you may stay in hospital for two to three days or longer.
What happens before I leave the Endoscopy Unit or ward?

After the procedure, the consultant will see you to ensure all is well and decide whether you can go home the same day with no need to stay in hospital overnight. Results and further follow-up will be fully discussed with you.

A nurse will go through the discharge instructions with you and tell you about the care you need at home. The nurse will give you the necessary follow-up papers and appointments. Please ask if you are unsure of any of the instructions.

Instructions and advice when you go home from the hospital

Can I bath or shower?

You may bath or shower as usual. If you bath or shower in the 24 hours following your ERCP, you may feel light-headed or faint. You are advised to leave the bathroom door unlocked and arrange for someone to check periodically that you are safe. You may use any safety equipment that you usually use.

When can I resume my usual activities?

You may resume your usual activities 24 hours after your ERCP.
What should I do if I have any problems or worries about my ERCP after going home?

If you have problems in the first 24 hours after you leave hospital, please telephone the ward you were on or contact your GP. After 24 hours, please contact your GP.

If you develop severe abdominal pain, a fever, black faeces (melaena), jaundice or are unable to stop vomiting, please contact:

**York Hospital**
Endoscopy Unit: 01904 726694
8am- 6pm (Mon-Fri) or 8am-1pm (Sat)

For all other times please call 01904 631313 and ask to speak to the on call surgical registrar. Alternatively go to A+E.

**Scarborough Hospital:**
Endoscopy Unit: 01723 385141
8am- 6pm (Mon-Fri)

For all other times please call 01723 368111 and ask to speak to the on call surgical registrar. Alternatively go to A+E.
A checklist for patients

- Do not eat or drink for at least six hours before your ERCP
- Do bring your completed admission form with you if you have been given one.
- Do bring your nightwear, slippers and toiletries
- Do bring with you any medication you are taking
- Do bring essential personal items only. You will be asked to take responsibility for your property at all times
- If you become ill or are unable to keep your admission date for any reason, do let us know by telephoning York 01904 721261 or Scarborough 01723 342660. We will rearrange your date.
Useful telephone numbers for inpatients

If you cannot keep your appointment:
York Hospital 01904 721261
Scarborough Hospital 01723 342660

For problems in the first 24 hours after you leave the ward, please telephone the hospital you were treated:
York Hospital 01904 631313
Scarborough Hospital 01723 368111
Ask for the ward you were on or the Endoscopy Unit.

After 24 hours, please contact your GP

Please use this space to make a note of any questions you have or to list any items you need to bring with you.
Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Dr J L Turvill, Consultant Gastroenterologist, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 725816.

Teaching, Training and Research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email pals@york.nhs.uk.

An answer phone is available out of hours.
Providing care together in York, Scarborough, Bridlington, Malton, Selby and Easingwold communities

Please telephone or email if you require this information in a different language or format

01904 725566
email: access@york.nhs.uk

Braille  Audio e.g. CD
Large print  Electronic

Owner Dr J L Turvill, Dr S Kelly and Dr C E Millson
Date first issued September 2001
Review Date April 2020
Version 7 (issued May 2018)
Approved by Consultant Gastroenterologists
Document Reference PIL 78 v7
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