

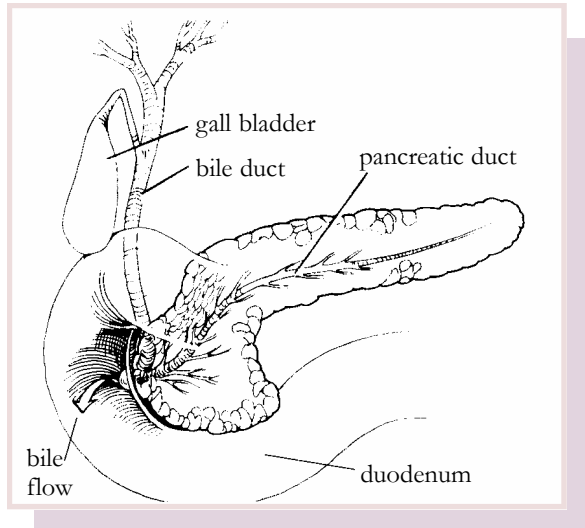
## ERCP

ERCP stands for endoscopic retrograde cholangiopancreatography. As hard as this is to say, the actual exam is fairly simple. A dye is injected into the bile and pancreatic ducts using a flexible, fiberoptic endoscope. Then x-rays are taken to outline the bile ducts and pancreas.

The liver produces bile, which flows through the ducts, passes or fills the gallbladder and then enters the intestine (duodenum) just beyond the stomach. The pancreas, which is six to eight inches long, sits behind the stomach. This organ secretes digestive enzymes that flow into the intestine through the same opening as the bile. Both bile and enzymes are needed to digest food.

## Equipment

The flexible endoscope is a remarkable piece of equipment that can be directed and moved around the many bends in the upper gastrointestinal tract. A thin, glass fiberoptic bundle collects light at one tip of the scope and, regardless of how it is angled, transmits the image to the other viewing end. An open channel in the scope allows other instruments to be passed through it to perform biopsies, remove polyps or inject solutions.



## Reasons for the Exam

Due to factors related to diet, environment and heredity, the bile ducts, gallbladder and pancreas are the seat of numerous disorders. These can develop into a variety of diseases and/or symptoms.

ERCP helps in diagnosing and often in treating the condition.

ERCP is used for:

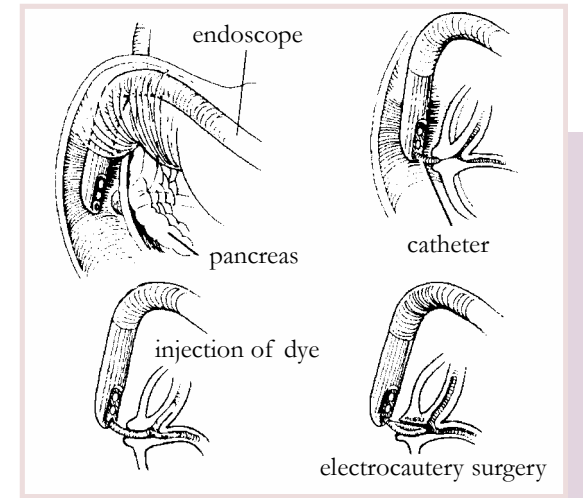
- Gallstones, which are trapped in the main bile duct
- Blockage of the bile duct
- Yellow jaundice, which turns the skin yellow and the urine dark
- Undiagnosed upper-abdominal pain
- Cancer of the bile ducts or pancreas
- Pancreatitis (inflammation of the pancreas)

## Preparation

The only preparation needed before an ERCP is to not eat or drink for eight hours prior to the procedure.

## The Procedure

An ERCP uses x-ray films and is performed in an x-ray room. The throat is anesthetized with a spray or solution, and the patient is usually mildly sedated. The endoscope is then gently inserted into the upper esophagus. The patient breathes easily throughout the exam, with gagging rarely occurring. A thin tube is inserted through the endoscope to the main bile duct entering the duodenum. Dye is then injected into this bile duct and/or the pancreatic duct and x-ray films are taken. The patient lies on his or her left side and then turns onto the stomach to allow complete visualization of the ducts. If a gallstone is found, steps may be taken to remove it. If the duct has become narrowed, an incision can be made using electrocautery (electrical heat) to relieve the blockage. Additionally, it is possible to widen narrowed ducts and to place small tubing in these areas to keep them open. The exam takes from 20 to 40 minutes, after which the patient is taken to the recovery area.



## Results

After the exam, the physician explains the results. If the effects of the sedatives are prolonged, the physician may suggest an appointment for a later date when the patient can fully understand the results.

## Benefits

An ERCP is performed primarily to identify and/or correct a problem in the bile ducts or pancreas. This means the test enables a diagnosis to be made upon which specific treatment can be given. If a gallstone is found during the exam, it can often be removed, eliminating the need for major surgery. If a blockage in the bile duct causes yellow jaundice or pain, it can be relieved.

## Alternative Testing

Alternative tests to ERCP include certain types of x-rays (CAT scan, CT) and sonography (ultrasound) to visualize the pancreas and bile ducts. In addition, dye can be injected into the bile ducts by placing a needle through the skin and into the liver. Small tubing can then be threaded into the bile ducts. Study of the blood also can provide some indirect information about the ducts and pancreas.

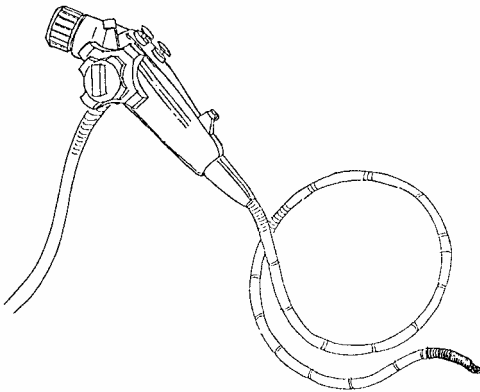
## Side Effects and Risks

A temporary, mild sore throat sometimes occurs after the exam. Serious risks with ERCP, however, are uncommon. One such risk is excessive bleeding, especially when electrocautery is used to open a blocked duct. In rare instances, a perforation or tear in the intestinal wall can occur. Inflammation of the pancreas also can develop. These complications may require hospitalization and, rarely, surgery.

Due to mild sedation, the patient should not drive or operate machinery for six hours following the exam. For this reason, a driver should accompany the patient to the exam.

## In Summary

ERCP is an outpatient exam that is performed with the patient sedated. The procedure provides significant information upon which specific treatment can be given. In certain cases, therapy can be administered directly through the endoscope. Serious complications rarely occur from an ERCP. The physician can answer any questions you have.



fiberoptic endoscope

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# ERCP



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