



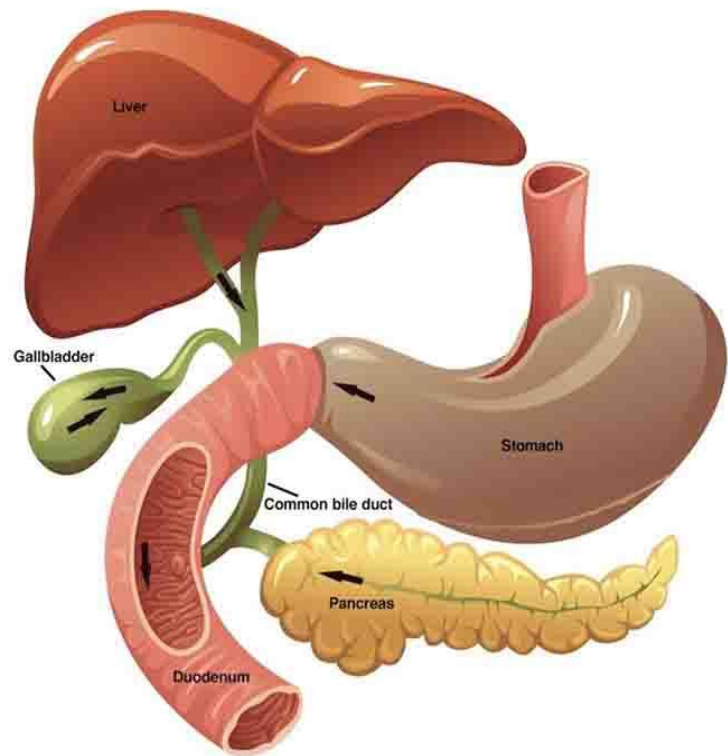
Therapeutic ERCP

What is ERCP?

Endoscopic retrograde cholangiopancreatography, or ERCP, studies the ducts that drain the liver and pancreas. Ducts are drainage routes into the bowel. The ones that drain the liver and gallbladder are called bile or biliary ducts. The one that drains the pancreas is called the pancreatic duct. The bile and pancreatic ducts join just before they drain into the upper bowel, about 3 inches from the stomach. The drainage opening is called the papilla. A circular muscle, called the sphincter of Oddi, surrounds the papilla.

Therapeutic vs Diagnostic ERCP

Diagnostic ERCP is when X-ray contrast dye is injected into the bile duct, the pancreatic duct, or both. This contrast dye is squirted through a small tube called a catheter that fits through the ERCP endoscope. X-rays are taken during ERCP to get pictures of these ducts. That is called diagnostic ERCP. However, most ERCPs are done for treatment, not just picture taking. When an ERCP is done to allow treatment, it is called therapeutic ERCP.



ERCP is not performed in our freestanding Endoscopy Center but in the hospital Radiology department as an inpatient or outpatient.

What treatments can be done through an ERCP scope?

Sphincterotomy

Sphincterotomy is cutting the muscle surrounding the opening of the ducts, or the papilla. This cut is made to enlarge the space. The cut is made while your doctor looks through the ERCP scope at the papilla or duct opening. A small wire on a specialized catheter uses an electric current to cut the tissue. A sphincterotomy does not cause discomfort; you do not have nerve endings there. The actual cut is quite small, usually less than a 1/2 inch. This small cut, or sphincterotomy, allows various treatments in the ducts. Most commonly, the amount is directed towards the bile duct, called a biliary sphincterotomy. Occasionally, the cutting is directed towards the pancreatic duct, depending on the type of treatment you need.

Stone Removal

The most common treatment through an ERCP scope is the removal of bile duct stones. These stones may have formed in the gallbladder and traveled into the bile duct or may form in the duct itself years after removing your gallbladder. After a sphincterotomy is performed to enlarge the opening of the bile duct, stones can be pulled from the duct into the bowel. Various balloons and baskets attached to specialized catheters can be passed through the ERCP scope into the ducts, allowing stone removal. Huge stones may require crushing in the chimney with a specialized basket so the fragments can be pulled out through the sphincterotomy.



Stent Placement

Stents are placed into the bile or pancreatic ducts to bypass strictures or narrowed parts of the duct. These narrowed areas of the bile or pancreatic duct are due to scar tissue or tumors that cause blockage of normal duct drainage. Two types of stents are commonly used. The first is made of plastic and looks like a small straw. A plastic stent can be pushed through the ERCP scope into a blocked duct to allow normal drainage. The second type of stent is made of metal wires that look like the cross wires of a fence. The metal stent is flexible and springs open to a larger diameter than plastic stents. Both plastic and metal stents tend to clog up after several months, and you may require another ERCP to place a new stent. Metal stents are permanent, while plastic stents are easily removed with a repeated procedure. Your doctor will choose the best type of stent for your problem.

Balloon Dilation

ERCP catheters are fitted with dilating balloons that can be placed across a narrowed

area or stricture. The balloon is then inflated to stretch out the narrowing. Dilation with balloons is often performed when the cause of the narrowing is benign (not cancer). After balloon dilation, a temporary stent may be placed for a few months to help maintain the dilation.

Tissue Sampling

One procedure commonly performed through the ERCP scope is taking tissue samples from the papilla, bile, or pancreatic ducts. There are several different sampling techniques, although the most common is to brush the area with subsequent examination of the cells obtained. Tissue samples can help decide if a stricture, or narrowing, is due to cancer. If the sample is positive for cancer, it is very accurate. Unfortunately, a tissue sampling that does not show cancer may not be accurate.

What can you expect before, during, and after a therapeutic ERCP?

It would be best to not eat for at least 8 hours before the procedure. It would be best to tell your doctor about regular medications and whether you have any allergies to medicines or contrast material.

You will have an intravenous needle placed in your arm to receive medicine during the procedure. You will be given sedatives that will make you comfortable during the ERCP. Some patients require antibiotics before the procedure. The procedure is performed on an X-ray table. ERCP usually lasts thirty minutes to an hour. Your procedure might take more or less time, depending on what your doctor needs to learn and do. After the ERCP, you will go to a recovery area until the sedation effects subside. Some patients are admitted to the hospital for a day, but many go home from the recovery unit. You should not drive a car for the rest of the day, although most patients can return to full activity the next day.

Are there any alternatives to ERCP?

Before ERCP is performed, most patients undergo less invasive diagnostic imaging procedures such as MRI or MRCP. Some patients require more advanced surgical procedures using cameras and tools by open or laparoscopic surgery. When possible, ERCP is preferred over surgery because it is less invasive and has a high success rate.

What are the possible complications of therapeutic ERCP?

The overall ERCP complication rate requiring hospitalization is 6-10%. Depending on your age, other medical problems, what therapy is performed, and the indication for your procedure, your complication rate may be higher or lower than the average. Your doctor will discuss the likelihood of complications before you undergo the test. The most common complication is pancreatitis or inflammation of the pancreas. Other complications include bleeding, infection, an adverse reaction to the sedative medication, or bowel perforation. Most complications are managed without surgery but may require you to stay in the hospital for treatment.



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The Center for Digestive Health & Nutrition is a private medical practice comprised of experienced Gastroenterologists, Nurse Practitioners, and staff members dedicated to preventing and treating digestive disorders. Our physicians have been serving the needs of those in Western Pennsylvania and surrounding areas since 1977, having cared for tens of thousands of individuals with digestive problems. Our mission is to deliver high-quality gastroenterology services efficiently and cost-consciously. We realize the very sensitive nature of GI illness and understand the necessity to provide our services in an environment that stresses patient privacy and confidentiality and where patient satisfaction is the goal. Appointments can be conveniently scheduled online via our website above. Learn more about digestive issues on Instagram @thedigestivetract

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