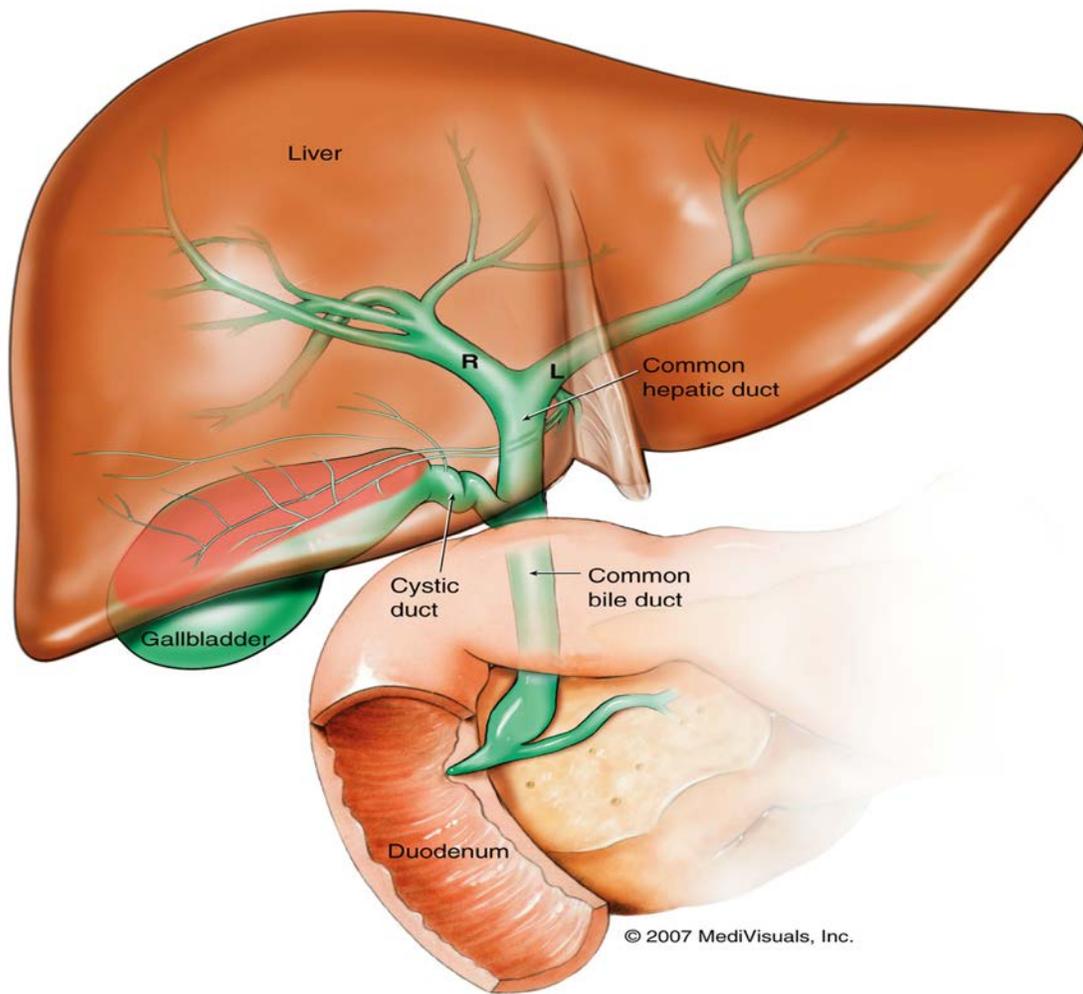


ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY (ERCP)

Endoscopic retrograde cholangiopancreatography (ERCP) is a technique that uses x-ray to view the bile and pancreatic ducts. The function of the bile and the pancreatic ducts is to drain the gallbladder, liver, and pancreas. This drainage system delivers bile and the pancreatic juice into the duodenum (the first part of the small intestine) in order for normal digestion of food to occur.

The Biliary Tree



With this endoscopic procedure, the physician will examine the bile and/or pancreatic ducts, looking for abnormalities such as blockages, irregularity in the tissue, problems with the flow of bile or pancreatic fluid, stones, or tumors. If a problem is found, the

endoscopist can often perform a procedure to repair or improve the condition. Due to its minimally invasive nature, ERCP has replaced surgery in most patients with common bile duct and pancreatic disease.

Many patients who need ERCP are hospitalized, but ERCP can also be performed as an outpatient procedure, depending on the patient's condition and on the complexity of the required procedure.

ERCP PREPARATION

You will be asked not to eat or drink anything for six to eight hours before the test. It is important for the stomach to be empty to allow the endoscopist to visualize the entire area, and to decrease the chance of vomiting and aspirating liquid into the lungs during the procedure.

You may be instructed to adjust the dose of your medications or stop taking specific medications prior to the examination. Some medications, such as anti-platelet and anticoagulant medications, need to be discontinued for several days. All medications should be discussed with your provider, since some are more important than others.

You will need a friend or family member to escort you home after the examination. This is because the medications used for sedation can impair reflexes, judgment, and your ability to drive.

WHAT TO EXPECT IN THE ENDOSCOPY UNIT

Prior to the endoscopy, you will be asked some questions about your medical history and the medications you are currently taking.

Sedation — An intravenous (IV) line will be inserted prior to the procedure in order to administer medications. You will be given anesthesia in order to put you to sleep for the ERCP.

For safety reasons, you will be asked to remove eyeglasses, contact lenses, and dentures. Before the procedure begins, you may be given local anesthetic (a numbing spray applied onto the throat or gargled).

ERCP PROCEDURE

ERCP is performed in a room that contains x-ray equipment. You will lie on a special table during the examination, generally on your stomach.

Although many people worry about discomfort from the endoscopy, most people tolerate it well and feel fine afterwards. Medications will be given through the IV line during the procedure. A plastic mouth guard is placed between the teeth to prevent damage to the teeth and endoscope. An anesthesiologist will be present to administer sedation. You will be asleep for the procedure.

The ERCP endoscope is a special flexible tube, approximately the size of a finger. It contains a lens and a light source that allows the endoscopist to view the inside of the patient's body; images are magnified on a monitor so that even very small details and changes can be seen. The endoscope also contains channels that allow the endoscopist to take biopsies (painless tissue samples) and introduce or withdraw fluid, air, or other instruments.

Once the scope is inserted through the mouth, air is introduced to open up the esophagus, stomach, and intestine so the scope can be passed through those structures and to allow the endoscopist to see.

Depending on what the endoscopist sees during the ERCP, he or she may perform a variety of procedures or treatments. The length of the examination varies from 30 minutes and two hours.

RECOVERY AFTER ERCP

After ERCP, you will be monitored while the sedative medication wears off. The medicines cause most people to temporarily feel tired or have difficulty concentrating, so it is usually advised not to return to work or drive that day.

The most common discomfort after the examination is a feeling of bloating as a result of the air introduced during the examination. This usually resolves quickly. Some people also have a mild sore throat. Most people are able to eat shortly after the examination. In some cases, blood tests may be done the same day following ERCP.

The endoscopist can usually tell the patient the results of their examination right away. If biopsies were taken, the tissue will need to be sent to a lab for analysis.

ERCP COMPLICATIONS

ERCP is a safe procedure and serious complications are uncommon. If complications do occur, they are usually mild, and may include the following:

- Pancreatitis (inflammation of the pancreas) is the most frequent complication, occurring in about 3 to 5 percent of people undergoing ERCP. When it occurs, it is usually mild, causing abdominal pain and nausea, which resolve after a few days in the hospital.
- Bleeding can occur from a cut into the ampulla, but it is usually minimal and stops quickly by itself or can be controlled during the ERCP procedure.
- The ERCP scope or other instruments can cause a tear or hole in the intestine being examined (called perforation). This is a serious condition but rarely requires intervention other than conservative observation.
- Infection of the bile ducts (cholangitis) is rare in general, but it can occur, particularly in patients with certain preexisting conditions. Treatment of infections requires antibiotics and drainage of excess fluid.
- Aspiration (inhalation) of food or fluids into the lungs. The risk of this complication is minimal in people who do not eat or drink for several hours before the examination.

The following symptoms should be reported immediately:

- Severe abdominal pain (not just gas cramps)
- A firm, distended abdomen
- Vomiting
- Fever or chills
- Difficulty in swallowing or a severe sore throat
- A crunching feeling under the skin

If this is the patient's first ERCP or depending on the underlying cause for the procedure, there is a high probability that overnight admission to the hospital will be necessary. Discuss with your physician if you have any questions about this possibility.