

Endoscopy

Endoscopy is a medical procedure that allows a doctor to observe the inside of the body without performing major surgery. An endoscope (fibrescope) is a long flexible tube with a lens at one end and a video camera at the other.

The end with the lens is inserted into the patient. Light passes down the tube (via bundles of optical fibres) to illuminate the relevant area, and the video camera magnifies the area and projects it onto a television screen so the doctor can see what is there. Usually, an endoscope is inserted through one of the body's natural openings, such as the mouth, urethra, or anus.

Specially designed endoscopes are used to perform simple surgical procedures, such as:

- Locating, sampling or removing tumours from the lungs and digestive tract.
- Locating and removing foreign objects from the lungs and digestive tract.
- Taking small samples of tissue for diagnostic purposes (biopsy).
- Removing stones from the bile duct.
- Placing tubes (stents) through blockages in the bile duct, oesophagus, duodenum, or colon.

A range of endoscopes

Endoscopes have been developed for many parts of the body. Each has its own name, depending on the part of the body it is intended to investigate, such as:

- **Bronchoscope** – inserted down the trachea (windpipe) to examine the lung.
- **Colonoscope** – inserted through the anus to examine the colon (bowel).
- **Gastroscope** – inserted down the oesophagus to examine the stomach.
- **Duodenoscope** – inserted through the stomach into the duodenum to inspect and perform procedures on the bile duct and /or pancreatic duct, called ERCP (Endoscopic Retrograde Cholangio-Pancreatogram).
- **Hysteroscope** – inserted through the cervix to examine the uterus.
- **Cystoscope and ureteroscope** - inserted via the urethra to inspect the urinary bladder and ureters.

Medical issues to consider

Depending on the condition under investigation, some endoscopies can be carried out in the doctor's surgery. Others need a trip to hospital or day surgery facility, and may require a general anaesthetic.

Endoscopies are generally painless, although they may still cause some discomfort. Compared with the stress experienced by the body in a full surgical procedure, an endoscopy is simple, low risk, and cost effective. Other advantages include:

- No scar – as a natural body opening is used.
- Quick recovery time.
- Less time in hospital. Often, no time in hospital is required as the procedure is performed in the doctor's rooms.

Prior to the endoscopy, your doctor will talk to you about your medical history including allergies and current medications. These factors can have a bearing on the operation.

Endoscopy procedure

The exact procedure used depends on the type of endoscopy and choice of anaesthesia. You may have sedation or a general anaesthetic.

The endoscope is inserted through a natural opening. The doctor may simply make a diagnosis. They may also take a sample of tissue (biopsy) for later analysis in a laboratory.

Alternatively, your doctor could perform minor surgery at the same time. For example, they may place a stent across an obstructing tumour or remove a stone from a bile duct. Once the endoscopy is complete, the endoscope is removed.

Immediately after the endoscopy

After the endoscopy, you can expect:

- In most cases, you are kept under observation for just an hour or so.
- If you have been given general anaesthetic, you are monitored for longer.
- Some types of endoscopic procedures, such as ERCP, may require an overnight hospital stay to make sure all is well.
- You are given pain relief, if necessary.
- You need someone else to drive you home, or else catch a taxi, because of the effects of medication during surgery.

Possible complications

Possible complications of endoscopy include:

- Perforation of an organ
- Excessive bleeding (haemorrhage)
- Infection
- Allergic reaction to the anaesthesia.
- Inflammation of the pancreas (pancreatitis) after an ERCP.

Taking care of yourself at home

Self-care depends on the type of endoscopy you undergo. Be guided by your doctor, but general suggestions include:

- Most patients are able to resume normal activities within 24 hours to a few days.
- Contact your doctor or go to the hospital if you experience severe abdominal pain, vomiting, or pass blood or have black bowel actions.

Long-term outlook

Recovery time following endoscopy is rapid, usually a few hours to one day or so.

Alternatives to endoscopy

The main alternatives to endoscopy are x-rays for diagnostic procedures or open surgery for treatment procedures.

Diagnoses of the gut may be made by swallowing x-ray contrast (barium) or having it passed into the rectum. The disadvantages of x-ray procedures include:

- An unpleasant taste or discomfort
- No biopsies can be taken for tissue diagnosis
- A therapeutic procedure such as removal of a polyp (tumour) cannot be performed at the same time.

For treatment procedures, instead of accessing the body's natural openings the abdominal cavity (for example) is opened using one large cut. The disadvantages of open surgery include:

- Longer hospital stay
- Increased risk of complications, including infection
- Longer convalescence (recovery time)
- Comparatively extensive scarring.

Where to get help

- Your doctor
- The hospital or centre where the procedure was performed.

Things to remember

- Endoscopy is a medical procedure that allows a doctor to inspect and observe the inside of the body without performing major surgery.
- An endoscope is a long, usually flexible tube with a lens at one end and a video camera at the other.
- Usually, an endoscope is inserted through one of the body's natural openings, such as the mouth, urethra or anus.

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General Surgeons Australia

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