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Types of Endoscopy [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 02/2016

Endoscopy is a procedure that allows a doctor to view the inside of a person's body. Originally, endoscopy was only used in the esophagus, stomach, and colon. Now, doctors can use endoscopy to diagnose diseases of the ear, nose, throat, heart, urinary tract, joints, and abdomen.

How does an endoscopy work?

During an endoscopy, the doctor inserts a tool called an endoscope into a person's body. Most endoscopes are thin tubes with a powerful light and tiny camera at the end. There are several different types of endoscopes.

The length and flexibility of the endoscope depends the part of the body the doctor needs to see. For example, an endoscope that helps a doctor examine the joints is often rigid. However, one used to view the inside of the colon is flexible.

An endoscope also often has a channel so the doctor can insert tools to collect tissue or provide treatment. Some of the tools a doctor may use during an endoscopy include:

- Flexible forceps, a tool that looks like tongs, for taking a tissue sample
- Biopsy forceps for removing a tissue sample or a suspicious growth

- Cytology brush for taking cell samples
- Suture removal forceps for removing stitches inside the body

Why you might need an endoscopy?

Your doctor may recommend an endoscopy for several different reasons.

- **To screen for and prevent cancer.** Doctors use a type of endoscopy called a [colonoscopy](#) [3] to screen for colorectal cancer. During a colonoscopy, your doctor can remove growths called polyps that could develop into cancer.
- **To diagnose a disease or find out the cause of symptoms.** The type of endoscopy your doctor will recommend depends on the part of the body that needs to be seen.
- **To give treatment.** Doctors can provide different treatments using endoscopy. These treatments include:
 - Surgery through small incisions in the skin, called [laparoscopic surgery](#) [4].
 - Laser therapy using a powerful beam of light to destroy cancer cells.
 - Photodynamic therapy by injecting a light-sensitive substance into a tumor then destroying the tumor with a laser.
 - Giving medicines

Types of endoscopy

The most common types of endoscopy are listed below. Doctors performing endoscopy go through extensive training to learn these procedures. Also, they participate in continuing education to learn about new developments in technology.

Name of procedure	Name of tool	Area or organ viewed	How endoscope reaches target area
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Arthroscopy	Arthroscope	Joints	Inserted through a small incision over the area to be viewed
Bronchoscopy	Bronchoscope	Trachea (windpipe) and bronchi of the lungs	Inserted through the mouth
Colonoscopy	Colonoscope	Entire length of the colon and large intestine	Inserted through the anus
Colposcopy	Colposcope	Vagina and cervix	A speculum is inserted into the vagina. The colposcope is placed at the opening of the vagina but does not enter it.
Cystoscopy	Cystoscope	Inside of the bladder	Inserted through the urethra
Esophagoscopy	Esophagoscope	Esophagus	Inserted through the mouth
Gastrosocopy	Gastroscope	Stomach and duodenum (beginning of the small intestine)	Inserted through the mouth
Laparoscopy	Laparoscope	Stomach, liver, or other abdominal organ, including female reproductive organs (uterus, ovaries, fallopian tubes)	Inserted through a small, surgical opening in the abdomen
Laryngoscopy	Laryngoscope	Larynx (voice box)	Inserted through the mouth
Neuroendoscopy	Neuroendoscope	Areas of the brain	Inserted through a small incision in the skull near the area to be viewed
Proctoscopy	Proctoscope	Rectum and sigmoid colon	Inserted through the anus
Sigmoidoscopy	Sigmoidoscope	Sigmoid colon (bottom part of the colon)	Inserted through the anus
Thoracoscopy	Thoracoscope	Pleura covering the lungs and structures covering the heart	Inserted through a small surgical opening in chest

Getting ready for an endoscopy

Before your endoscopy, your health care team will give you detailed instructions on how to prepare. For example, you may need to take the following steps:

- Not to eat or drink anything for several hours before the procedure.
- Stop taking blood-thinning medications several days before the procedure to reduce the risk of bleeding.
- Take a laxative or use an enema to clean out stool from your bowels, depending on the type of endoscopy.

Before your appointment, check with your insurance provider. Find out if the cost of the procedure is covered and if you may need to pay part of it.

Once you arrive for your endoscopy, your health care team will ask you to sign a consent form. This form states that you understand the benefits and risks and agree to have the procedure. Talk with your doctor about any concerns you have about the endoscopy.

During the procedure

For most endoscopic procedures you will not need to stay in the hospital overnight. You may receive [anesthesia](#) [5] and/or a sedative depending on the type of endoscopy. Anesthesia blocks the awareness of pain. A sedative relaxes you. The type used will determine if you are alert, drowsy, or asleep during the procedure.

Throughout the procedure, your health care team will monitor your temperature, blood pressure, and heart rate. Your doctor will review and, in some cases, record the images from the endoscope. He or she will also perform any procedures, such as collecting tissue for testing.

After the procedure

After the endoscopy, you will rest in a recovery area. You may have mild side effects afterwards. This depends on the type of endoscopy but can include a sore, dry throat or bloating and gas. If you received anesthesia during the procedure, you will need to have someone drive you home.

Complications from endoscopy are uncommon, but they can happen. They can include a hole or tear in the area being examined, bleeding, and infection.

Talk with your doctor right away if you have any of the following symptoms:

- Fever
- Vomiting
- Chest pain
- Abnormal stool
- Shortness of breath
- Severe abdominal pain or other unusual symptoms

Endoscopy advances

New techniques continue to make endoscopy more comfortable for patients. This also makes it easier for doctors to diagnose a number of different diseases.

- **Virtual endoscopy.** Unlike a standard endoscopy, no endoscope is inserted in the body in these procedures. They use [computed tomography \(CT\) scans](#) [6] of thin segments of the body. A computer joins these images to create a more complete view. There are different procedures based on the part of the body being examined. These and other types of virtual endoscopy are still being researched.
 - A virtual colonoscopy is used to look at the inside of the colon. Patients having this test still need to follow the same bowel-cleansing procedures as a regular colonoscopy. And, they will need a traditional colonoscopy if polyps are found.
 - Virtual bronchoscopy looks at the inside of the lungs.
- **Capsule endoscopy.** For this type of endoscopy, a patient swallows a small, vitamin-sized capsule with a camera. The camera captures images of the inside of the esophagus, stomach, and small intestine. The images are recorded on a device that you wear for approximately eight hours. The doctor then reviews them. Although capsule endoscopy has been around for a while, advances continue to be made this area.

More Information

[Sigmoidoscopy](#) [7]

[Upper Endoscopy](#) [8]

Additional Resource

MedlinePlus: [Endoscopy](#) [9]

Links

[1] <http://www.cancer.net/navigating-cancer-care/diagnosing-cancer/tests-and-procedures/types-endoscopy>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/24481>

[4] <http://www.cancer.net/node/24720>

[5] <http://www.cancer.net/node/24375>

[6] <http://www.cancer.net/node/24486>

[7] <http://www.cancer.net/node/24678>

[8] <http://www.cancer.net/node/24731>

[9] <https://www.nlm.nih.gov/medlineplus/endoscopy.html>