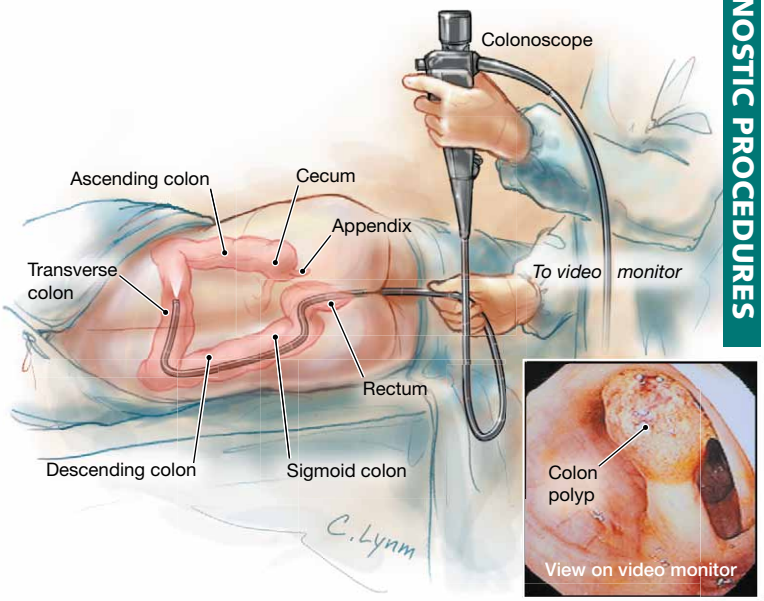
Colonoscopy

Colonoscopy is an **endoscopic** (visualization of the inside of the body) diagnostic and therapeutic procedure that uses a **colonoscope** (a finger-thick flexible fiber-optic tube with a video camera and several channels for instruments, suction, and air). Colonoscopy is used for a direct assessment of the internal lining of the **large intestine** (large bowel) and to take a **biopsy** (removal of a small piece of tissue).



Endoscopic image courtesy of Arnold J. Markowitz, MD

INDICATIONS

- Gastrointestinal bleeding
- Changes in bowel movement pattern
- Screening or testing for cancer, **polyps** (growths that may become cancer), or inflammatory bowel disease

PREPARATION

Tell a physician who is planning your colonoscopy if you

- Are taking any blood-thinning drugs (such as warfarin or heparin) or antiplatelet medication (such as aspirin or clopidogrel)
- Have severe heart, liver, or kidney disease or diabetes
- Use nonsteroidal anti-inflammatory drugs or antihypertensive drugs
- Use any iron supplements

The large intestine must be completely free of stool. To achieve this, a clear-liquid diet is recommended for a day or two before colonoscopy. A laxative medication is used to clean the bowels the afternoon before and sometimes the morning of the procedure. Colonoscopy requires sedation, so it may be performed as an outpatient procedure only if an adult accompanies the patient.

TECHNIQUE

Under intravenous sedation or general anesthesia, a colonoscope is inserted through the anus to the rectum while the person is lying on the side, then advanced through the colon. After inflation with air or carbon dioxide to stretch the large intestine to allow easier visualization, the colonoscope is slowly removed while its flexible tip allows for inspection of the inner lining of colon and rectum. There may be discomfort when inserting the colonoscope. Any suspicious changes of the lining can be biopsied, and if a polyp is spotted it can be removed (**polypectomy**) with a snare and **cautery** (a hot instrument). Biopsy and polypectomy are not painful. The biopsy tissue and the polyp are later examined under a microscope. Colonoscopy usually lasts less than 30 minutes but it may be longer if any additional problems like multiple polyps or bleeding require treatment.

If colonoscopy is negative (no polyps or cancer found), screening should be repeated in about 10 years; however, if a polyp has been found or if the patient's colon cancer risk is high, it may need to be repeated earlier.

RISKS

Cramping and bloating are usual after colonoscopy. Dehydration after use of a laxative, **colon perforation** (a hole in the large intestine), heavy bleeding, bowel infection, or allergic reaction are uncommon but may occur. Persistent severe abdominal pain or prolonged rectal bleeding after colonoscopy may be a sign of a developing complication.

FOR MORE INFORMATION

- National Institute of Diabetes and Digestive and Kidney Diseases digestive.niddk.nih.gov/ddiseases/pubs/colonoscopy/
- National Library of Medicine www.nlm.nih.gov/medlineplus/ency/article/003886.htm

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Sources: National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health, and the National Library of Medicine

Ryszard M. Pluta, MD, PhD, Writer
Cassio Lynm, MA, Illustrator
Robert M. Golub, MD, Editor

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