

Colonoscopy



What is a colonoscopy?

A colonoscopy allows a healthcare provider to look inside the entire large intestine. The procedure enables the healthcare provider to see things such as inflamed tissue, abnormal growths, and ulcers. It is most often used to look for early signs of cancer in the colon and rectum. It is also used to look for causes of unexplained changes in bowel habits and to evaluate symptoms like abdominal pain, rectal bleeding, and weight loss.

What is the colon?

The colon, or large bowel, is the last portion of the digestive tract, or gastrointestinal tract. The colon is a hollow tube about five feet long that starts at the end of the small intestine and ends at the rectum and anus. Its main function is to store unabsorbed food waste and absorb water and other body fluids before the waste is eliminated as stool.

Preparation

The patient will be given instructions in advance that will explain what they need to do to prepare for the colonoscopy. The patient's colon must be completely empty for the colonoscopy to be thorough and safe. To prepare for the procedure the patient will have to follow a liquid diet for 1–3 days beforehand. The liquid diet should be clear and not contain food colorings, and may include:

- fat-free bouillon or broth
- strained fruit juice
- water
- plain coffee
- plain tea
- diet soda
- gelatin

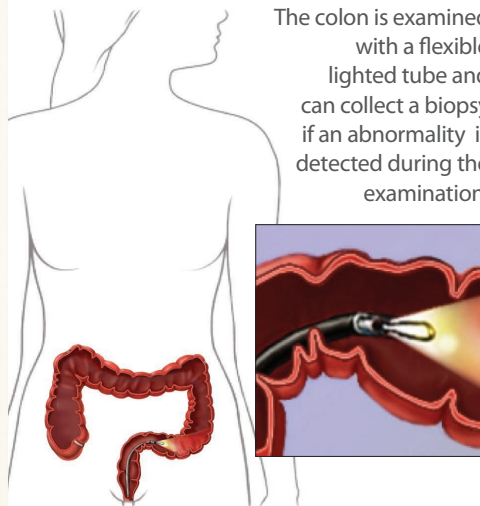
Cleansing of the bowel is necessary before a colonoscopy. The patient will likely be asked to take a laxative the night before the procedure.

In some cases the patient may be asked to give themselves an enema. An enema is performed by inserting a bottle with water and sometimes a mild soap in the anus to clean out the bowels. The patient will need to inform their healthcare provider of any medical conditions they have or medications they take on a regular basis such as aspirin, arthritis medications, blood thinners, diabetes medication, and vitamins that contain iron.

The medical staff will also want to know if the patient has heart disease, lung disease, or any medical condition that may need special attention. The patient must also arrange for someone to take them home afterward, because they will not be allowed to drive after being sedated.



SIGMOIDOSCOPY OR COLONOSCOPY



The colon is examined with a flexible lighted tube and can collect a biopsy if an abnormality is detected during the examination.



Sigmoidoscope

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Procedure

To perform the colonoscopy, the patient will lie on their left side on the examining table. They will be given pain medication and a moderate sedative to help them keep comfortable and relax during the exam. The healthcare provider will monitor the patient's vital signs, look for any signs of discomfort, and make adjustments as needed.

The healthcare provider will then insert a long, flexible, lighted tube, called a colonoscope, into the patient's rectum and slowly guide it into the colon. The colonoscope transmits an image of the inside of the colon onto a video screen so the healthcare provider can carefully examine the lining of the colon. The colonoscope bends so it can easily be moved around the curves of the patient's colon.

The patient may be asked to change positions at times so the healthcare provider can more easily move the endoscope to

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better see the different parts of the colon. The endoscope blows air into the colon and inflates it, which helps give the healthcare provider a better view.

A colonoscopy usually takes 30–60 minutes. During the procedure the patient may feel mild cramping. This can be reduced by taking several slow, deep breaths. When the healthcare provider has finished, the colonoscope is slowly withdrawn while the lining of the patient's bowel is carefully examined. Bleeding and puncture of the colon are possible but uncommon complications of a colonoscopy.

The sedative and pain medicine should keep the patient from feeling much discomfort during the exam. They may feel some cramping or the sensation of having gas after the procedure is completed, but it usually stops within an hour. The patient will need to remain at the colonoscopy facility for 1 to 2 hours so the sedative can wear off. Most patients do not remember the procedure afterwards.

How is the biopsy diagnosed at the lab?

The healthcare provider can remove (biopsy) most abnormal growths in the patient's colon, such as a polyp, which is a growth in the lining of the bowel. Polyps are removed using tiny tools passed through the endoscope. The polyps are then sent to a pathology lab for testing. There, the tissue is processed into thin sections which are prepared on glass slides and examined under the microscope by a pathologist, a doctor specialized in the diagnosis of disease. At Miraca Life Sciences, all of the pathologists have specialized in a specific area of subspecialty, such as GI pathology for conditions of the digestive system.

The pathologist looks for abnormal cellular changes under the microscope. He or she interprets the microscopic results in the context of the clinical information provided by your healthcare

provider. Some cases require an additional special analysis to evaluate proteins, RNA or DNA.

If any bleeding occurs in the colon, the healthcare provider can pass a laser, heater probe, electrical probe, or special medicines through the endoscope to stop the bleeding. The tissue removal and treatments to stop bleeding usually do not cause pain. In many cases, a colonoscopy allows for accurate diagnosis and treatment of colon abnormalities without the need for a major operation.

At Miraca Life Sciences, difficult and unusual cases are reviewed together by our subspecialist pathologists at a large multi-headed microscope to ensure the most accurate and definitive diagnoses. The pathologist creates a pathology report with all the important findings, including critical information to help guide treatment and assess prognosis, which is sent back to the patient's healthcare provider.

What are the risks of this procedure?

Although most patients need to be sedated for colonoscopy, sedation is usually safe. Complications are uncommon, and usually mild and short-lasting. They include feeling sick or being sick; a burning sensation where the sedative was injected; breathing problems; an irregular or slow heartbeat; low blood pressure; or rarely, saliva or food falling into the lungs.

If a biopsy also is performed, the risk of infection increases, but most infections are minor and can be treated with antibiotics. Medications such as blood-thinners may also need to be stopped for a short time after the test.

However, full recovery by the next day is normal. Colonoscopy rarely causes serious complications. But, if severe abdominal pain, fever, bloody stools, dizziness, or weakness occur, the patient should contact their healthcare provider immediately.

This material is intended for patient education and information only. It does not constitute advice, nor should it be taken to suggest or replace professional medical care from your physician. Your treatment options may vary, depending upon medical history and current condition. Only your physician and you can determine your best option.

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Headquartered in Irving, Texas, **Miraca Life Sciences** provides the highest-quality anatomic pathology services, primarily in the fields of breast pathology, dermatopathology, hematopathology, gastrointestinal pathology, and urologic pathology. The company's team of nearly 90 pathologists—all fellowship-trained subspecialists—utilize state-of-the-art laboratories throughout the United States to serve more than 5,500 patients every day. Miraca Life Sciences continuously improves diagnostic precision through a unique consensus approach, rigorous quality assurance, comprehensive expertise, ongoing education and research, and close relationships with our clinician clients. Find more patient information and resources on our website at www.MiracaLifeSciences.com.