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## Patient education: Colonoscopy (Beyond the Basics)

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**COLONOSCOPY OVERVIEW** — A colonoscopy is an exam of the lower part of the gastrointestinal tract, which is called the colon or large intestine (bowel). Colonoscopy is a safe procedure that provides information other tests may not be able to give. Patients who require colonoscopy often have questions and concerns about the procedure.

Colonoscopy is performed by inserting a device called a colonoscope into the anus and advancing through the entire colon ([figure 1](#)). The procedure generally takes between 20 minutes and one hour.

Other tests that are sometimes used to screen for colon cancer, like virtual colonoscopy (also called CT colonography), are discussed separately. (See "[Patient education: Colon and rectal cancer screening \(Beyond the Basics\)](#)".)

More detailed information about colonoscopy is available by subscription. (See "[Tests for screening for colorectal cancer: Stool tests, radiologic imaging and endoscopy](#)".)

**REASONS FOR COLONOSCOPY** — The most common reasons for colonoscopy are:

- To screen for colon polyps (growths of tissue in the colon) or colon cancer
- Rectal bleeding
- A change in bowel habits, like persistent diarrhea
- Iron deficiency anemia (a decrease in blood count due to loss of iron)
- A family history of colon cancer
- A personal history of colon polyps or colon cancer
- Chronic, unexplained abdominal or rectal pain
- An abnormal x-ray exam, like a barium enema or CT scan

**COLONOSCOPY PREPARATION** — Before colonoscopy, your colon must be completely cleaned out so that the doctor can see any abnormal areas. This is vitally important to increase the chances

that your doctor will identify abnormalities in your colon. If your colon is not completely cleaned out, the chances your doctor will miss abnormalities increases. Your doctor's office will provide specific instructions about how you should prepare for your colonoscopy. Be sure to read these instructions as soon as you get them so you will know how to take the preparation and whether you need to make any changes to your medications or diet. If you have questions, call the doctor's office in advance.

You will need to avoid solid food for at least one day before the test. You should also drink plenty of clear fluids on the day before the test. You can drink clear liquids (a liquid you can hold up to the light and see through) up to several hours before your procedure, including:

- Water
- Clear broth (beef, chicken, or vegetable)
- Coffee or tea (without milk)
- Ices
- Gelatin such as Jell-O (avoid red gelatin)

Avoid drinking red liquids. Your doctor may also ask you to avoid high fiber foods including seeds and nuts for the week before the procedure.

To clean the colon, you will take a strong laxative and empty your bowels. You may be asked to take the entire preparation the night before the test, or you may be asked to take it in two doses, with the second dose taken four to six hours prior to the colonoscopy. Taking the preparation in two "split" doses may help get the colon even cleaner. This may require you to wake up early in the morning to complete the preparation. The instructions you are given will tell you how you should take the preparation.

A commonly used preparation is a 4-liter (1 gallon) solution that is purchased at the pharmacy with a prescription. There are several low-volume (2- to 3-liter) preparations on the market as well. Some doctors prefer citrate of magnesia (also called magnesium citrate), a 300 mL (10 ounce) bottle that requires no mixing and is over-the-counter. Packets of powdered laxative are available that are mixed with a smaller volume of water. Sodium phosphate-based preparations are now usually avoided due to concerns over safety.

Refrigerating the solution can make it easier to drink, but do not put ice in the solution since it will melt and you will have to drink even more fluid. Drinking the solution through a straw, adding sugar-free powdered flavor packets (eg, Crystal Light), and taking half the preparation the night before and the other half later (four to six hours before your colonoscopy) may also make it easier to drink. Drinking this solution may be the most unpleasant part of the exam. Watery diarrhea is the desired result. This may occur shortly after drinking the solution or may be delayed for several hours. The end result should be diarrhea that looks like urine. If you become nauseated or vomit while drinking the solution, call your doctor or nurse for instructions. Tips that can help with nausea and vomiting include temporarily stopping drinking the solution, walking around, and resuming drinking at a slower pace. (See "[Bowel preparation for colonoscopy and flexible sigmoidoscopy in adults](#)".)

**Medicines** — You can take most prescription and nonprescription medicines right up to the day of the colonoscopy. Your doctor should tell you what medicines to stop. You should also tell the doctor if you are allergic to any medicines.

Some medicines increase the risk of heavy bleeding if you have a polyp removed during the colonoscopy. Ask your doctor how and when to stop these medicines, including warfarin/Coumadin, clopidogrel/Plavix, or any other anticoagulant (blood thinning) medicine. Do not stop these medications without first talking with your doctor.

**Transportation home** — Most patients are given a sedative (a medicine to help you relax) during the colonoscopy, so you will need someone to take you home after your test. Your doctor may prefer that an anesthesiologist administer the sedative and monitor you during the colonoscopy. Although you will be awake by the time you go home, the sedative/anesthetic medicines cause changes in reflexes and judgment that can interfere with your ability to make decisions, similar to the effect of alcohol. You will not be able to drive home or go back to work after the examination if you received sedation for the procedure. You should be able to return to work the next day.

**WHAT TO EXPECT** — Before the test, a doctor will review the procedure with you, including possible complications, and ask you to sign a consent form.

An IV line will be inserted in your hand or arm. Your blood pressure, heart rate, and breathing will be monitored during the test.

**THE COLONOSCOPY PROCEDURE** — You will be given fluid and medicines through the IV line. With sedation/analgesia provided during the colonoscopy, many people sleep during the test, while others are very relaxed, comfortable, and generally not aware. Your doctor may request an anesthesiologist give you an anesthetic agent (for example, propofol), which is a stronger sedative and will put you to sleep while you are being closely monitored.

The colonoscope is a long black flexible tube, approximately the diameter of the index finger. The doctor will gently pump air and sterile water or saline through the scope into the colon to inflate it and allow the doctor to see the entire lining. You might feel bloating or gas cramps as the air opens the colon. Try not to be embarrassed about passing this gas (it is just air), and let your doctor know if you are uncomfortable. You may feel like you have to go to the bathroom, which is a normal feeling during the procedure.

During the procedure, the doctor might take a biopsy (small pieces of tissue) or remove polyps. Polyps are growths of tissue that can range in size from the tip of a pen to several inches. Most polyps are benign (not cancerous). However, some polyps can become cancerous if allowed to grow for a long time. Having a polyp removed does not hurt. (See "[Patient education: Colon polyps \(Beyond the Basics\)](#)" and "[Endoscopic removal of large colon polyps](#)".)

**RECOVERY FROM COLONOSCOPY** — After the colonoscopy, you will be observed in a recovery area, usually for about 30 to 60 minutes until the effects of the sedative medication wear off. The most common complaint after colonoscopy is a feeling of bloating and gas cramps. You should pass gas and not feel embarrassed doing this either during or after the procedure. This will relieve your feelings of bloating and cramping. You may also feel groggy from the sedation medications. You should not return to work, drive, or drink alcohol that day. Most people are able to eat normally after the test. Ask your doctor when it is safe to restart aspirin and other blood-thinning medications.

**COLONOSCOPY COMPLICATIONS** — Colonoscopy is a safe procedure, and complications are rare but can occur:

- Bleeding can occur from biopsies or the removal of polyps, but it is usually minimal and can be controlled.
- The colonoscope can cause a tear or hole in the colon. This is a serious problem, but it does not happen commonly.
- It is possible to have side effects from the sedative medicines.
- Although colonoscopy is the best test to examine the colon, it is possible for even the most skilled doctors to miss or overlook an abnormal area in the colon.

You should call your doctor immediately if you have any of the following:

- Severe abdominal pain (not just gas cramps)
- A firm, bloated abdomen
- Vomiting
- Fever
- Rectal bleeding (greater than a couple of tablespoons [30 mL])

**AFTER COLONOSCOPY** — Although many people worry about being uncomfortable during a colonoscopy, most people tolerate it very well and feel fine afterward. It is normal to feel tired afterward. Plan to take it easy and relax the rest of the day.

Your doctor can describe the results of the colonoscopy as soon as it is over. If s/he took biopsies or removed polyps, you should call for results within one to two weeks if your doctor has not already contacted you.

**WHERE TO GET MORE INFORMATION** — Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our website ([www.uptodate.com/patients](http://www.uptodate.com/patients)). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

**Patient level information** — UpToDate offers two types of patient education materials.

**The Basics** — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient education: Colonoscopy \(The Basics\)](#)

[Patient education: Colon and rectal cancer screening \(The Basics\)](#)

[Patient education: GI bleed \(The Basics\)](#)

[Patient education: Angiodysplasia of the GI tract \(The Basics\)](#)

[Patient education: Familial adenomatous polyposis \(The Basics\)](#)

[Patient education: Microscopic colitis \(The Basics\)](#)

**Beyond the Basics** — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

[Patient education: Colon and rectal cancer screening \(Beyond the Basics\)](#)

[Patient education: Colon polyps \(Beyond the Basics\)](#)

**Professional level information** — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

[Bleeding after colonic polypectomy](#)

[Bowel preparation for colonoscopy and flexible sigmoidoscopy in adults](#)

[Endoscopic diagnosis of inflammatory bowel disease](#)

[Endoscopic procedures in patients with disorders of hemostasis](#)

[Endoscopic removal of large colon polyps](#)

[Overview of procedural sedation for gastrointestinal endoscopy](#)

[Alternatives and adjuncts to moderate procedural sedation for gastrointestinal endoscopy](#)

[Screening for colorectal cancer: Strategies in patients at average risk](#)

[Sedation-free gastrointestinal endoscopy](#)

[Tattooing and other methods for localizing colonic lesions](#)

[Tests for screening for colorectal cancer: Stool tests, radiologic imaging and endoscopy](#)

[Wireless video capsule endoscopy](#)

The following organizations also provide reliable health information.

- National Library of Medicine

[www.nlm.nih.gov/medlineplus/colonoscopy.html](http://www.nlm.nih.gov/medlineplus/colonoscopy.html)

- American Society for Gastrointestinal Endoscopy

[www.asge.org/PatientInfoIndex.aspx?id=382](http://www.asge.org/PatientInfoIndex.aspx?id=382)

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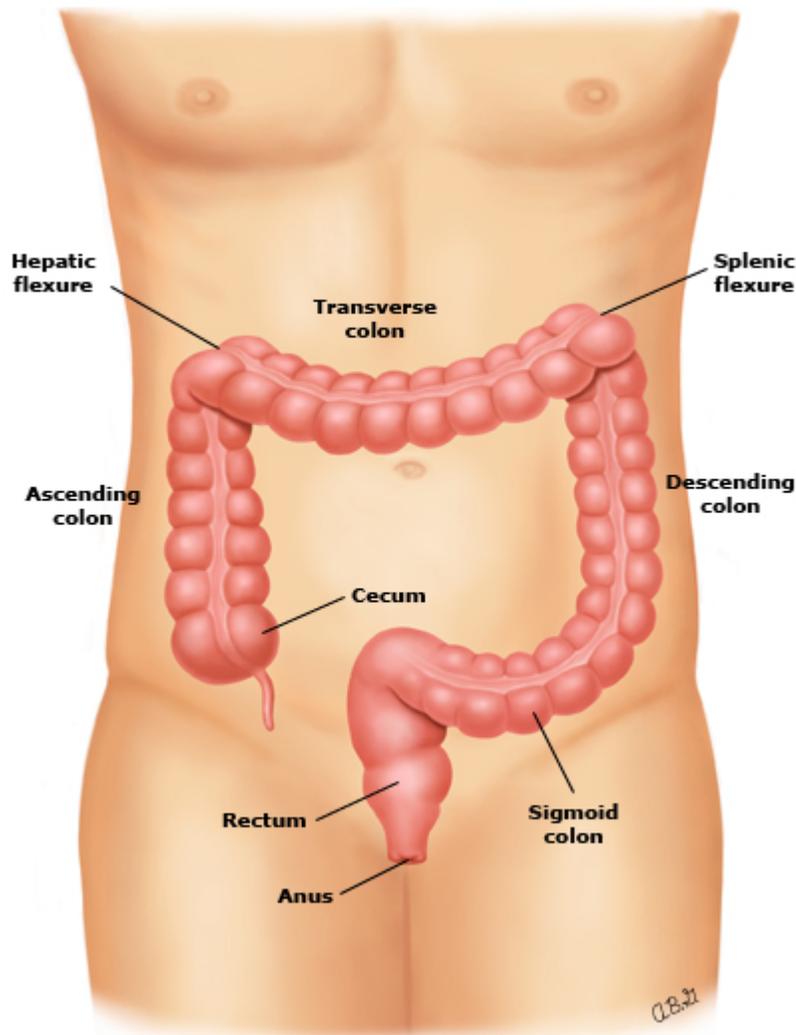
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## GRAPHICS

### Diagram of the colon and rectum

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This figure shows the different parts of the colon (also known as the large intestine), the rectum, and the anus.

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