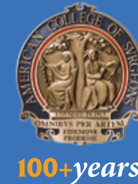
Colonoscopy



AMERICAN COLLEGE OF SURGEONS
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Highest Standards, Better Outcomes

Colonoscopy

Colonoscopy is a complete examination of the large intestine (colon). A flexible lighted tube fitted with a tiny camera is inserted through the anus.[1] The inside of the rectum and colon can be viewed for polyps, cancer, or diseases such as ulcerative colitis or Crohn's disease. Tissue and polyps can be removed during the procedure.

Reasons for a Colonoscopy

A **screening colonoscopy** is done to check for cancer and inflammatory diseases like ulcerative colitis. Most colorectal cancers (CRC) start as non-cancerous polyps (tiny, fast growing cells that may become cancer). Removing polyps or finding cancer at an early stage can increase your chances for a full recovery.[2] Your doctor may recommend screening for colon and rectal cancer starting at age 45. If you have risk factors it may be done before 45 years."[3] During the colonoscopy, polyps can be removed with tiny instruments such as snares or forceps.

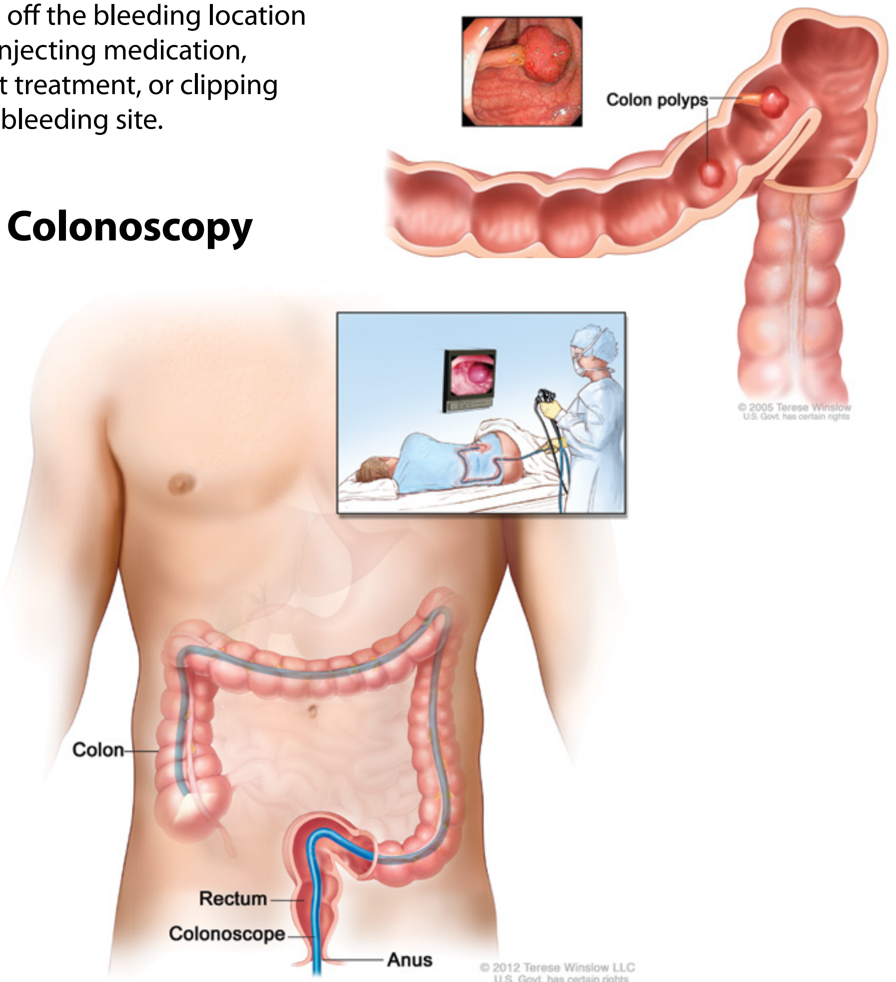
- In the U.S., CRC is the second leading cause of cancer death for both men and women. The lifetime risk of CRC is 1 in 23 (4.3%) for men and 1 in 25 (4%) for women.[4]
- The risk of developing CRC is increased if you have a first-degree relative (parent, sibling or child) who has had the disease; or if they were younger than 50 when they were diagnosed.[5]

A **diagnostic colonoscopy** is done to find the cause of anemia, a change in bowel habits, or abdominal pain.

A **therapeutic colonoscopy** can treat a known problem inside the colon such as bleeding or narrowing.

- For bleeding, your doctor may seal off the bleeding location by injecting medication, heat treatment, or clipping the bleeding site.
- Strictures (narrowing or partial blockage of colon) can be widened by inserting a balloon through the endoscope and inflating it inside the colon. A small stent (tube) may be left in the narrowed area to keep it open.

A **surveillance colonoscopy** is a follow-up for patients with a history of colon polyps, cancer, or inflammatory bowel disease.



SURGICAL PATIENT EDUCATION PROGRAM
Prepare for the Best Recovery

Procedure Options and Risks for Colorectal Screenings

SAMPLE

TEST	KEEPING YOU INFORMED	ACCURACY
Fecal occult blood testing (FOBT): Recommended every year	Stool is collected at home and sent to a lab. Avoid eating red meat, taking Vitamin C, eating foods containing Vitamin C (citrus and broccoli), or taking nonsteroidal anti-inflammatory drugs before the test.[6]	60% to 80% sensitive for detecting CRC located in the colon. This means that if 10 people had colon cancer, this test would show positive blood in 6-8 out of 10 of them. The cancer in the others may not be found by this test.[7]
Fecal immunochemical test (FIT): Recommended every year	Stool is collected at home and sent to a lab. You can eat your regular diet before the test. If blood is found, the test may be repeated and you may need a colonoscopy.	This at home test is highly sensitive and can detect colon cancer with 97% accuracy.[8]
Flexible sigmoidoscopy: Recommended every 5 years	The doctor inserts a scope and checks for polyps or cancer in the lower third of the colon. The procedure may be done in the office while you are fully awake. The rectum and lower colon must be clean of stool.*	Can find 70% of polyps or tumors. Only finds polyps in the lower half of the colon and not those in the top part. You may still be referred for a colonoscopy.
Multitargeted stool DNA test plus FIT test: Recommended every 3 years[9]	Combines a FIT test (above) with a test for DNA markers left in the stool.[9] Can be done with a single stool sample but involves collecting an entire bowel movement.	May detect up to 93% of cancerous lesions.[10]
Virtual colonoscopy (CT colonography): Recommended every 5 years	A CT scan with air inserted into the rectum through a tube before the scan. The procedure requires complete bowel preparation.*	May detect up to 94% of tumors 10 mm or larger; 65% of polyps 6 to 9 mm.[11] Polyps less than 6 mm may not be seen and a colonoscopy may still be necessary to remove them.[11]
Colonoscopy: Recommended every 10 years	The procedure is done in an outpatient or hospital facility and requires complete bowel preparation.* Sedation is usually given and you will need someone to drive you home.[11]	May detect 90-95% of polyps or tumors.[11] Polyp biopsy or removal can be done.

**See complete bowel prep instructions on the insert of this brochure*

Colonoscopy Benefits and Risks

Benefits—A colonoscopy is the most accurate way to find and remove small polyps. Removing polyps at an early stage can decrease your risk of death from colon and rectal cancer.[1] **American Cancer Society Guidelines: 45 years old for average risk; 40 for increased risk[12]**

THE RISK	WHAT HAPPENS	KEEPING YOU INFORMED
Perforation of the intestine	A hole made by pressure from the scope that passes through the entire wall of the colon is a rare complication. Rates of perforation from colonoscopy are rare with 3 events per 10 000 colonoscopies.[13]	A large perforation noticed immediately requires surgery. A small perforation noticed the first few days after the procedure may be treated with rest, fluids, antibiotics, and close observation.
Bleeding	Major bleeding was reported in 14.6 cases per 10,000 colonoscopies.[14] The risk is increased when many or a large polyp is removed.	A small amount of bleeding may occur after colonoscopy. Call your doctor if you notice more than four tablespoons of blood (one shot glass) with bowel movements within the first two weeks of your colonoscopy.
Cardiorespiratory	Minor changes in oxygen levels and heart rate occur in less than 1 of 1,000 cases.[15]	The majority of these events are related to sedation and increase with advanced age and other diseases.[16]
All complications	33% of patients report at least one minor symptom after colonoscopy, but serious complications are uncommon.[17]	Common symptoms are abdominal discomfort, cramping, diarrhea, some blood in the stool, and nausea from the medication used for sedation.

Expectations: Preparing for a Colonoscopy

The Procedure and Recovery

Common Colonoscopy Prep

It is very important that your colon be thoroughly cleaned before your colonoscopy. This will let the doctor see and remove colon polyps; small growths that may later turn into cancer. Colon cleansing is called a bowel preparation, or "prep." You will take a prescription of liquid medication that causes frequent, loose bowel movements that will empty the colon. You will also be advised to take a liquid diet only the day or two before the colonoscopy. This includes: fat-free bouillon or broth, gelatin in flavors such as lemon, lime, or orange (Avoid RED and BLUE), plain coffee or tea without cream or milk, sports drinks in flavors such as lemon, lime, or orange, strained fruit juice such as apple or white grape—avoid orange juice.[18] Your health care provider will advise you which prep to use—see *https://www.facs.org/education/patient-education/patient-resources/operations* for details.

You may have a "split dose bowel preparation.[18] The first half is taken the night before, and the second half is taken six hours before the procedure.

Prep examples include:

SuPrep: Sodium sulfate, potassium sulfate, and magnesium sulfate. Take two 12-ounce doses, each followed by a quart of water.

Prepopik: Sodium picosulfate, magnesium oxide, and citric acid. Take two 5-ounce doses, the first followed by five 8-ounce servings of clear liquid; the second followed by three 8-ounce servings of clear liquid.

MoviPrep: Polyethylene glycol, sodium sulfate, sodium chloride, potassium chloride, sodium ascorbate, and ascorbic acid. Take two 1-liter doses, each followed by clear liquids as directed.

Magnesium citrate: Many over-the-counter brands. Take two 15-ounce doses. Some doctors add the laxative bisacodyl (Dulcolax).

Other preps include: GoLytely®, Colyte®, NuLytely®, TriLyte®; Contain Polyethylene glycol (PEG); HalfLytely® 2 liters of the PEG solution taken with another laxative.

Sports Drink and MiraLAX®: Dulcolax laxative tablets containing 5 mg of bisacodyl each, 1–8.3 oz. bottle Miralax (238 grams), and a 64 oz. clear liquid sports drink

Visicol® or OsmoPrep®: Sodium phosphate monobasic monohydrate and sodium phosphate dibasicanhydrous tablet.

Safety Check

If you are having the procedure done in a hospital or ambulatory center, an identification bracelet with your name will be placed on your wrist. This should be checked by all health care team members before providing any procedure or giving you medication.

Sedation

You will be placed on your side usually with your knees drawn toward your chest. You will be given medication usually though an IV line to help you relax and remain comfortable. Your breathing and heart rate will be watched during the procedure. You may or may not fall completely asleep, but most patients will not remember their colonoscopy. Talk to your doctor about the type of sedation and side effects. Common drugs are benzodiazepines (midazolam/Versed); opioids (Fentanyl®), and other agents (Propofol)®.

The Procedure

Your doctor will guide a scope that is inserted into the anus and passed up to the colon. Small amounts of air are inserted to open the colon and allow viewing of the surrounding area. The tube has a light and camera at the end and sends a picture to a TV screen. Your heart rate, breathing, and oxygen level will be monitored during the exam.

The procedure will take about 15 to 60 minutes. Any abnormal tissue or polyps will be removed and checked for cancer.

Your Recovery

You will be monitored until you are fully awake. Most patients can go home within 30 to 90 minutes.

If you receive sedation or relaxation medication, you may feel tired and groggy. You should not make any big decisions, drive, or return to work for the rest of the day.

Diet

You may be eager to eat a large meal after fasting, but it is a good idea to start with light meals and ease into solid food for the first day.[19]

Pain

Severe pain is rare after the procedure. You may have minor cramping and gas; after you pass gas, the cramping should be gone.

Bowel Movements

You should return to your normal bowel pattern within 2 to 3 days after your procedure.

If you had a biopsy or polyps removed, your doctor will let you know:

- When and how you will be informed about your results.
- If you need to avoid aspirin or ibuprofen for 10 days after the procedure.

SAMPLE

More Information

For more information, please go to the American College of Surgeons Patient Education Website at *facs.org/patienteducation.*

When to Contact Your Surgeon

Call your doctor if you have:

- Severe abdominal pain or if your abdomen feels hard; this could be a symptom of colon perforation
- Bleeding for more than 2 bowel movements or bright red bleeding that fills a shot glass
- Fever greater than 100.4°F or 38°C
- Swelling, redness, or drainage at the IV site
- Weakness, shortness of breath, or fainting
- Nausea or vomiting blood

MY COLONOSCOPY PREP IS:

When should I take this?

I should stop eating at this time the morning of my procedure:

OTHER INSTRUCTIONS:

FOLLOW-UP APPOINTMENTS

Who:

Date:

Phone:

GLOSSARY

Crohn's disease: An inflammatory bowel disease that can cause inflammation and narrowing along the gastrointestinal tract.

Ulcerative colitis: A disease that causes inflammation (redness and swelling) of the colon and rectum.

DISCLAIMER

The American College of Surgeons (ACS) is a scientific and educational association of surgeons that was founded in 1913 to improve the quality of care for the surgical patient by setting high standards for surgical education and practice. The ACS endeavors to provide procedure education for prospective patients and those who educate them. It is not intended to take the place of a discussion with a qualified surgeon who is familiar with your situation. The ACS makes every effort to provide information that is accurate and timely, but makes no guarantee in this regard.

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The information provided in this brochure is chosen from recent articles based on relevant clinical research or trends. The research listed below does not represent all of the information that is available about your procedure. Ask your doctor if he or she recommends that you read any additional research.

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