Patient Education

Partners in Your Surgical Care

Colonoscopy

Colonoscopy is a procedure to look at the inner lining of your large intestine (colon).

American College of Surgeons
Inspiring Quality:
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Patient Education

This educational information is provided to make you more informed and to empower you with the skills and knowledge needed to actively participate in your care.

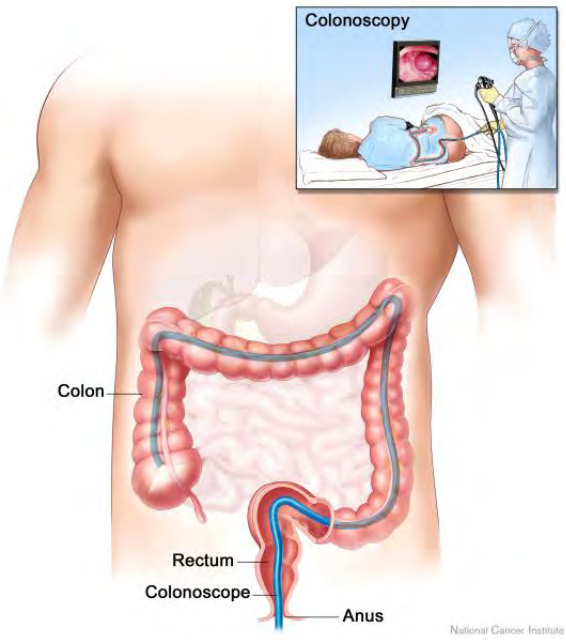
Keeping You Informed

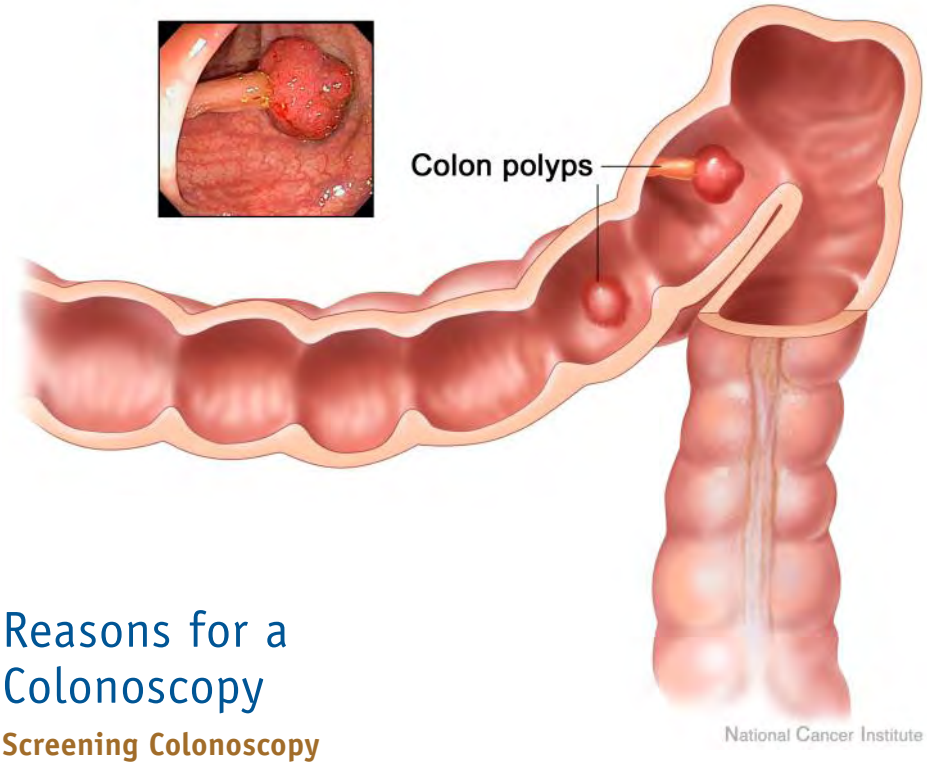
Information that helps you understand your procedure and role in healing.

Education is provided on:

Colonoscopy

A flexible lighted tube fitted with a tiny video camera on the end is inserted into the rectum. The inside of the rectum and entire colon can be viewed for polyps, cancer, or diseases such as ulcerative colitis or Crohn's disease.





Reasons for a Colonoscopy

Screening Colonoscopy

Most colorectal cancers start as non-cancerous polyps (fast growing cells that line the inside of the colon and may become cancer). A screening colonoscopy can find and often remove the polyps before they develop into cancer. If cancer is already present, finding it early, before it causes symptoms or spreads, can increase your chances of a full recovery.[1,2]

Therapeutic Colonoscopy[3]

- A therapeutic colonoscopy is performed to treat a known problem, such as cancer, polyps, or bleeding.
- A biopsy (tissue sample) is taken with tiny forceps that grab and trap small pieces of tissue.
- Polyps may be removed with a wire snare or forceps.
- For bleeding, your doctor may seal off the bleeding site by injecting medication, heat treatment, or clipping the bleeding site.
- For strictures (narrowing or partial blockage of colon), a balloon is inserted through the endoscope and is inflated inside the colon. This process widens the stricture. If needed, a small stent (tube) may be left in the narrowed area to keep it open.

Surveilance colonoscopy

- Follow-up for patients with a history of colon polyps, cancer, or inflammatory bowel disease.

Other Procedure Options

(see glossary)

- Sigmoidoscopy
- Virtual colonoscopy (colonography)
- Barium enema
- Fecal occult blood
- DNA stool test

Benefits and Risks

Keeping You Informed

Reasons for a Screening Colonoscopy

- Starting at age 50, for persons with average risk, the American Cancer Society recommends a colonoscopy every 10 years or sigmoidoscopy every 5 years and screening for fecal occult blood (blood in your stool) every year. A colonoscopy can prevent 76% to 90% of colon cancer.[1, 2]
- The lifetime risk of developing colorectal cancer is about 1 in 19 (5.4%). The risk is slightly higher for men. Regular exercise, maintaining a healthy weight, eating fruits and vegetables, and limiting alcohol consumption may decrease your risk of colon cancer.
- The risk for colon cancer is increased if you have ulcerative colitis, or Crohn's disease, or a mother, father, or sibling with colorectal cancer[4]

Sensitivity of tests[2]

- Fecal occult blood testing has a sensitivity of 40%–60% when done on a yearly basis. This means that if 10 people had colon cancer, this test would show positive blood in 4–6 of the 10. The others would have cancer, but it would not be detected.
- Sigmoidoscopy has a sensitivity of 70%–80%, but can only identify polyps or tumors in the lower half of the colon and rectum.
- Colonoscopy has a sensitivity of 90%.

Benefits

A colonoscopy is the most accurate way to find and remove small polyps and get a biopsy. If you do not have a colonoscopy, polyps or cancer may not be identified until a more advanced stage.[4,5]

Risks

Your doctor will do everything possible to decrease risks, but colonoscopy and sigmoidoscopy, like all procedures, have risks.

The Risk	What Happens	Keeping You Informed
Perforation	Perforation (hole that passes through the entire wall of the colon) is reported in 0 to 2 per 1,000 procedures. The risk can increase for therapeutic procedures. Pressure from the scope, a tear when air is inserted, and polyp removal can cause perforation.[6-12]	Management of perforation depends on the size, whether it's noticed immediately or later, and how you are feeling overall. A large perforation noticed immediately requires surgery. A perforation noticed several days later is treated by rest, intravenous fluids, antibiotics, and close observation. It may also require an operation. Call your doctor if you have fever, abdominal tenderness, or shortness of breath.[3]
Bleeding	Bleeding is reported in 0 to 4 per 1,000 procedures. The risk is greater with large polyp removal.[6-9]	A trace of blood is normal. If there is over 4 tablespoons of bleeding, call your doctor immediately. You will be watched carefully and may be given blood. Surgery is rarely necessary.
Cardiorespiratory	Complications during the procedure can include irregular heart beat (1 per 1,000), low heart rate (8 per 1,000), low blood pressure (12 per 1,000), low oxygen levels (56 per 1,000), and heart attacks and stroke (fewer than 1 per 1,000).[6-9]	Cardiorespiratory complications are usually related to medicine given to keep you comfortable during the procedure. Your doctor will monitor your heart rate, breathing, and oxygen levels. Oxygen and intravenous fluids will be given if needed.
Death	No deaths are reported for screening or therapeutic colonoscopy since 2000.[6-11]	There is a small risk of death (1 per 10,000) with a therapeutic colonoscopy (a colonoscopy for treatment of disease or bleeding).[6-12]

Expectations and Recovery

Before the procedure

Pre-colonoscopy evaluation includes your history, current medications, and allergies. It is important to let your doctor know if you are taking any blood thinners (Plavix, aspirin, coumadin) vitamins, herbs, or iron.

Bowel preparation—The bowels need to be clean (removed of food and stool) before the procedure. You should only drink clear liquids (examples include broth, apple juice, and tea) for 12 to 24 hours before your test. Drink nothing 4 hours before your test. If stool is left in the bowel, your doctor may have to reschedule the test.

Preparation Instructions

Carefully follow the prep instructions provided by your doctor.

The day of your procedure

You will be placed on your side and given medicine, through an intravenous line to help you relax. You will lie on your side, usually with your knees drawn towards your chest. Your doctor will guide a scope that is inserted into the anus and passed up through 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 pictures to a TV screen.

Your heart rate, breathing, and oxygen level will be monitored during the exam. The procedure will take about 20 to 60 minutes. If your doctor sees abnormal tissue or polyps, they may be removed or biopsied.

Your recovery

You will be monitored until you are fully awake. Without complications you are usually discharged home within 30 to 90 minutes.

If you receive sedation or relaxation medication you will need someone to drive you home. You may feel groggy and it is recommended that you do not make any big decisions, drive, or return to work for the rest of the day.

Diet—Though you may be eager to eat after fasting, it is a good idea to start with soft foods for your first meal.

Pain—Severe pain is rare after the procedure.[6,7] You may have minor cramping and gas after the procedure. After you pass gas, the cramping should be gone.

Bowel movements—You should return to your normal bowel movement 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, ibuprophen, or other blood thinners for 10–14 days after the procedure.

When to Call Your Doctor

Call Doctor _____ at _____ 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 (38° C)
- swelling, redness, or drainage at the intravenous site
- weakness, shortness of breath, or fainting
- nausea or vomiting blood

Keeping You Informed

Your medicine

If you take medication each day, ask your doctor what medications you should take on the day of the procedure. Usually you will take your regular medication with a small sip of water.

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

If you receive sedation or anesthesia for your procedure, talk to your doctor about the type of sedation and side effects. Common drugs include benzodiazepines (midazolam/ Versed), opioids (Fentanyl), and other agents (Propofol).[13]

If sedated, you will be monitored by your doctor and another health care provider. A clip will be placed on your finger that will measure your heart rate and oxygen levels. Your blood pressure and heart activity may also be monitored.

Other Instructions:

Follow-Up Appointments

Who	Date	Phone

For More Information

Keeping you Informed

Glossary

Barium enema is a procedure where barium (liquid dye) is put into the rectum and colon. X rays are then taken to find any abnormal areas.

Crohn's Diesease is an inflammatory bowel disease that causes swelling and ulcers of the entire gastrointestinal system.

DNA stool test is a screening test to check stool for genetic DNA markers associated with colorectal cancer and precancerous polyps. A whole bowel movement (stool) is collected in a container and sent for testing.

Fecal occult blood test is a test to check stool for blood. Small swabs of stool are placed on a special card and brought to a doctor for testing.

Sigmoidoscopy is a procedure which views only the inside of the rectum and sigmoid (lower) colon.

Ulcerative colitis is a disease that causes inflammation (redness and swelling) of the colon and possible bloody diarrhea.

Virtual colonoscopy (colonography) is a special computed tomography (CT) scan with the colon filled with air. The scan may show polyps and other abnormalities on the inside of the colon. It is less accurate than a colonoscopy and does not allow for treatment of polyps or other abnormalities.

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

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.

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Disclaimer

This information is published to educate you about your specific surgical procedures. It is not intended to take the place of a discussion with a qualified surgeon who is familiar with your situation. It is important to remember that each individual is different, and the reasons and outcomes of any operation depend upon the patient's individual condition.

The American College of Surgeons is a scientific and educational organization that is dedicated to the ethical and competent practice of surgery; it was founded to raise the standards of surgical practice and to improve the quality of care for the surgical patient. The ACS has endeavored to present information for prospective surgical patients based on current scientific information; there is no warranty on the timeliness, accuracy, or usefulness of this content.