

Patient Education

Colon and rectal cancer screening

The Basics

Written by the doctors and editors at UpToDate

What is colon and rectal cancer screening? -

Colon and rectal cancer screening is a way that doctors check the colon and rectum for signs of cancer or growths (called polyps) that might become cancer. It is done in people who have no symptoms and no reason to think that they have cancer. The goal is to find and remove polyps before they become cancer, or to find cancer early before it grows, spreads, or causes problems.

The colon and rectum are the last part of the digestive tract (figure 1). When doctors talk about colon and rectal cancer screening, they use the term "colorectal." That is just a shorter way of saying "colon and rectal." It's also possible to say just colon cancer screening.

Studies show that having colon cancer screening lowers the chance of dying from colon cancer. There are several different types of screening tests.

What are the different screening tests for colon cancer? -

They include:

- Colonoscopy Colonoscopy allows the doctor to see directly inside the entire colon. Before you have a colonoscopy, you must clean out your colon. You do this at home by drinking a special liquid that causes watery diarrhea for several hours. On the day of the test, you get medicine to help you relax, if you want. Then, a doctor puts a thin tube into your anus and advances it into your colon (figure 2). The tube has a tiny camera attached to it, so the doctor can see inside your colon. The tube also has tiny tools on the end, so the doctor can remove pieces of tissue or polyps if needed. After polyps or pieces of tissue are removed, they are sent to a lab to be checked for cancer.
- Advantages of this test Colonoscopy finds most small polyps and almost all large polyps and cancers. If found, polyps can be removed right away. This test gives the most accurate results. If any other screening tests are done first and come back positive (abnormal), you will need a colonoscopy for follow-up. If you have a colonoscopy as your first test, you will probably not need a second follow-up test soon after.
- Drawbacks to this test Colonoscopy has some risks. It can cause bleeding or tear the inside of the colon, but this only happens in 1 out of 1000 people. Also, cleaning out the bowel beforehand can be unpleasant. Plus, people usually cannot work or drive for the rest of the day after the test, because of the relaxation medicine that they take during the test.

In certain situations, a doctor might do something called a "capsule" colonoscopy. For this test, you swallow a special capsule that contains tiny wireless video cameras. This might be done if your doctor was not able to see all of your colon during a regular colonoscopy.

- CT colonography (also known as virtual colonoscopy or "CTC") CTC looks for cancer and polyps using a special X-ray called a "CT scan." For most CTC tests, the preparation is the same as for colonoscopy.
- Advantages of this test CTC can find polyps and cancers in the whole colon without the need for medicines to relax.
- Drawbacks to this test If doctors find polyps or cancer with CTC, they usually follow up with a colonoscopy. CTC sometimes finds areas that look abnormal but turn out to be healthy. This means that CTC can lead to tests and procedures that you did not need. Plus, CTC exposes you to radiation. In most cases, the

preparation needed to clean the bowel is the same as for colonoscopy. The test is expensive, and some insurance companies might not cover it for screening.

- Stool test for blood "Stool" is another word for bowel movements. Stool tests most commonly check for blood in samples of stool. Cancers and polyps can bleed, and if they bleed around the time that you do the stool test, blood will show up on the test. The test can find even small amounts of blood that you can't see in your stool. Other less serious conditions can also cause small amounts of blood in stool, and that will show up in this test, too. You collect small samples from your bowel movements, and put them in a special container that you get from your doctor or nurse. Then, you follow the instructions to mail the container out for the testing.
- Advantages of this test This test does not involve cleaning out the colon or having any procedures.
- Drawbacks to this test Stool tests are less likely to find polyps than other screening tests. These tests also
 often turn out abnormal even in people who do not have cancer. If a stool test shows something abnormal,
 doctors usually follow up with a colonoscopy.
- Sigmoidoscopy A sigmoidoscopy is similar to a colonoscopy. The difference is that this test looks only at the last part of the colon, while a colonoscopy looks at the whole colon. Before you have a sigmoidoscopy, you must clean out the lower part of your colon using an enema. This bowel cleaning is not as thorough or unpleasant as the one for colonoscopy. For this test, you do not need to take medicines to help you relax, so you can drive and work afterward if you want.
- Advantages of this test Sigmoidoscopy can find polyps and cancers in the rectum and the last part of the colon. If polyps are found, they can be removed right away.
- Drawbacks to this test In about 2 out of 10,000 people, sigmoidoscopy tears the inside of the colon. The test also can't find polyps or cancers that are in the part of the colon that the test does not view (figure 3). If doctors find polyps or cancer during a sigmoidoscopy, they usually follow up with a colonoscopy.
- Stool DNA test The stool DNA test checks for genetic markers of cancer, as well as for signs of blood. For this test, you get a special kit to collect a whole bowel movement. Then, you follow the instructions about how and where to ship it.
- Advantages of this test This test does not involve cleaning out the colon or having any procedures. When
 cancer is not present, it is less likely to be falsely abnormal than a stool test for blood. That means it leads to
 fewer unnecessary colonoscopies.
- Drawbacks to this test It might be unpleasant to collect and ship a whole bowel movement. If a DNA test shows something abnormal, doctors usually follow up with a colonoscopy.

There is no blood test that most experts think is accurate enough to use for screening.

How do I choose which test to have? -

Work with your doctor or nurse to decide which test is best for you. Some doctors might choose to combine screening tests, for example, sigmoidoscopy plus stool testing for blood. Being screened, no matter how, is more important than which test you choose.

Who should be screened for colon cancer? -

Doctors recommend that most people begin having colon cancer screening at age 45. People who have an increased risk of getting colon cancer sometimes begin screening at a younger age. That might include people with a strong family history of colon cancer, and people with diseases of the colon called "Crohn's disease" and "ulcerative colitis."

Most people can stop being screened around the age of 75 or, at the latest, 85.

How often should I be screened? -

That depends on your risk of colon cancer and which test you have. People who have a high risk of colon cancer often need to be tested more often and should have a colonoscopy.

Most people are not at high risk, so they can choose 1 of these schedules:

• Colonoscopy every 10 years

- CT colonography (CTC) every 5 years
- Stool testing for blood once a year
- Sigmoidoscopy every 5 to 10 years
- Stool DNA testing every 3 years (but doctors are not yet sure of the best time frame for repeating this test)

All topics are updated as new evidence becomes available and our peer review process is complete.

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figure 1: Digestive system



This drawing shows the organs in the body that process food. Together, these organs are called the "digestive system" or "digestive tract." As food travels through this system, the body absorbs nutrients and water. The liver, pancreas, and gallbladder are also part of the digestive system (not shown in this drawing).

Graphic 66110 Version 7.0

figure 2: Colonoscopy



During a colonoscopy, you lie on your side or back and the doctor puts a thin tube with a camera into your anus (from behind). Then, the doctor advances the tube into the rectum and colon. The camera sends pictures from inside your colon to a screen.

Graphic 52258 Version 9.0

figure 3: Colonoscopy versus sigmoidoscopy



During a colonoscopy or a sigmoidoscopy, you lie on your side. The doctor puts a thin tube with a camera into your anus (from behind). The tube is called a "scope." The doctor then moves the scope up into the rectum and colon. The camera sends pictures from inside your colon to a screen for the doctor to see.

A **colonoscopy** allows the doctor to see the whole colon (shown in pink and green). A **sigmoidoscopy** allows the doctor to see only part of the colon (shown in only green, up to the arrow).

Graphic 58734 Version 7.0

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