



Virtual Colonoscopy (CT Colonography)

What Are the Risks and Benefits Compared to Traditional Colonoscopy?

Virtual colonoscopy uses low radiation dose equal to about a year of radiation we all get from environmental sources. Long-term risk of low-dose radiation is unclear. However, the American Association of Physicists in Medicine considers risk from dose levels, such as those used in the virtual exam, to be very small.

In traditional colonoscopy a long tube (colonoscope) is maneuvered from the rectum to the beginning of the colon. There is a small risk of colon perforation from this — approximately 1 patient per 1,000 standard colonoscopies.

In virtual colonoscopy, only a very small flexible tip is placed into the rectum to gently inflate the colon. The risk of perforation from the virtual colonoscopy is far lower.

Traditional colonoscopy is most often performed with sedation, which carries risk of allergic reaction and other side effects. Virtual colonoscopy does not require sedation. Most patients can go back to their daily activities. Former President Obama had his first colorectal cancer screening using virtual colonoscopy.

Unlike standard colonoscopy, the virtual exam can detect unsuspected medical problems outside the colon. While only 1 in 300 patients who get screening virtual colonoscopy will have colon cancer, up to 1 in 200 patients have been shown to have an unsuspected kidney, lung or lymph node cancer. Some of these incidental findings will require additional imaging tests, which may be associated with additional costs.



Virtual colonoscopy is a safe, effective and minimally invasive imaging scan used to screen people for colorectal cancer.

This brochure answers common questions about virtual colonoscopy — also known as CT colonography (CTC).



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What Is a Virtual Colonoscopy?

Virtual colonoscopy is a computed tomography (CT) scan that can produce three-dimensional (3D) and moving images of the colon. Doctors examine these images for colorectal cancer and precancerous polyps. The exam generally takes about 10 minutes. It does not require sedation. Afterward, you can go back to daily activities.



Colorectal Cancer

Colorectal cancer is the second leading cause of cancer death in the U.S. when men and women are combined. Each year, about 150,000 people are diagnosed and 50,000 people die from colorectal cancer.

Most colorectal cancers begin as small polyps on the colon surface. Virtual colonoscopy can find these polyps while they are small and harmless and also identify cancers early when they are most treatable.

How Accurate Is Virtual Colonoscopy?

Virtual colonoscopy is comparably accurate to a standard colonoscopy for people at average risk for colorectal cancer. That is most people. Those at high risk for the disease due to a family history or other factors should have the standard colonoscopy.

Who Should Have a Virtual Colonoscopy?

The American Cancer Society (ACS) and other medical organizations recommend that those at average risk for colorectal cancer begin screening at age 45. Virtual colonoscopy is an ACS recommended screening exam to be done every five years for those at average risk. The virtual exam may also be an option for those at increased risk who can't physically tolerate a colonoscopy.

Where Should I Have My Virtual Colonoscopy?

Look for a facility accredited in CT by the American College of Radiology® (ACR®). Contact those facilities and ask if they offer virtual colonoscopy. Most large hospitals will offer this test. Your primary care physician or specialist may be able to assist you as well.

What Can I Expect Before, During and After My Virtual Colonoscopy?

Bowel clearing is required to remove stool prior to the exam. A small, flexible tube is placed in the rectum to gently inflate the colon with air or carbon dioxide. This gas is safely absorbed by the body or breathed out. Two scans are performed, one lying on your back — a second on your stomach or side. Each takes about 10 seconds. You can then get dressed and go about your day.

Will Insurance Cover My Virtual Colonoscopy?

The Affordable Care Act (ACA) requires private insurers to fully cover CT colonography. Many insurers — including CIGNA, UnitedHealthcare and Anthem Blue Cross Blue Shield cover these exams irrespective of ACA requirements. The ACR continues to communicate with the Centers for Medicare and Medicaid Services on Medicare coverage of screening CT colonography.



For more information on virtual colonoscopy, visit RadiologyInfo.org/VirtualCT.