

Virtual Colonography

Radiologists at the VCU Medical Center were among the first in Virginia to develop, test and adopt for routine use a more patient-friendly way to screen for colon polyps and colon cancer. The noninvasive treatment procedure known medically as - **Virtual Colonography (VC) or CT Colonography (CTC)** - uses computed tomography (CT) scanning to determine whether or not colon polyps are present. Because Virtual Colonography does not require the use of a colonoscope as in a conventional colonoscopy procedure, it is sometimes referred to as a “Virtual Colonoscopy”.

What makes Virtual Colonography an ideal option for screening?

Because the procedure is noninvasive, safe, quick (lasting only a few minutes), and does not require sedation, Virtual Colonography is an excellent screening technology, and often preferred by patients over the conventional or standard colonoscopy. There are no risks of complications such as bowel perforation or complications from sedation associated with standard colonoscopy. Patients may return to their usual activities as soon as the test is over.

Virtual Colonography also allows for evaluation of the entire colon, something a standard colonoscopy may not be able to do in all cases because normal twists and turns in the large intestines make navigating the colonoscope difficult. Virtual Colonography is accurate in identifying significant polyps and offers an alternative screening option for those who are simply not willing to undergo conventional colonoscopy, which is invasive, can be uncomfortable, and requires sedation.

How accurate is Virtual Colonography compared to conventional colonoscopy?

Early studies show that Virtual Colonography is comparable to conventional colonoscopy in terms of identifying polyps six millimeters or greater in size. Physicians at VCU Medical Center use this procedure as a diagnostic tool to confirm or rule out the possibility of cancer. If large polyps are identified, conventional colonoscopy is required for biopsy and removal.

What can I expect when I have a Virtual Colonography?

Patients having a Virtual Colonography will undergo bowel preparation one day prior to the exam - similar to that for a standard colonoscopy except that the prep does not require drinking large volumes of liquid. The procedure itself involves having the patient lie on the CT scan table while the colon is partially inflated

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with air using a tiny air tube. Two 5-second CT scans are performed, one with the patient lying on their back and the other with the patient lying on their stomach. The examination is completed in less than five minutes. No sedation is required for this screening method.

Using data acquired from the CT scans, two-dimensional and three-dimensional images of the colon are obtained. Virtual Colonography relies on specially developed computer software to recreate the inside of the patient's colon, allowing for a close visual evaluation of the colon that provides the precise location and size of colon polyps or masses.

Why is it so important to be screened?

Research shows that less than 40 percent of those who should be screened for colon cancer prevention actually do so. Left undetected, colon polyps larger than 7 to 10 millimeters are at risk of developing into colon cancer. If polyps are removed early on, colon cancer is preventable.

According to the American Cancer Society, cancers of the colon and rectum combined are the second leading cause of cancer-related deaths overall and the third most common cancer for men and women. Screening and early removal of colon polyps can prevent the development of cancer. Although there are high-risk determinants, 75 percent of all colon cancer cases occur in people with no known predisposing factors.

For more information or to schedule an appointment call (804) 828-4467.