Virtual Colonoscopy (CT Colonography)

A referral is required from a primary care physician or specialty provider. Call the UW Virtual Colonoscopy Program office at (608) 263-9630, for more information.

What is virtual colonoscopy (CT colonography)?

Three-dimensional (3-D) virtual colonoscopy, or CT colonography, offers patients another choice for colorectal cancer screening that is both less invasive and less time-consuming than the conventional screening method. Our technique utilizes CT scan technology and the only FDA-approved evaluation software for virtual colonoscopy screening, which allows radiologists to “fly” through the interior of the colon without having to insert an actual scope. Virtual colonoscopy is sensitive for detecting significant polyps that may become cancerous. Virtual colonoscopy is also a recognized effective option by the American Cancer Society for screening against this deadly, yet preventable disease.
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Who is a candidate for this procedure?

Screening virtual colonoscopy

- Adults who are age 50 or older (screening may begin earlier if a first-degree relative has been previously diagnosed with colon cancer).
- Patients with medical conditions that increase the risk for conventional (optical) colonoscopy or intravenous sedation.
- Patients on anticoagulation therapy.

Diagnostic virtual colonoscopy

- Patients with gastrointestinal symptoms (e.g., significant change in bowel habits, rectal bleeding, history of colonic polyps, etc.).
- Patients with prior incomplete colonoscopy or sigmoidoscopy.
- Patients with obstructing colorectal cancer.
- Patients with a submucosal lesion found on another test (e.g., conventional colonoscopy) that requires further evaluation.

Who is not an ideal candidate?

- This exam should not be performed on patients with acute diverticulitis until 4-6 weeks after treatment is completed and symptoms resolve.
- This exam is not recommended for patients with active inflammatory bowel disease such as ulcerative colitis or Crohn’s disease. This is not an absolute contraindication and virtual colonoscopy can be performed if the patient has had an incomplete colonoscopy or if they refuse a more invasive test for colorectal screening.

What potential benefits does virtual colonoscopy offer?

- A safe and effective method for detecting significant colorectal polyps.
- For screening patients, essentially no risk of bleeding or perforation.
- The entire procedure takes approximately 15 minutes.
- No need for intravenous sedation; patients can immediately return to normal activities.
- No need for a driver.
- Can safely continue anticoagulation therapy.
- Less costly than conventional colonoscopy.
- Same-day GI Clinic services are available to remove significant polyps (performed in < 10% of cases).
- Less invasive surveillance with virtual colonoscopy is offered for small polyps (< 1 cm).
- A limited, 2-D evaluation of the entire abdomen and pelvis, which may detect other conditions outside the colon.
- Convenient locations include the Digestive Health Center, East Clinic, Research Park Clinic, 1 S. Park Clinic and UW Hospital and Clinics.
- UW Health’s Radiologists are active in research to enhance the field of virtual colonoscopy and colorectal cancer screening, including Dr. Pickhardt, the national leading medical expert on virtual colonoscopy.
- First program in the United States to obtain 3rd party reimbursement for screening virtual colonoscopy.

For more information, please call the UW Virtual Colonoscopy Program office at (608) 263-9630 or visit uwhealth.org/virtualcolonoscopy

UW Hospital and Clinics, 600 Highland Avenue, Madison, WI 53792
1 S. Park Clinic, 1 S. Park Street, Madison, WI 53715
UW Health East Clinic, 5249 East Terrace Drive, Madison, WI 53718
Digestive Health Center, 750 University Row, Madison, WI 53705
Research Park Clinic, 621 Science Drive, Madison, WI 53711

Figure 1: 3-D virtual colonoscopy study showing a large pedunculated polyp.

Figure 1A: 3-D map of the colon from screening virtual colonoscopy. The green line shows the automated centerline used for virtual “fly-through.”

Figure 1B: 3-D endoluminal virtual colonoscopy image shows a large pedunculated polyp on a long stalk within the sigmoid colon.

Figure 1C: Cross-sectional 2-D image confirms the polyp, which was removed at same-day conventional colonoscopy and proved to be a tubulovillous adenoma.