



**COMPUTED TOMOGRAPHY COLONOGRAPHY  
(VIRTUAL COLONOSCOPY)  
HS-050**



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**Computed Tomography  
Colonography  
(Virtual Colonoscopy)**

**Policy Number: HS-050**

**Original Effective Date: 9/18/2008**

**Revised Date(s): 5/15/2009; 1/21/2010;  
1/21/2011; 1/5/2012**

**DISCLAIMER**

The Clinical Coverage Guideline is intended to supplement certain standard WellCare benefit plans. The terms of a member's particular Benefit Plan, Evidence of Coverage, Certificate of Coverage, etc., may differ significantly from this Coverage Position. For example, a member's benefit plan may contain specific exclusions related to the topic addressed in this Clinical Coverage Guideline. When a conflict exists between the two documents, the Member's Benefit Plan always supersedes the information contained in the Clinical Coverage Guideline. Additionally, Clinical Coverage Guidelines relate exclusively to the administration of health benefit plans and are NOT recommendations for treatment, nor should they be used as treatment guidelines. The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

**APPLICATION STATEMENT**

The application of the Clinical Coverage Guideline is subject to the benefit determinations set forth by the Centers for Medicare and Medicaid Services (CMS) National and Local Coverage Determinations and state-specific Medicaid mandates, if any.

**BACKGROUND**

The technique for computed tomography colonography (CTC) involves the following steps: (1) bowel cleansing; (2) colon insufflation; (3) image acquisition; and (4) image processing and interpretation (Isenberg et al., 2003). Patients undergo CTC in a radiology suite equipped with a computed tomography (CT) scanner and instrumentation for insufflating the colon with air or carbon dioxide. To obtain optimal images of the bowel lumen, the colon should be clean, dry, and distended as for standard colonoscopy. Before imaging, patients usually require a full, cathartic bowel preparation to cleanse the colon of residual stool, which can simulate or obscure polyps. Most clinicians recommend a 48-hour low-residue diet and an over-the-counter preparation of phospho-soda and bisacodyl, which leaves less residual fluid in the bowel compared with a polyethylene glycol electrolyte solution. Additionally, newer protocols may require barium and/or a water-soluble oral contrast to tag residual stool and opacify colonic fluid. The colon is then insufflated with room air via a rectal tube to the maximum level tolerated by the patient, and a scout film prior to full image acquisition confirms adequate insufflation. Carbon dioxide may be substituted for room air, which may reduce patient discomfort, but adds to the complexity and cost of the procedure.

Helical CT scanning is performed in a single breath-hold, usually using 5 mm collimation and reconstruction intervals of 2 mm to 3 mm with the patient in both the supine and prone positions to redistribute the gas into segments of the colon that may have collapsed. New multidetector (4, 8, or 16 channel) CT scanners can scan faster (less than 15 seconds, which means a shorter breath-hold), and use thinner reconstruction intervals and collimations for finer anatomic detail and higher-resolution imaging. "Electronic cleansing" can be achieved by using software that digitally removes any opacified residual colonic fluid from CT scans. The data from the CT scans are displayed as 2D and/or 3D images. The 3D rendered views of the colon simulate endoluminal views obtained during colonoscopy. Usually, but not always, 2D images on a computer workstation are used for lesion identification, and when a suspicious area is encountered, a 3D view can be used for further examination. To obtain the 3D view, the CT data are processed on the same workstation equipped with specialized software. The resulting virtual environment and endoluminal "fly-through" allow the radiologist to view the entire colon relatively quickly (typical reading times may be 10 minutes or less). This is advantageous, since helical CT technology produces so many slices that the reader needs the computer post-processing to efficiently analyze all the data. The 3D "virtual reality" environment also allows viewing of the hidden surfaces of folds and flexures from different angles. For example, using 2D and 3D images together allows differentiation between complex haustral folds and polyps, and between retained stool and polyps.

While CTC data sets can be evaluated using a primary 2D or a primary 3D approach, the alternate viewing technique must be available for rapid correlation and characterization of any suspicious findings. Furthermore, the combined use of both 2D and 3D visualization techniques most likely is superior to the evaluation of 3D or 2D views alone. There is no general consensus on whether a primary 2D or primary 3D approach should be used. Primarily, it depends on the radiologist's preferences and the capabilities of the workstation. Since sedation is not required during the CTC examination, the patient is free to leave the CT suite immediately, without the need for observation or recovery, and is able to resume normal activities such as eating, working, or driving. Although CT imaging takes less time than colonoscopy, CTC is a time-consuming process comprised of scanning (20 minutes), image processing (30 minutes), and image interpretation (20 minutes or longer). The time required to obtain CTC results may be shortened with the introduction of faster software and hardware, automated analysis, and increased practitioner experience. CTC usually is performed with the patient in both the prone and supine positions, because using both has been found to reveal the highest number of lesions. However, this doubles the radiation dose to the patient. Currently, CTC is performed with multi-detector row CT scanners, which tend to have a higher effective dose than single-dose CT scanners (from Hayes, 2008).

## POSITION STATEMENT

Virtual colonoscopy **is considered medically necessary** when the following criteria are met:

- 1) A diagnostic or surveillance instrument colonoscopy of the entire colon is incomplete due to the inability to fully pass the colonoscope proximally; **AND**,
- 2) A repeat attempt is not indicated; **AND**,
- 3) Member safety is at risk (see below); **AND**,
- 4) The incomplete colonoscopy is due to one of the following:
  - a. An obstructing neoplasm; **OR**,
  - b. Intrinsic scarring, stricture, aberrant anatomy, or obstruction from prior surgery, radiation, or diverticular disease; **OR**,
  - c. Extrinsic compression

NOTE: There are few absolute contraindications to instrument colonoscopy. Relative contraindications do not create medical necessity for using CT colonography as a screening procedure, and the above indications must still be met.

The following relative contraindications to instrument colonoscopy may be indications for CT colonography if well documented in the medical record and the member's primary physician and the colonoscopist agree on the increased risk to the member:

- Severe coagulopathy
- Long-term anticoagulation
- Increased sedation risk (such as from severe COPD or previous anesthesia adverse reaction).

CT colonography **is not medically necessary** when:

- Used for screening; **OR**,
- Used as an alternative to instrument colonoscopy for screening or in the absence of signs or symptoms of disease; **OR**,
- Used for screening, or in the absence of signs or symptoms of disease, regardless of family history or other risk factors for the development of colonic disease; **OR**,
- Following an incomplete colonoscopy if the reason for the colonoscopy is other than one of those described above.

## CODING

### Covered CPT® Codes when the above criterion are met

- 74261** Computed Tomographic (CT) colonography, *diagnostic*, including image postprocessing; without contrast material  
**74262** Computed Tomographic (CT) colonography, *diagnostic*, including image postprocessing; with contrast material(s) including non-contrast images, if performed

### Non Covered CPT® Codes

- 74263** Computed tomographic (CT) colonography, *screening* including image postprocessing

**ICD-9-CM Procedure Codes** - Not applicable

**HCPCS Level II © Codes** - Not applicable

**Covered ICD-9-CM Diagnosis Codes when the above criterion are met**

<b>153.0 - 153.8</b>	Malignant neoplasm of colon, hepatic flexure, transverse, descending, sigmoid, cecum, appendix, ascending, splenic flexure, or other specified site(s)
<b>154.0 - 154.8</b>	Malignant neoplasm of rectosigmoid junction, rectum, anal canal, anus and other specified site(s)
<b>197.5</b>	Secondary malignant neoplasm of large intestine or rectum
<b>211.3 - 211.4</b>	Benign Neoplasm of colon, rectum and anal canal
<b>230.3 - 230.6</b>	Carcinoma in situ of colon, rectum, anal canal or anus
<b>235.2</b>	Neoplasm of uncertain behavior of stomach, intestines, and rectum
<b>235.5</b>	Neoplasm of uncertain behavior of anal canal, sphincter or anus
<b>552.8</b>	Abdominal Wall hernia, obstructed (entrapment of colonic loops)
<b>560.2</b>	Volvulus
<b>562.10</b>	Diverticulosis of colon without hemorrhage
<b>562.11</b>	Diverticulitis of colon without hemorrhage
<b>532.12</b>	Diverticulosis of colon with hemorrhage
<b>562.13</b>	Diverticulitis of colon with hemorrhage
<b>555.9</b>	Ulcerative colitis or Crohn's disease
<b>560.81</b>	Postoperative Intestinal or peritoneal adhesions with obstruction
<b>560.89</b>	Other specified intestinal obstruction
<b>V10.05</b>	Personal history of malignant neoplasm, large intestine
<b>V10.06</b>	Personal history of malignant neoplasm, rectum, rectosigmoid junction and anus
<b>V12.72</b>	Personal History of colonic polyps
<b>V12.79</b>	Personal History of other diseases of digestive system
<b>V16.0</b>	Family history of Malignant Neoplasm of gastrointestinal tract.
<b>V18.51</b>	Family history of digestive disorders (familial adenomatous polyposis)
<b>V58.61</b>	Long-term (current) use of anticoagulants [that cannot be interrupted]
<b>V67.00</b>	Follow-up Exam following surgery, unspecified
<b>V67.01</b>	Follow-up Exam following radiotherapy

**Non-Covered ICD-9-CM Diagnosis Codes**

<b>556.9</b>	Toxic megacolon
<b>789.00 - 789.09</b>	Acute abdominal pain
<b>V76.41</b>	Special screening for malignant neoplasms; rectum
<b>V76.51</b>	Special screening for malignant neoplasms, colon

\*Current Procedural Terminology (CPT®) © 2012 American Medical Association: Chicago, IL.

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**Peer Reviewed**

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**Government Agencies, Professional and Medical Organizations**

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## HISTORY AND REVISIONS

Date	Action
1/5/2012	<ul style="list-style-type: none"><li>• Approved by MPC. No new changes. Reformatted references.</li></ul>
12/1/2011	<ul style="list-style-type: none"><li>• New template design approved by MPC.</li></ul>