



**Cohere Medical Policy -
Computed Tomography (CT), Colonography**
Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Diagnostic Imaging

Guideline Name: Cohere Medical Policy - Computed Tomography (CT), Colonography

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Medical Necessity Criteria

Service: Computed Tomography (CT), Colonography

Recommended Clinical Approach

The decision to utilize computed tomography (CT) colonography is determined by stratifying individuals into average, moderate, and high-risk categories. High-risk individuals are advised to undergo an optical colonoscopy without delay. The procedure should be conducted in a facility compliant with the standards of the American College of Radiology (ACR), and performed by a physician trained in CT colonography. Bowel preparation for CT colonography is akin to an optical colonoscopy.¹

Medical Necessity Criteria

Indications

→ **Computed tomography (CT) colonography** is considered appropriate if **ALL** of the following are **TRUE**:

- ◆ Colonoscopy is contraindicated or incomplete for **ANY** of the following reasons:
 - Prior optical colonoscopy was incomplete due to **ANY** of the following¹⁻⁵:
 - An obstructing neoplasm; **OR**
 - Intrinsic scarring; **OR**
 - Stricture; **OR**
 - Redundant or tortuous colon; **OR**
 - Spasm; **OR**
 - Obstruction from prior surgery, radiation, or diverticular disease; **OR**
 - Extrinsic compression; **OR**
 - The patient is at increased risk for complications during an optical colonoscopy when **ANY** of the following is **TRUE**¹:
 - Anticoagulant use that cannot be safely reversed before the procedure; **OR**
 - Coagulopathy; **OR**
 - Complications from prior optical colonoscopy; **OR**
 - Increased risk of bowel perforation; **OR**

- Sedation risk as indicated by an American Association of Anesthesiologists (ASA) Physical Status classification of IV or above⁶; **OR**
- The patient is 76 to 85 years of age, and medical necessity is determined based on symptoms or risk factors⁷; **OR**
- ◆ **ANY** of the following is **TRUE**:
 - Evaluation of a submucosal abnormality detected on colonoscopy or another imaging study²; **OR**
 - Screening for colorectal cancer if **ANY** of the following is **TRUE**:
 - Routine screening for an average-risk individual greater than or equal to 45 years old⁸⁻¹¹; **OR**
 - Prior CT colonography at least 5 years ago^{5,11}; **OR**
 - An incomplete optical colonoscopy has been attempted¹⁻⁵; **OR**
 - Optical colonoscopy cannot be performed⁵; **OR**
 - Surveillance in moderate and high-risk individuals as defined by **ALL** of the following:
 - Documented discussion with the patient on the inferiority of CT colonography in this setting; **AND**
 - **ANY** of the following is **TRUE**:
 - ◆ Biopsy-proven precancerous polyps on prior colonoscopy and **ANY** of the following is **TRUE**:
 - Evaluation 3 years after resection of newly diagnosed small (less than 5mm diameter) adenomatous polyps when only a single polyp was detected (after 1 negative 3-year follow-up examination subsequent surveillance intervals may be increased to 5 years¹²⁻¹³; **OR**
 - Evaluation at 1 and 4-year intervals after resection of multiple or large (greater than 10mm) adenomatous polyps (subsequent surveillance intervals may then be increased to every 5 years)¹²⁻¹³; **OR**
 - Evaluation in 1 year after the removal of multiple adenomas if **ANY** of the following is **TRUE**¹²⁻¹³:

- If examination proves to be negative, then repeat in 3 years; **OR**
- After 1 negative 3-year follow-up examination, repeat exam every 5 years; **OR**
- ◆ A first-degree relative before age 60 or two first-degree relatives at any age with CRC or an advanced adenoma every 5 to 10 years starting at age 40 to 50 years of age or 10 years younger than the affected relative's age¹⁴; **OR**
- ◆ Prior therapeutic abdominal or pelvic radiation - every 5 years beginning at age 35 for at-risk survivors or 10 years after the completion of radiotherapy (whichever occurs last)¹⁵; **OR**
- ◆ Personal or family history (first or second-degree relative) of hereditary syndromes that do NOT cause polyposis, virtual colonography starting as early as age 10 and up to annually depending on clinical indication, including **ANY** of the following:
 - Hereditary nonpolyposis colorectal cancer (HNPCC)¹⁶⁻¹⁷; **OR**
 - Bloom syndrome; **OR**
 - PTEN hamartoma tumor syndrome (PHTS) when colonoscopy is contraindicated; **OR**
- Diagnostic examination in symptomatic patients with **ALL** of the following¹:
 - Documented discussion with the patient that optical colonoscopy is considered the gold standard in this setting; **AND**
 - The patient has signs or symptoms suggesting colorectal cancer, including **ANY** of the following:
 - ◆ The positive test result indicates a relative elevation in risk (e.g., positive fecal immunochemical test, positive fecal occult blood test [FOBT]); **OR**
 - ◆ Iron-deficiency anemia; **OR**
 - ◆ Weight loss; **OR**

- Post-surgical follow-up of a patient for a colonic stoma or after a colectomy¹; **OR**
- Before colorectal cancer surgery for the identification of synchronous lesions¹; **OR**
- Repeat imaging of a specific area or structure using the same imaging modality (in the absence of an existing follow-up guideline) is considered appropriate when **ALL** of the following is **TRUE**:
 - There is documented clinical necessity; **AND**
 - Prior imaging results of the specific area or structure, obtained using the same imaging modality, must be documented and available for comparison; **AND**
 - **ANY** of the following is **TRUE**:
 - ◆ A change in clinical status, such as worsening symptoms or the emergence of new symptoms, that may influence the treatment approach; **OR**
 - ◆ The requirement for interval reassessment, which may alter the treatment plan; **OR**
 - ◆ One-time follow-up of a prior indeterminate finding to assess for interval change; **OR**
 - ◆ The need for re-imaging either before or after performing an invasive procedure.

Non-Indications

- **Computed tomography (CT) colonography** is **NOT** considered appropriate if **ANY** of the following is **TRUE**:
- ◆ The patient has undergone advanced imaging of the same body part and for the same indication within 3 months, without being on treatment; **OR**
 - ◆ If intravenous contrast is used, history of anaphylactic allergic reaction to iodinated contrast media; **OR**
 - ◆ When used for first-time screening in the absence of contraindications to colonoscopy, regardless of family history or other risk factors for the development of colonic disease¹⁸⁻²⁰; **OR**
 - ◆ History of colorectal surgery within 1 month; **OR**
 - ◆ History of polypectomy or mucosectomy within 1 week; **OR**
 - ◆ Attempted colonoscopy within 48 hours; **OR**
 - ◆ Symptomatic colon-containing hernia^{1,21}; **OR**
 - ◆ Known or suspected current colon perforation^{1,21}; **OR**

- ◆ High-grade or symptomatic small bowel obstruction^{1,21}; **OR**
- ◆ Routine follow-up of inflammatory bowel disease^{1,21}; **OR**
- ◆ Hereditary polyposis syndromes such as familial adenomatous polyposis (FAP) (applies to virtual colonoscopy as it is unlikely to provide clinical benefit)^{1,21}; **OR**
- ◆ Evaluation of anal canal disease such as peri-anal fissure.^{1,21}

*NOTE: CT Colonography should not be performed if the patient has symptomatic acute conditions such as colitis, diarrhea, or recent acute diverticulitis.^{1,21}

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.²²⁻²³

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.²²⁻²³

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.²²⁻²³

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.²²⁻²³

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
74261	Computed tomography (CT) colonography, diagnostic; without contrast material, with image post-processing
74262	Computed tomography (CT) colonography, diagnostic; with contrast material and non-contrast images, with image post-processing
74263	Computed tomographic (CT) colonography, screening, including image postprocessing
76380	Computed tomography, limited or localized follow-up study

Medical Evidence

Jain et al. (2022) outline the updated colorectal cancer (CRC) screening strategies recommended by the United States Preventive Services Task Force (USPSTF) in 2021. Average-risk individuals should start screening at age 45. The Task Force suggests several screening methods: high-sensitivity guaiac fecal occult blood test (HSgFOBT), fecal immunochemical test (FIT), multi-target stool DNA (mt-sDNA) test, computed tomographic (CT) colonography (virtual colonoscopy), flexible sigmoidoscopy, flexible sigmoidoscopy with FIT, or traditional colonoscopy. Numerous emerging and innovative screening approaches are being researched and are on the horizon for primary screening in average-risk individuals. These include blood-based screening or "liquid biopsy," colon capsule endoscopy, urinary metabolomics, and stool-based microbiome testing to detect colorectal polyps or CRC. Compared to traditional colonoscopy, the advantages of CT colonography include a lower risk of complications, less invasive, sedation not required, and the clinician being able to visualize the entire colon. In addition, CT colonography requires a less frequent testing interval than stool-based modalities and is relatively safe for individuals with medical comorbidities that preclude colonoscopy. Same-day endoscopic evaluation may also be performed if indicated.²⁴

Gupta et al. (2022) review CRC screening for identifying polyps and cancer within the colon. The sensitivity for detecting lesions greater than or equal to 1 cm varies between 67 and 94%, while specificity ranges from 86 to 98%. Notably, an estimated incidence of potentially significant extracolonic findings necessitating further investigation, ranging from 3.4–26.9%, with 1.3–11.4% possibly requiring follow-up due to incomplete characterization. Several studies have shown superior sensitivity in detecting colorectal cancer compared to colonoscopy, mainly when the endoscopist is unaware of CT colonography results. Repeat screening every 5 years is recommended by the USPSTF.²⁵

Shaukat et al. (2022) discuss CT colonography to facilitate the identification and pinpointing of polyps and cancers within the colon through a reconstructed 3D or 4D visualization. Two extensive trials have evaluated the diagnostic efficacy of CT colonography against optical colonoscopy

conducted on the same day. One study involving 1233 individuals at average risk showcased CT colonography's test characteristics, revealing 92% sensitivity and 96% specificity for adenomas measuring 10mm or larger as detected by optical colonoscopy. Additionally, it demonstrated 86% sensitivity and 80% specificity for adenomas measuring 6mm or larger. The National CT Colonography Trial (NCTC), sponsored by the American College of Radiology Imaging Network (ACRIN), comprised 2600 asymptomatic participants undergoing same-day CT colonography and optical colonoscopy. Results revealed a sensitivity of 84% for adenomas or colorectal cancer (CRC) measuring 10mm or larger, with a specificity of 85%. Furthermore, a sensitivity of 70% was observed for adenomas measuring 6mm or larger, with a specificity of 86%. A notable critique of CT colonography is the failure to report lesions smaller than 6mm, the clinical significance of which remains uncertain.²⁶

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Clinical Guideline Revision History/Information

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