TABLE 345-3 COLORECTAL CANCER SCREENING STRATEGIES

	Choices/Recommendations	Comments
Average-Risk Patients		
Asymptomatic individuals ≥50 years of age (≥45 years of age for African Americans)	Colonoscopy every 10 years[a]	Preferred cancer prevention strategy
	Annual fecal immunochemical test (FIT) or fecal occult blood test (FOBT), multiple take-home specimen cards	Cancer detection strategy; fails to detect most polyps; colonoscopy if results are positive
	Computed tomography (CT) colonography every 5 years	Colonoscopy if results are positive
	Flexible sigmoidoscopy every 5 years	Fails to detect proximal colon polyps and cancers
	Double-contrast barium enema every 5 years	Less sensitive than colonoscopy or CT colonography; misses some cancers and polyps
Personal History of Polyps or Colorectal Cancer		
1 or 2 small (<1 cm) adenomas with low-grade dysplasia	Repeat colonoscopy in 5–10 years	Assuming complete polyp resection; interval may vary based on prior history, family history
3 to 9 adenomas, or any high-risk adenoma[b]	Repeat colonoscopy in 3 years; subsequent colonoscopy based on findings	Assuming complete polyp resection
≥10 adenomas	Repeat colonoscopy in <3 years based on clinical judgment	Consider evaluation for FAP or HNPCC; see recommendations below
Piecemeal removal of a sessile polyp	Exam in 2–6 months to verify complete removal	
Small (<1 cm) hyperplastic polyps of sigmoid and rectum	Repeat colonoscopy in 10 years	Those with hyperplastic polyposis syndrome merit more frequent follow-up
Sessile serrated adenoma/polyp <10 mm, without dysplasia	Repeat colonoscopy in 5 years	
Sessile serrated adenoma/polyp ≥10 mm or with dysplasia, or ≥2 serrated polyps	Repeat colonoscopy in 3 years	Serrated polyposis syndrome merits more frequent follow-up
Incompletely removed serrated polyp ≥1 cm	Exam in 2–6 months to verify complete removal	
Colon cancer	Evaluate entire colon around the time of resection, then repeat colonoscopy in 1 year	Subsequent colonoscopy in 3 years if the 1-year exam is normal
Inflammatory Bowel Disease		
Long-standing (>8 years) ulcerative pancolitis or Crohn's colitis, or left-sided ulcerative colitis of >15 years in duration	Colonoscopy with biopsies every 1–3 years	
Family History of Polyps or Colorectal Cancer		
First-degree relatives with only small tubular adenomas	Same as average risk	
Single first-degree relative with CRC or advanced adenoma at age ≥60 years	Colonoscopy every 10 years starting at age 40	
Single first-degree relative with CRC or advanced adenoma at age <60 years, OR two first-degree relatives with CRC or advanced adenomas at any age	Colonoscopy every 5 years beginning at age 40 years or 10 years younger than age at diagnosis of the youngest affected relative, whichever is earlier	
FAP	Sigmoidoscopy or colonoscopy annually, beginning at age 10–12 years	Consider genetic counseling and testing
HNPCC	Colonoscopy every 2 years beginning at age 20–25 years (or 10 years younger than the youngest affected first-degree relative) until age 40, then annually thereafter	Consider histologic evaluation for microsatellite instability in tumor specimens of patients who meet Bethesda criteria; consider genetic counseling and testing

[a]Assumes good colonic preparation and complete exam to cecum. [b]High-risk adenoma: any adenoma ≥1 cm in size or containing high-grade dysplasia or villous features.

Abbreviations: CRC, colorectal cancer; FAP, familial adenomatous polyposis; HNPCC, hereditary nonpolyposis colorectal cancer.

Source: Adapted from DA Lieberman et al: Gastroenterology 143:844, 2012; B Levin et al: CA Cancer J Clin 58:130, 2008; American Cancer Society Guidelines (*http://www.cancer.org/cancer/colonandrectumcancer/moreinformation/colonandrectumcancerearlydetection/colorectal-cancer-early-detection-acs-recommendations*), accessed November 15, 2013.

are at increased risk for colorectal cancer. An individual without these factors is generally considered at average risk.

Screening strategies are summarized in Table 345-3. Although stool tests for occult blood have been shown to decrease mortality rate from colorectal cancer, they do not detect some cancers and many polyps, and direct visualization of the colon is a more effective screening strategy. Either sigmoidoscopy or colonoscopy may be used for cancer screening in asymptomatic average-risk individuals. The use of sigmoidoscopy was based on the historical finding that the majority of colorectal cancers occurred in the rectum and left colon and that patients with right-sided colon cancers had left-sided polyps. Over the past several decades, however, the distribution of colon cancers has changed in the United States, with proportionally fewer rectal and left-sided cancers than in the past. Large American studies of colonoscopy for screening of average-risk individuals show that cancers are roughly equally distributed between left and right colon and half of patients with right-sided lesions have no polyps in the left colon. Visualization of the entire colon thus appears to be the optimal strategy for colorectal cancer screening and prevention.

Virtual colonoscopy (VC) is a radiologic technique that images the colon with CT following rectal insufflation of the colonic lumen. Computer rendering of CT images generates an electronic display of