



Screening for *Colorectal Cancer*

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Colorectal cancer is the second biggest killer amongst cancers. It is second only to lung cancer. Increased attention has been paid recently to population screening for colorectal cancer.¹⁻⁵ Screening is an attractive option because it provides the opportunity to identify and remove adenomatous polyps (the precursors of colorectal cancer). This stepwise progression affords colorectal cancer screening an advantage over mammography, a widely accepted screening modality which, for the most part, strives to identify early cancers rather than pre-cancers. To the extent that controversy exists about colorectal cancer screening, it is less about whether it is an effective strategy, and more about the feasibility of screening, and about which is the best modality to employ.

Colonoscopy is the best method for assessment of the presence of adenomatous polyps or colorectal cancers in the colorectum. Moreover, colonoscopy provides an opportunity for the removal of polyps, or the biopsy of suspicious lesions. Studies have recently emphasized the superiority of colonoscopy over barium enema² and have demonstrated the importance of examining the entire colon, and not just the left colon (*i.e.*, sigmoidoscopy).^{3,4} There are, however, important limitations to employing colonoscopic screening. First, it is still considered unpalatable by a significant segment of the public. Interestingly, most people comment after the procedure that "it is not that bad." Second, population-wide appli-

Martin's concern

Martin, 55, presents for his yearly physical examination. He feels completely well. No abnormalities are detected on physical examination. However, his neighbour recently developed colon cancer, and Martin wants to know if there is anything he should be considering in order to avoid the same diagnosis.



cation of colonoscopy requires a huge commitment of resources, in terms of both funding endoscopy units and arranging for the health-care providers to perform the colonoscopies. Finally, it is not a completely benign procedure, and complications requiring hospitalization have been reported in up to 2% of patients who undergo colonoscopy. Indeed, death from colonoscopic perforation has also been reported in polypectomy surveillance studies.⁵

Fecal occult blood testing (FOBT) has been extensively studied. It is an imperfect test, but useful. Mass screening programs with FOBT yield positive results in 1% to 8% of patients. Among this group of patients with positive results on stool guaiac, 8% to 15% will have cancer, and 9% to 35% will have adenomatous



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polyps. Therefore, approximately 50% of patients will have false positive results. The actual false negative rate is not known, because patients with negative results usually do not undergo colonoscopy or barium enemas. In patients with known colorectal neoplasms, the false negative rate for cancer is approximately one-third, and it is two-thirds for polyps. Nonetheless, this test has been shown to reduce the incidence of colorectal cancer, and decrease the death rate in population-based studies.¹

Cancer Care Ontario is presently studying the feasibility of implementing population-based screening for Ontarians. After grappling with the pros and cons of the different approaches, it seems likely that FOBT will be embraced. Such a plan would be applicable for average risk persons starting at age 50. In the future, techniques, such as virtual colonoscopy (CT colonography), may replace existing methods as techniques for screening for colorectal cancer. In the meantime, it does seem that there is utility in undertaking colorectal cancer screening, as it provides an opportunity to decrease the morbidity from this common disease. Finally, it should be stressed that case finding for colorectal cancer must always be distinguished from screening. In high-risk individuals or those individuals who report symptomatology (sometimes even a very mild symptom), colonoscopy should be offered.

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Take-home message



- Colon cancer is the number two killer amongst all cancers, and it affects men and women almost equally.
- Level 1 evidence exists to support colorectal cancer screening with fecal occult blood testing (FOBT).
- Physicians should consider FOBT or some other form of colorectal cancer screening in all patients over 50.
- Any patient with symptoms, such as rectal bleeding or change in bowel habit, should be referred for colonoscopy.
- Colon cancer should be considered as a differential diagnosis in any patient over 40 who has iron deficiency anemia.



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Colorectal Cancer Screening

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Readings

1. The Canadian Journal of Gastroenterology:
www.pulsus.com/Gastro/17_02/newe_ed.htm
2. Mount Sinai Hospital:
www.mtsinai.on.ca/Publications/YHRSpring2001/Raising.htm
3. Canadian Association of Gastroenterologists:
<http://www.gi.ucalgary.ca>

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Myth **6** Alzheimer Disease is preventable.

Reality: Because there is no known cause for Alzheimer Disease, there is no conclusive evidence that Alzheimer Disease can be prevented. There is, however, a growing amount of evidence that lifestyle choices that keep mind and body fit may help reduce the risk. These choices include physical exercise, a healthy diet including fresh fruits, vegetables and fish, as well as keeping your brain active.