



- Complete a family history of **all** cancers in any female or male relative on either side of the family. Update family history and review on a regular basis.
- This risk triage applies to individuals who have never had colorectal cancer.
- Management strategies for each group are on the reverse side.
- Use medical and family history to classify individual to the appropriate category. Start at left side of chart and work down each risk category.
- **Seek clarification from hereditary CRC clinic/genetic centre if in doubt regarding risk triage and/or management.**

HEREDITARY COLORECTAL CANCER SYNDROMES

HNPCC—Hereditary Non-Polyposis Colorectal Cancer: Most common form of hereditary CRC (approximately 1-2% of all CRC diagnoses). Individuals with HNPCC are at high risk for developing CRC and endometrial cancer. There is also an increased risk for certain other cancers, particularly other gastrointestinal and gynecological cancers. **HNPCC-associated cancers:** colorectal, endometrial, small bowel, ureter, kidney (transitional cell), sebaceous adenoma/carcinoma, ovarian, pancreatic, gastric, primary brain, primary hepatobiliary cancer.

FAP—Familial Adenomatous Polyposis: Very rare condition (<1% of CRC) characterized by 100s to 1000s of colorectal adenomatous polyps beginning as early as puberty. A variant known as attenuated FAP may occur with <100 colorectal adenomatous polyps.

HIGH RISK FOR HEREDITARY/FAMILIAL CRC

- ❑ Any blood relative of an individual with a known HNPCC or FAP genetic mutation **or**
- ❑ 3 or more relatives on the same side of the family, at least 1 with CRC and 2 or more with any combination of the above underlined HNPCC-associated cancers
 - 1 of whom is a 1st degree relative of the other 2 **and**
 - 1 relative diagnosed <age 50 **and**
 - at least 2 successive generations (suggestive of HNPCC) **or**
- ❑ >10 colorectal adenomatous polyps
 - Personal history **or**
 - 1st or 2nd degree relative (suggestive of FAP/attenuated FAP)

MODERATE RISK FOR HEREDITARY/FAMILIAL CRC

- Meets none of the high risk criteria **and**
- ❑ 1st or 2nd degree relative with CRC ≤ age 35 **or**
 - ❑ 1st or 2nd degree relative with 2 or more of the above underlined HNPCC-associated cancers **or**
 - ❑ 2 or more 1st or 2nd degree relatives on the same side of the family with CRC diagnosed < age 50 **or**
 - ❑ 3 or more relatives with any HNPCC-associated cancers at any age, on same side of the family, at least 1 of whom has CRC

LOW RISK FOR HEREDITARY/FAMILIAL CRC BUT STILL AT INCREASED RISK OF CRC

- Meets none of high or moderate hereditary/familial risk criteria **and**
- ❑ 1st degree relative with CRC >age 35 **or**
 - ❑ 2nd degree relative with CRC age 35–50 **or**
 - ❑ ≥ 2 2nd degree relatives with CRC >age 50 **or**
 - ❑ 1 1st degree or ≥ 2 2nd degree relatives with colorectal polyps **or**
 - ❑ Personal history of 1–10 colorectal adenomatous polyps **or**
 - ❑ Personal history of inflammatory bowel disease

POPULATION RISK FOR CRC

Meets none of the other risk criteria but has 1 in 16 lifetime risk of developing sporadic CRC.



COLORECTAL CANCER (CRC) RISK MANAGEMENT RECOMMENDATIONS

Based on current information. Clinical judgement prevails.

Risk Level	Management
<p>HIGH RISK FOR HEREDITARY/FAMILIAL CRC</p>	<p>Offer referral to Hereditary Colorectal Cancer Clinic/Genetics Centre.</p> <p>Suggestive of HNPCC/ Confirmed HNPCC: Colonoscopy q 1–2 years beginning at age 20 or 10 years younger than the youngest CRC or adenomatous polyp diagnosis, whichever comes first (I). Educate patient regarding symptoms of endometrial cancer. No evidence-based screening recommendations for other HNPCC-associated cancers.</p> <p>Suggestive of FAP/ Attenuated FAP: Seek advice from a colorectal specialist.</p>
<p>MODERATE RISK FOR HEREDITARY/FAMILIAL CRC</p>	<p>Offer referral to Hereditary Colorectal Cancer Clinic/Genetics Centre.</p> <p>Colonoscopy q 3–5 years beginning 10 years younger than the youngest CRC or adenomatous polyp diagnosis in the family, no later than age 40 (I). Screening interval may be adjusted based on findings. Educate patient regarding symptoms of endometrial cancer.</p>
<p>LOW RISK FOR HEREDITARY/FAMILIAL CRC BUT AT INCREASED RISK OF CRC</p>	<p>Colonoscopy for 1st degree relatives of affected individuals q 5–10 years beginning 10 years younger than the youngest CRC diagnosis, no later than age 40 (I). Frequency of colonoscopies should be reassessed based on findings.</p> <p>Screening as for population risk below for 2nd degree relatives of affected individuals or those individuals who do not have colonoscopy beginning 10 years younger than the youngest CRC diagnosis, no later than age 40*.</p> <p>Seek advice from gastroenterologist or surgeon for individuals with polyps or inflammatory bowel disease.</p>
<p>POPULATION RISK FOR CRC</p>	<p>*Begin at age 50: Annual or biennial fecal occult blood testing (A) or flexible sigmoidoscopy q 5y (B) or fecal occult blood testing + flexible sigmoidoscopy q 5y (I) or double contrast barium enema q 5y or Colonoscopy q 10y (I) at periodic health exam (PHE).</p>

Grades for recommendation of clinical action from the Canadian Task Force on Preventative Health Care: **A:** Good evidence **B:** Fair evidence **I:** Insufficient evidence
McLeod RS et al. Can J Gastroenterol 2001 Oct 15(10):647-60 Review.

* Leddin D et al. Canadian Association of Gastroenterology and the Canadian Digestive Health Foundation: Guidelines on colon cancer screening. Can J Gastroenterol 2004 Feb 18(2): 93-9 Review.