

 **Prostate Cancer:** Family history clinical decision support tool for risk assessment and management

There is controversy about prostate cancer screening. For example, due to the potential harms of screening, including over-diagnosis and over-treatment, Cancer Care Ontario and the Canadian Task Force on Preventive Health Care (2014) do not support an organized, population-based screening program for individuals at average risk of prostate cancer. Recent recommendations from the Canadian Urological Association (CUA) recommend that men at **average risk** for prostate cancer, and with a life expectancy greater than 10 years, consider screening by prostate-specific antigen starting at age 50.

Those at **increased risk** may benefit from a personalized discussion of prostate cancer screening.

Risk assessment:

The following categories indicate an individual who is at increased risk to develop prostate cancer:

- Family history of prostate cancer in a first degree relative (e.g. father, brother), particularly at a younger age (less than 60 years)

- Black ancestry/ethnicity



Management

CUA recommends offering PSA screening to men with a life expectancy greater than 10 years.

The decision of whether to pursue PSA screening should be based on shared decision-making after the potential benefits and harms associated with screening have been discussed

For men electing to undergo PSA screening, CUA suggests starting PSA testing at age 50 in most men and at age 45 in men at an increased risk of prostate cancer.

CUA-Canadian Urological Association; PMID: [35358414](#)

Genetic risk assessment:

The following categories of *personal history* indicate an individual who is at **high risk** to carry a (likely) pathogenic gene variant in a prostate cancer gene.

- Metastatic prostate cancer

- High-risk[†], locally advanced, prostate cancer

- Prostate cancer and one or more (≥1) close relatives* with prostate cancer, one diagnosis should be high-risk[†] or metastatic

- Prostate cancer and two or more (≥2) close relatives* with prostate, pancreatic, ovarian and/or breast cancer at any age or stage

[†] Confirmed with evidence of *one or more of the following features*: T3 (or higher) staging, Grade Group 4 or 5 (Gleason Score 8 to 10), lymph node involvement, PSA ≥20

*Close relatives typically refers to first- and second-degree blood relatives *on the same side of the family* (e.g. parent, sibling, offspring, grandparent, aunt/uncle)

For those who meet one or more of the above criteria:



Management

Consider referral to local hereditary cancer/ genetics centre for assessment and possible genetic testing.

Resources

- Bell et al. CMAJ. 2014. [PMID: 25349003](#)
- Cancer Care Ontario. 2017. [Position Statement](#)
- Mason et al. Can Urol Assoc J. 2022. [PMID: 35358414](#)
- [Find your local genetics centre here](#)