



## Resource Guide for Physicians – Tools for Primary Prevention of Cardiovascular Disease

### Risk Assessment Resources

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There are a number of tools to assist in determining a patient's risk to cardiovascular disease (CVD). Each tool varies in the risk factors, time frame and CVD outcomes. There are known limitations to each of the risk tools, and the risk categories are based on consensus rather than by scientific evidence.

Older risk tools used only hard endpoints (e.g., coronary heart disease (CHD) deaths) to calculate one's risk. Newer risk tools have expanded their endpoints to include more CVD outcomes.

NOTE: The FRS, or any CVD risk assessment tool, is a risk estimation only of a patient's CVD risk. Since these scores are plus or minus several percentage points, it is important to consider modifying the risk estimation based on other known risk factors (e.g., family history, ethnicity) and a practitioner's clinical judgement. For example, the Canadian Cardiovascular Society (CCS) suggests that among individuals 30 - 59 years of age without diabetes, the presence of a positive history of premature CVD in first degree relatives increases a patient's FRS by approximately 2-fold.

#### Risk Assessment Tools

- **Canadian Cardiovascular Society:** estimates the 10-year risk of developing CVD, with paper-base and an online calculator, using FRS. <https://ccs.ca/calculators-and-forms/>
- **Framingham Heart Study:** FRS risk calculators (for patients age  $\leq 74$ ) for various CVD outcomes (e.g., CVD, CHD) and time frames (e.g., 10-year risk, 30-year risk). <https://framinghamheartstudy.org/fhs-risk-functions/cardiovascular-disease-10-year-risk/> ; <https://framinghamheartstudy.org/fhs-risk-functions/cardiovascular-disease-30-year-risk/>
- **Absolute CVD Risk/Benefit Calculator:** from James McCormack (for patients age  $\leq 80$ ) <https://cvdcalculator.com/>
- **The University of Edinburgh Cardiovascular Risk Calculator:** risk calculator that estimates 10-year CVD risk using the FRS, ASSIGN or the Joint British Societies / British National Formulary. Includes risk calculators that also estimate the 10-year risk for CHD, heart attack or stroke. <https://www.bloodpressureclinic.ed.ac.uk/calculating-cardiovascular-risk>
- **The United Kingdom Prospective Diabetes Study (UKPDS):** risk calculator that estimates the 10-year CHD and stroke risk for adults with type 2 diabetes. [www.dtu.ox.ac.uk/riskengine/](http://www.dtu.ox.ac.uk/riskengine/)
- **QRISK3:** risk calculator (for patients age  $\leq 84$ ) that estimates the 10-year risk of a heart attack or stroke. <https://qrisk.org/three/>

### Healthy Behaviour Intervention Resources

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#### Smoking

- QuitNow at [www.quitnow.ca/](http://www.quitnow.ca/)
- HealthLinkBC Quitting Smoking – Patients can call 8-1-1 or visit [www.healthlinkbc.ca/health-topics/quitting-smoking](http://www.healthlinkbc.ca/health-topics/quitting-smoking).
- Smokers' Helpline at 1-866-366-3667 or visit [SmokersHelpline.ca](http://SmokersHelpline.ca)
- For more information on effective pharmacological aids for smoking cessation, refer to BC Smoking Cessation program at [www.gov.bc.ca/bcsmokingcessation](http://www.gov.bc.ca/bcsmokingcessation).

## Physical Activity

- For patients who are sedentary, consider a graduated exercise program using [Brief Action Planning \(BAP\)](#).
- Engage the patients in completing a [Physical Activity Readiness Questionnaire for Everyone \(PAR-Q+\)](#) and [electronic Physical Activity Readiness Medical Examination \(ePARmed-X+\)](#) to help them determine their readiness. Refer them to an accessible exercise program (such as healthy heart programs).
- For assistance with personalized physical activity advice, refer patient to a physical activity expert at [HealthLinkBC](#) or by calling 8-1-1.
- [Canadian Physical Activity and Sedentary Behaviour Guidelines](#) provide patients with guidelines and resources to help become more active.

## Healthy Diet

- **Registered Dietitians** at [HealthLinkBC](#) provide information, advice, and counselling services by telephone and email. Call 8-1-1 or visit <https://www.healthlinkbc.ca/healthy-eating> to learn more.
- **Public Health Agency of Canada** provides resources to help patients make wise choices about healthy living, including increasing physical activity and eating well. <https://www.canada.ca/en/services/health/food-nutrition.html>
- **Heart & Stroke Foundation of BC & Yukon** provides resources on heart diseases and stroke.
- **St Paul's Heart Centre** provides information on the prevention of cardiovascular disease. As well, it has a [Healthy Heart Program Prevention Clinic](#) for those with a referral.
- **Personal Health Risk Assessment Incentive (14066)**: This General Practice Services Committee (GPSC) fee is payable to the general or family practitioner who undertakes a Personal Health Risk Assessment with a patient belonging to one of the at-risk populations (smoker, unhealthy eating, physically inactive, obese), either as part of proactive care or in response to a request for preventive care from the patient. <http://www.gpsc.bc.ca/what-we-do/incentives/fees>

## Statins – Resources for a Patient Discussion

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- **Absolute CVD Risk/Benefit Calculator**: from James McCormack <http://chd.bestsciencemedicine.com/calc2.html>
- **Cardiovascular Prevention Decision Aids (Statin & Aspirin)**: from the Mayo Clinic [statindecisionaid.mayoclinic.org](http://statindecisionaid.mayoclinic.org)
- **NNT – Statin for heart disease prevention without prior heart disease**: from the NNT <https://www.thennt.com/>

## Other BC Guidelines

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- **BC Guidelines** at [www.BCGuidelines.ca](http://www.BCGuidelines.ca)
  - [Hypertension – Diagnosis and Management](#)
  - [Diabetes Care](#)
  - [Chronic Kidney Disease – Identification, Evaluation and Management of Adult Patients](#)
  - [Stroke and Transient Ischemic Attack – Management and Prevention](#)
  - [Overweight and Obese Adults: Diagnosis and Management](#)