

### SUMMARY OF GUIDELINE

Guideline Effective Date: March 15, 2008

## Cardiovascular Disease – Primary Prevention

For full Guideline please go to website: <http://www.bcguidelines.ca>

### Lifestyle Management

Important risk factors can be modified (see below). Provide information, support, tools & resources, e.g., Heart & Stroke Foundation of BC & Yukon. See [www.actnowbc.ca](http://www.actnowbc.ca) for diet, physical activity & smoking cessation advice.

Risk factor	Goals	Management strategies & resources
Smoking	<ul style="list-style-type: none"> <li>Complete smoking cessation &amp; avoidance of second hand smoke.</li> </ul>	<ul style="list-style-type: none"> <li>QuitNow Services 1 877 455-2233; <a href="http://www.quitnow.ca">www.quitnow.ca</a></li> <li>Consider OTC or prescription medications.</li> </ul>
Physical activity	<ul style="list-style-type: none"> <li>Moderate intensity dynamic activity, e.g., walking 3 km in 30 minutes/day or walking 1.5 km in 15 minutes BID, jogging, cycling or swimming.</li> </ul>	<ul style="list-style-type: none"> <li>Writing a prescription for physical activity, for <math>\geq 30</math>-60 minutes/day, 4-7 days/week, is effective to promote physical activity.</li> </ul>
Weight	<ul style="list-style-type: none"> <li>BMI of 18.5-24.9 kg/m<sup>2</sup>.</li> <li>Waist circumference (Asian/Caucasian) &lt; 90 cm/102 cm (35"/40") for men and &lt; 80 cm/88 cm (32"/35") for women.</li> </ul>	<ul style="list-style-type: none"> <li>Weight loss strategies should be long-term.</li> <li>Employ a multidisciplinary approach including dietary education, increased physical activity &amp; behavioural intervention.</li> </ul>
Diet	<ul style="list-style-type: none"> <li>Emphasis on fruits &amp; vegetables (<math>\geq 5</math> servings/day), low-fat dairy products, fibre, whole grains &amp; protein sources low in trans-fat, saturated fat &amp; cholesterol.</li> <li>Sodium <math>\leq 1,500</math> mg/day (~ 1 tsp table salt).</li> <li>Fish high in omega-3 fatty acids twice/week.</li> </ul>	<ul style="list-style-type: none"> <li>Advise about hidden salt in canned soups etc.</li> <li>Patients with CVD or risk factors may benefit from diet advice &amp; referral to a dietitian.</li> <li>1 800 667-3438; <a href="http://www.dialadietitian.org">www.dialadietitian.org</a></li> <li>Patient guides at <a href="http://www.BCGuidelines.ca">www.BCGuidelines.ca</a>.</li> </ul>

### Risk Control Management Strategies

**Blood Pressure** ..... Promote a healthy lifestyle through smoking cessation, weight reduction, increased physical activity, low-salt and low-fat food intake (DASH diet) & the use of antihypertensive medications where appropriate, with consideration for the presence of other CVD risk factors.

**Diabetes** ..... Promote a healthy lifestyle through smoking cessation, a healthful diet & increased physical activity, & use medications where appropriate to control blood glucose.

**Lipids** .....
 

- Who to test:
  - Full profile (TG, TC, HDL, LDL) for men  $\geq 40$  yrs; women postmenopausal or  $\geq 50$  yrs; < 40 yrs with hypertension, CKD, DM, or abdominal obesity; family history of premature CHD (onset < 55 yrs for men, < 65 yrs for women); hypercholesterolemia; signs of hyperlipidemia, e.g., tendon xanthoma.
  - Reassess only if major CVD risk factors change.
  - Consider apolipoprotein B (apoB) for follow-up testing in high-risk patients who are undergoing treatment for hypercholesterolemia (but not for other dyslipidemias).
- Management: Lifestyle as first-line for patients in all risk categories. If insufficient, consider therapy with lipid-lowering medications, especially for patients at high risk. Aim for a 30-40% reduction in TC or LDL 10-year CHD risk

**10-yr CHD risk**.....
 

- Not diabetic: Framingham risk chart (considers gender, age, TC, HDL, systolic BP & smoking).
- Diabetic: UKPDS risk chart (considers gender, age, Hb A1C, TC, HDL, systolic BP & smoking).

**Albumin/creatinine ratio (ACR)**.....
 

- Measure ACR in patients with diabetes or hypertension.
- Elevated ACR is associated with risk of CHD/stroke: men > 2.0 mg/mmol; women > 2.8 mg/mmol.
- ACEI or ARBs can be used to manage proteinuria, including microalbuminuria.

**Kidney function**.....
 

- Impaired kidney function (eGFR < 60 mL/min) is associated with risk of CHD & stroke.
- ACEI and ARBs are effective in improving outcomes related to CVD & CKD.
- Benefits of statin therapy have not been fully evaluated in this patient group.

### Additional Considerations

**Women**..... Statins are not known to prevent CHD or improve survival for women without known heart disease.

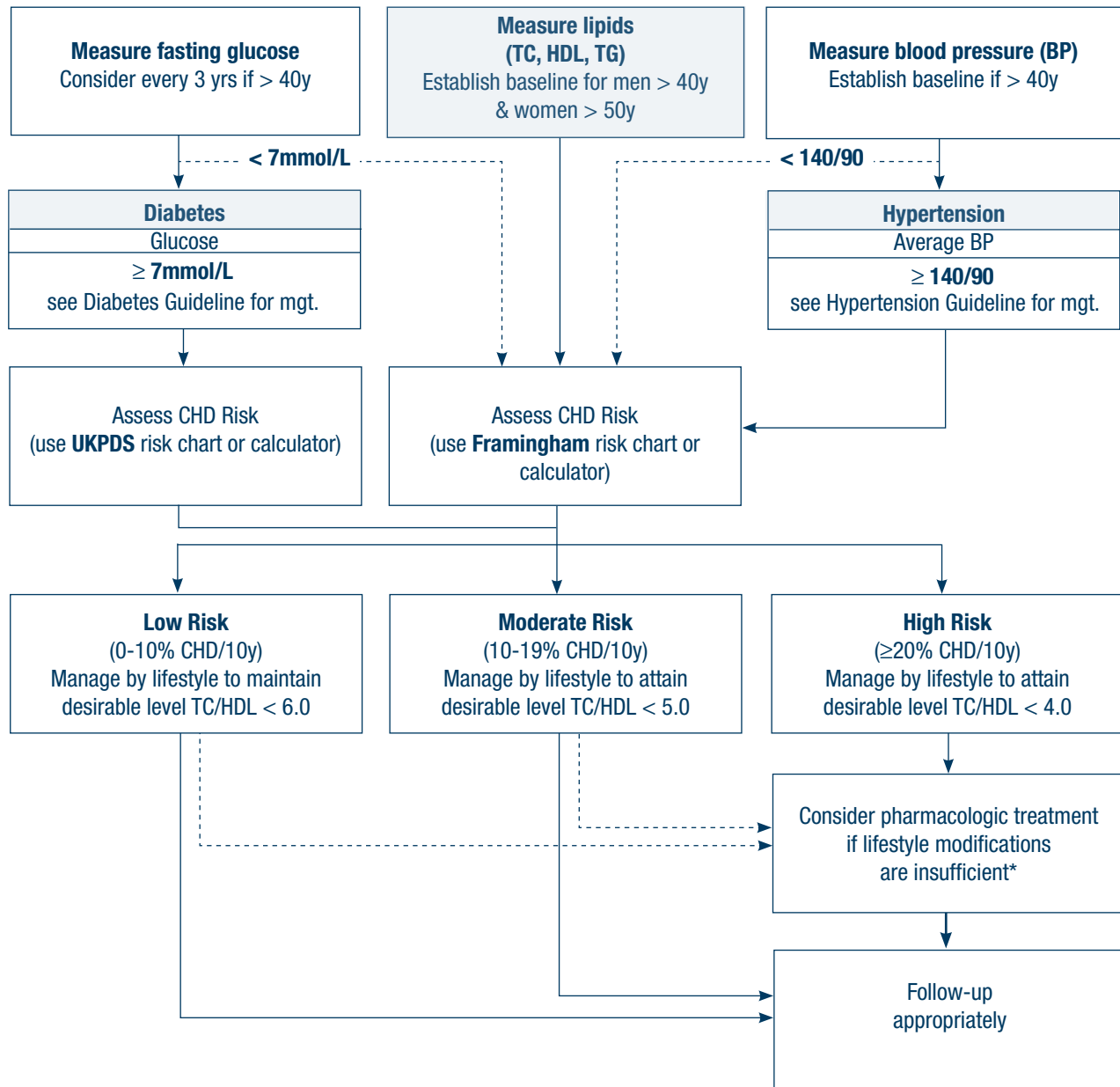
**Adults  $\geq 70$  yrs**..... Insufficient evidence for the safety of statins and improved overall outcomes.

**ASA 81 mg/day**..... Recommended for patients aged < 70 yrs not aspirin intolerant & 10-year CHD risk  $\geq 20\%$ .

**Metabolic syndrome** ..... Includes  $\geq 3$  of: abdominal obesity (see waist circumference above), TG  $\geq 1.7$  mmol/L, low HDL (men < 1.0 mmol/L, women < 1.3 mmol/L), BP > 130/85, FBG 5.7-6.9 mmol/L. First line management is lifestyle.

**Socioeconomic factors**..... May play a role in exacerbating risk and should be considered.

## Coronary Heart/Cardiovascular Disease Risk Assessment



\*Statins are not known to prevent CHD or improve survival for women without known heart disease.

### Abbreviations

ACEI	angiotensin converting enzyme inhibitor	DASH	dietary approaches to stopping hypertension
ACR	albumin/creatinine ratio	eGFR	estimated glomerular filtration rate
ApoB	apolipoprotein B	FBG	fasting blood glucose
ARB	angiotensin receptor blocker	Hb A1C	hemoglobin A1C
ASA	acetylsalicylic acid	HDL	high-density lipoprotein
BID	twice/day	mgt	management
BMI	body mass index	LDL	low density lipoprotein
BP	blood pressure	OTC	over-the-counter
CHD	coronary heart disease	TC	total cholesterol
CKD	chronic kidney disease	TG	triglycerides
CVD	cardiovascular disease	UKPDS	United Kingdom Prospective Diabetes Study