

ASSESSING CARDIOVASCULAR RISK AND TREATMENT BENEFIT

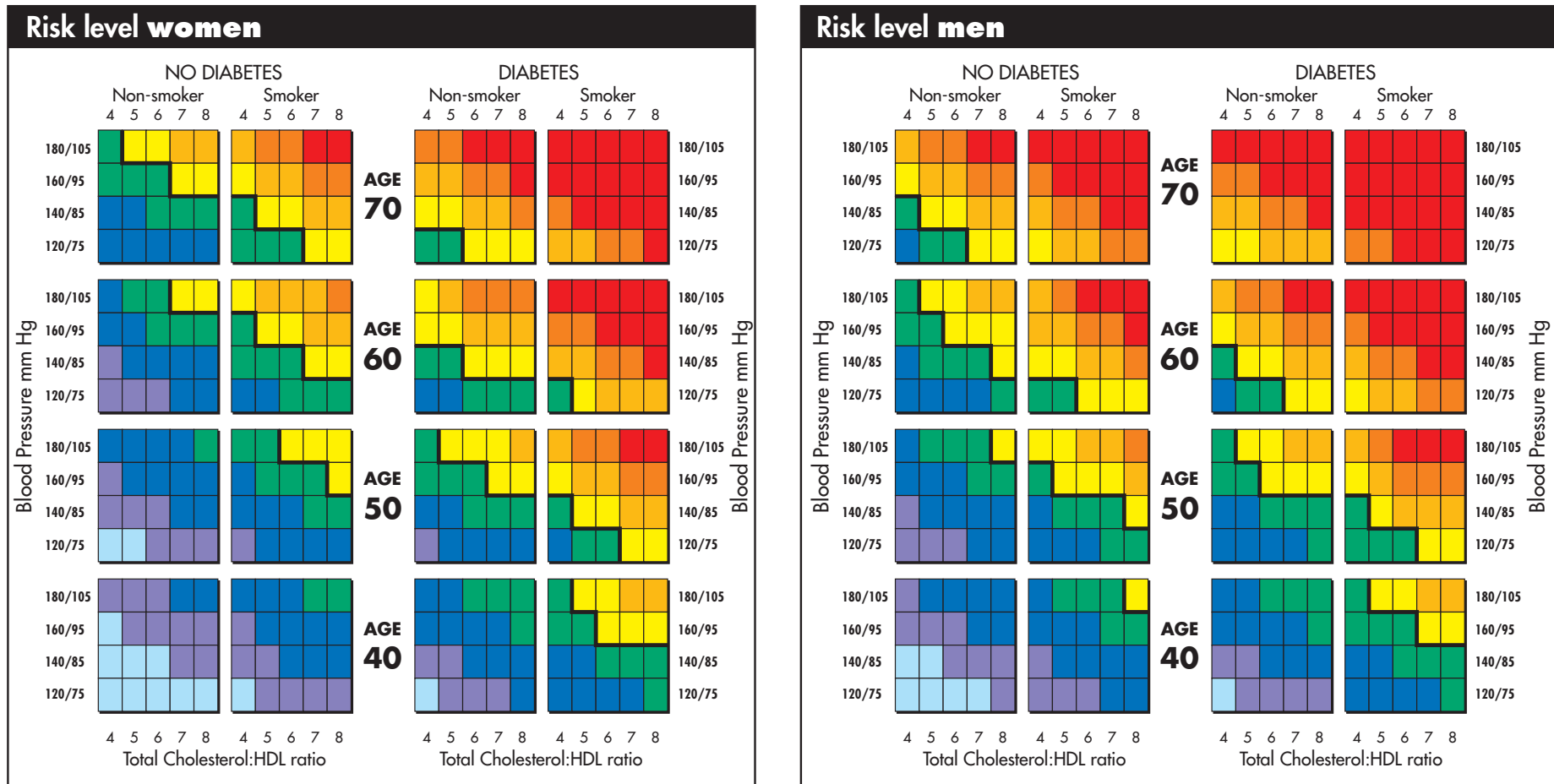
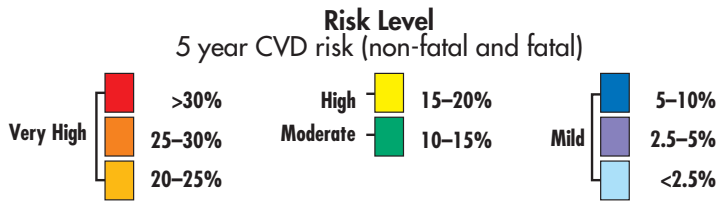


Figure 1: Assessing 5-year cardiovascular risk and treatment benefit



How to use the Tables

- Identify the table relating to the person's sex, diabetic status, smoking history and age.
- Within the table choose the cell nearest to the person's age, blood pressure and TC:HDL ratio. When the systolic and diastolic values fall in different risk levels, the higher category applies.
- For example, the lower left cell contains all non-smokers without diabetes who are less than 45 years and have a TC:HDL ratio less than 4.5 and a blood pressure less than 130/80 mm Hg. People who fall exactly on a threshold between cells are placed in the cell indicating higher risk.

Notes for Figure 1

People at very high risk (>20% over 5 years) determined clinically

- People who have had a previous cardiovascular event (angina, myocardial infarction, angioplasty, coronary artery bypass grafts, transient ischaemic attack, ischaemic stroke or peripheral vascular disease).
- People with genetic lipid disorders (familial hypercholesterolaemia, familial defective ApoB and familial combined dyslipidaemia).
- People with diabetes and overt nephropathy (albumin:creatinine ratio >30 mg/mmol) or diabetes and other renal disease.

Where CV risk is determined using the Framingham risk equation and tables

The following groups should be moved up one risk category (5%), as their cardiovascular risk may be underestimated in the Framingham risk equation:

- people with a family history of premature coronary heart disease or ischaemic stroke in a first-degree male relative before the age of 55 years or a first-degree female relative before the age of 65 years
- Māori
- Pacific peoples or people from the Indian subcontinent
- people with both diabetes and microalbuminuria
- people who have had type 2 diabetes for more than 10 years or who have an HbA1c consistently greater than 8%
- people with the metabolic syndrome.

These adjustments should be made once only for people who have more than one criteria (the maximum adjustment is 5%).

Where risk factor levels are extreme

- If blood pressure is consistently greater than 170/100 mm Hg or total cholesterol greater than 8 mmol/L or TC:HDL ratio greater than 8 the person is classified at least at high risk (>15%) and should receive specific lifestyle advice and medication to lower their risk, irrespective of their calculated cardiovascular risk.
- For age greater than 75 years the 5-year cardiovascular risk is greater than 15% in nearly all individuals.

Risk level: 5-year CV risk (fatal and non-fatal)	Benefits: NNT for 5 years to prevent one event (CVD events prevented per 100 people treated for 5 years)		
	1 intervention (25% risk reduction)	2 interventions (45% risk reduction)	3 interventions (55% risk reduction)
30%	13 (7.5 per 100)	7 (14 per 100)	6 (16 per 100)
20%	20 (5 per 100)	11 (9 per 100)	9 (11 per 100)
15%	27 (4 per 100)	15 (7 per 100)	12 (8 per 100)
10%	40 (2.5 per 100)	22 (4.5 per 100)	18 (5.5 per 100)
5%	80 (1.25 per 100)	44 (2.25 per 100)	36 (3 per 100)

Based on the conservative estimate that each intervention: aspirin, blood pressure treatment (lowering systolic blood pressure by 10 mm Hg) or lipid modification (lowering LDL-C by 20%) reduces CV risk by about 25% over 5 years.