

Already known to be at increased risk?
 Adults with any of the following conditions do not require absolute CVD risk assessment using the Framingham Risk Equation because they are already known to be at clinically determined high risk of CVD: (EBR: Grade D)

- Diabetes and age >60 years
- Diabetes with microalbuminuria (> 20 mcg/min or urinary albumin:creatinine ratio >2.5 mg/mmol for males, >3.5 mg/ mmol for females)
- Moderate or severe chronic kidney disease (persistent proteinuria or estimated glomerular filtration raterate [eGFR] <45 mL/min//1.73 m2)
- A previous diagnosis of familial hypercholesterolaemia
- Systolic blood pressure ≥180 mmHg or diastolic blood pressure ≥110 mmHg
- Serum total cholesterol >7.5 mmol/L

Key

-  Link to Decision Points
-  Link to Patient Summaries

YES

NO

Conduct formal absolute risk assessment

Calculate risk level using Framingham Risk Equation (EBR: Grade B):

- Australian cardiovascular risk charts 
- Web calculator www.cvdcheck.org.au
- Enter age 74 for adults aged 74+ (CBR)

High: greater than 15% risk of CVD within the next 5 years (includes clinically determined high risk) (PP) (Patient Case Study) 

Moderate: 10-15% risk of CVD within the next 5 years (PP) (Patient Case Study) 

Low: less than 10% risk of CVD within the next 5 years (PP) (Patient Case Study) 

Provide lifestyle advice and support (CBR) 

Provide lifestyle advice (CBR) 

• Provide frequent and sustained lifestyle advice, support and follow-up (CBR) 

• Commence BP + lipid lowering therapy unless contraindicated or clinically inappropriate (EBR: Grade B) 

Is one of the following present?

- BP persistently ≥160/100 mmHg
- Family history of premature CVD
- South Asian, Middle Eastern, Maori or Pacific Islander peoples

YES

NO

• Identify all other risk factors

• Continue with lifestyle intervention (CBR) 

• Treat for BP and/or lipid lowering (CBR)

Monitor and review risk at 3-6 months (CBR)

Has risk improved?

YES

NO

Continue with lifestyle intervention (CBR) 

Consider treating for BP and/or lipid-lowering (CBR)

Monitor response (PP)

Monitor response (PP)

Review absolute risk in 6-12 months (PP)

Review absolute risk in 6-12 months (PP)

Is BP persistently ≥160/100 mmHg?

YES

NO

• Treat BP (CBR) 

• Continue with lifestyle advice (CBR)

Monitor response (PP) [Link](#) 

Review absolute risk in 2 years (PP) 

Monitor individual risk factor response to treatment (PP) 

Review absolute risk according to clinical context (PP) 

Decision aids for managing lifestyle risk factors:

- [Smoking Cessation](#)
- [Weight Control Diet Plans](#)
- [Weight Control Medication](#)
- [Weight Control Surgery](#)

Decision Aids for Managing CVD Risk Factors:

- [Absolute Risk](#)
- [Cholesterol](#)
- [High Blood Pressure](#)
- [Diabetes](#)
- [Kidney Disease](#)

Risk Assessment Tools:

- [Australian Risk Assessment Tool](#)

Low Risk Patient Case Study:

LOW RISK: Patients may appear to be higher risk if they have one isolated risk factor but all other risk factors are low (e.g. an overweight younger woman with raised cholesterol but low blood pressure and no history of smoking/diabetes). These patients may already be taking inappropriate medication that they are very unlikely to benefit from - it may reduce their cholesterol, but if they had very low risk of a heart attack or stroke in the first place then there is no benefit to this individual risk factor reduction. Shared decision making tools to help GPs and patients discuss options for safe deprescribing schedules may be appropriate here. This may include comparing absolute risk on versus off medication using icon arrays to show the number of heart attacks prevented.

Moderate Risk Patient Case Study:

MODERATE RISK: GPs and patients may have a preference for either medication or lifestyle approaches to reducing risk at the moderate level, and both can be appropriate depending on additional risk factors, patient values, and previous experiences with making lifestyle changes. Shared decision making resources may be particularly useful here as the best management approach will be highly dependent on patient values, such as their attitude towards preventive medication, motivation to change lifestyle, and family/community support. This may include values clarification exercises to help patients identify what is most important to them.

High Risk Patient Case Study:

HIGH RISK: Patients may appear to be lower risk if they have several elevated risk factors that combine to increase risk significantly (e.g. a fit older man with mildly raised cholesterol and blood pressure and well-controlled diabetes). GPs may be less likely to assess CVD risk for these patients, which can lead them to miss out on preventive medication that could significantly lower their chance of having a heart attack or stroke in the next few years. This may include comparing absolute risk on versus off medication, and projecting future risk if no action is taken.

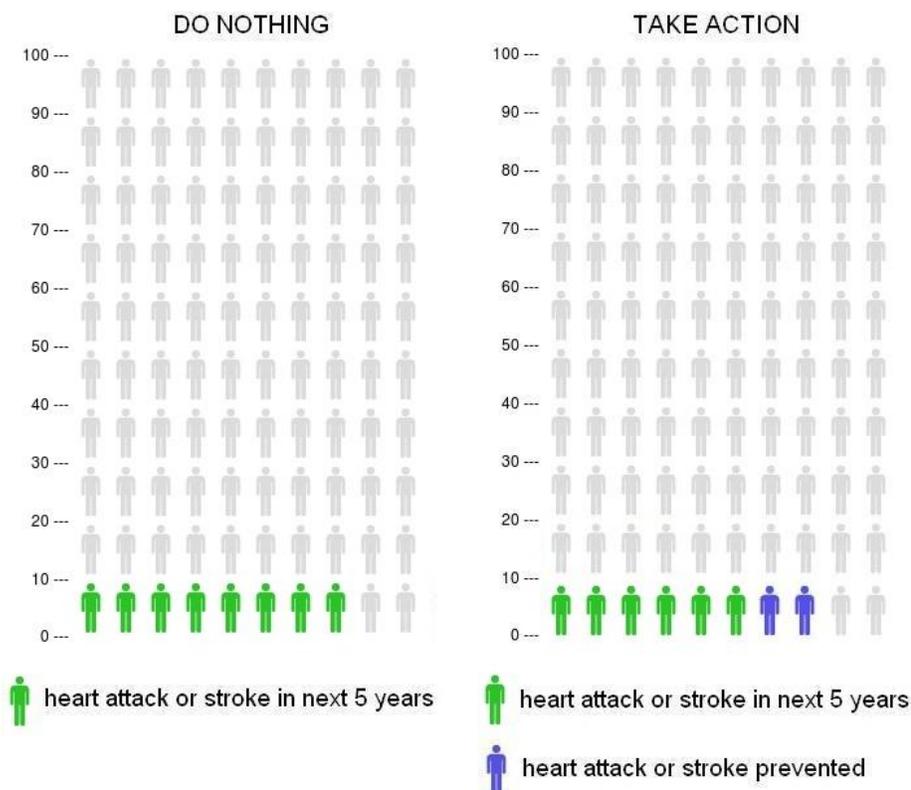
Patient Summary of Guidelines - Low Risk

Low risk

If you received a low risk result (0-9% chance of a heart attack or stroke in the next 5 years), the Australian guidelines recommend that you **maintain a healthy lifestyle**.

What happens if I do nothing? Your risk will increase as you get older. If your result was higher than the target risk for your age and gender, you may reach a high level of risk in future. If that happens, medication to lower your blood pressure or cholesterol may be recommended, but you are unlikely to benefit from it at this stage.

What happens if I take action? Research has shown that you can reduce your risk by 25% with the right changes to your diet or exercise. For example, imagine 100 people at 8% risk sitting in a cinema, watching a movie. If nothing changes, 8 of those people will have a heart attack or stroke in the next 5 years. But if all of those people start doing enough exercise, then 2 of those heart attacks or strokes could be prevented in the next 5 years.



Patient Summary of Guidelines - Moderate Risk

Moderate risk

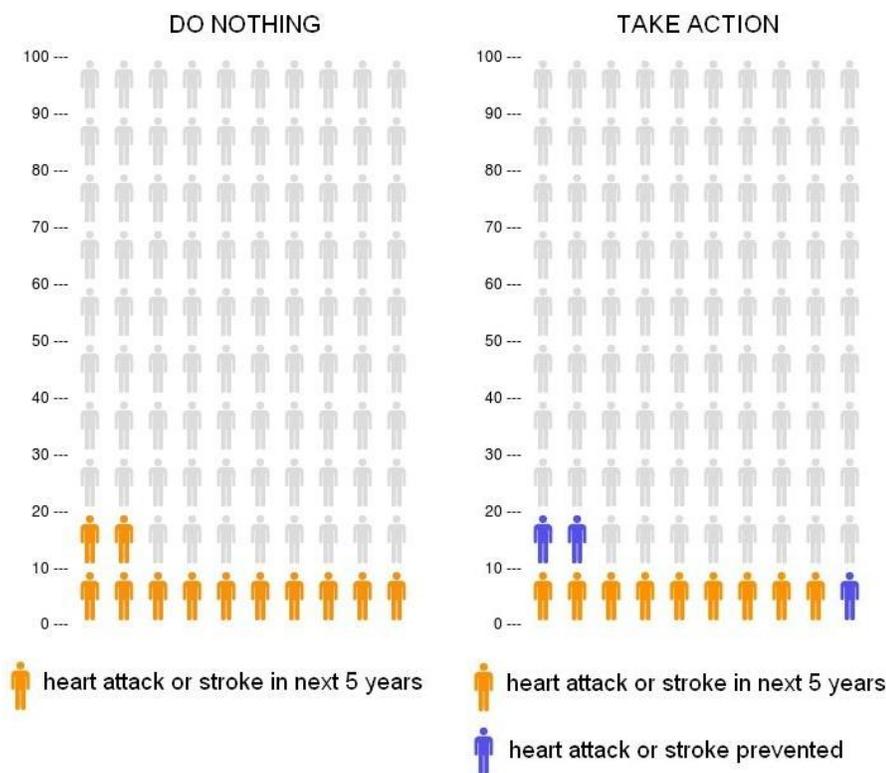
If you received a moderate risk result (10-15% chance of a heart attack or stroke in the next 5 years), the Australian guidelines recommend that you **improve your lifestyle** by not smoking, eating a healthier diet and/or getting more exercise.

What happens if I do nothing?

Your risk will increase as you get older. If you don't improve your lifestyle, you may reach a high level of risk in future. Medication to lower your blood pressure or cholesterol may be recommended if you are unable to reduce your risk through lifestyle changes, or your doctor thinks you have additional risk factors.

What happens if I take action?

Research has shown that you can reduce your risk by 25% with the right changes to your diet or exercise. For example, imagine 100 people at 12% risk sitting in a cinema, watching a movie. If nothing changes, 12 of those people will have a heart attack or stroke in the next 5 years. But if all of those people start doing enough exercise, then 3 of those heart attacks or strokes could be prevented in the next 5 years.



Patient Summary of Guidelines - High Risk

High risk

If you received a high risk result (more than a 15% chance of a heart attack or stroke in the next 5 years), the Australian guidelines recommend that you **improve your lifestyle** by not smoking, eating a healthier diet and/or getting more exercise, and **take medication** to lower your blood pressure and cholesterol.

What happens if I do nothing? Your risk will increase as you get older. If you don't improve your lifestyle or take medication, your risk will become even higher in future. Before you make a decision about what to do, you should talk to your doctor to confirm your absolute risk of having a cardiovascular event, consider the benefits and side effects of medication, and discuss your preferences.

What happens if I take action? Research has shown that you can reduce your risk by 25% with the right medication or changes to your lifestyle. For example, imagine 100 people at 16% risk sitting in a cinema, watching a movie. If nothing changes, 16 of those people will have a heart attack or stroke in the next 5 years. But if all of those people start taking a low dose cholesterol-lowering medication, then 4 of those heart attacks or strokes could be prevented in the next 5 years.

