Cells with this marker (●) indicate that in patients with very high levels of total cholesterol (> about 8.5–9 mmol/L) or blood pressure (> about 170/100 mmHg), the risk equations may underestimate the true risk.

* Assumes that cholesterol reduction of about 20% in patients with total cholesterol > 5.0–5.5 mmol/L or blood pressure reduction of about 12/6 mmHg in patients with BP > 140–150/90 mmHg produces an approximate 30% reduction in cardiovascular disease risk, whatever the pretreatment absolute risk.

New Zealand Cardiovascular Risk Calculator
– reproduced with permission from the New Zealand Guidelines Group

<table>
<thead>
<tr>
<th>Risk level</th>
<th>5 year cardiovascular risk (non-fatal and fatal)</th>
<th>Benefit</th>
<th>Cardiovascular events prevented per 100 treated for 5 years*</th>
<th>Benefit</th>
<th>Number needed to treat for 5 years to prevent 1 event*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>&gt;20%</td>
<td>&gt;10</td>
<td>9</td>
<td>&lt;10</td>
<td>12</td>
</tr>
<tr>
<td>High</td>
<td>20-25%</td>
<td>15-20%</td>
<td>7.5</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Moderate</td>
<td>10-15%</td>
<td>6</td>
<td>2.5</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>Mild</td>
<td>5-10%</td>
<td>2.5</td>
<td>1.25</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>&lt;2.5%</td>
<td>&lt;0.8</td>
<td>&lt;2.5%</td>
<td>&gt;120</td>
<td>&gt;120</td>
</tr>
</tbody>
</table>

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New Zealand Cardiovascular Risk Calculator
Assessment of absolute risk of a cardiovascular event

How to use the risk calculator

Find the colour block which best describes your patient’s:
- gender
- age (mean for that category, e.g. age 60 represents 55–64 years)
- smoking status (i.e. regular daily cigarette smoking or having stopped in the previous 12 months)
- diabetes status (i.e. on insulin, oral antidiabetic drugs or with a laboratory measurement of fasting plasma glucose > 8.0 mmol/L)
- blood pressure (mean of two readings on two occasions)
- total cholesterol/high-density lipoprotein cholesterol (HDL-C) ratio.

Cell colour estimates a patient’s absolute five-year risk of a cardiovascular event:
- newly diagnosed angina
- myocardial infarction
- coronary heart disease death
- stroke
- transient ischaemic attack.

Notes

1. For age > 75 years, the absolute risk of cardiovascular disease (CVD) is > 15% in nearly all individuals.

2. The estimated risk of CVD is not precise and is presented as a range with interpolation required between categories.

3. Very high risk patients
All patients with symptomatic cardiovascular disease* or electrocardiogram diagnosed left ventricular hypertrophy are assumed to have a cardiovascular disease risk of greater than 20% in five years.

* Symptomatic cardiovascular disease includes angina, myocardial infarction, congestive heart failure, stroke, transient ischaemic attack and peripheral vascular disease.

Where risk is underestimated

4. Patients with a strong family history of CVD (i.e. first-degree relatives: males with CVD before 55 years, females with CVD before 65 years) are likely to be at greater risk than the tables indicate:
- consider increasing one colour category.

5. Obese patients with a BMI of 30 kg/m² or more are likely to be at greater risk than the tables indicate:
- consider increasing one colour category.

6. In patients with very high levels of total cholesterol ( > about 8.5–9 mmol/L) or blood pressure ( > about 170/100 mmHg) the risk equations may underestimate the true risk.

For more information on the New Zealand Guidelines Group, visit their website at www.nzgg.org.nz