

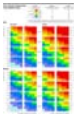




APPENDIX 2. TOOLS for ESTIMATING INDIVIDUAL STROKE and CARDIOVASCULAR RISK

Several medical organizations and studies have developed charts/tools to facilitate the process of *estimating* cardiovascular and stroke risk, based on Framingham data. Below is a sample of different formats available for possible use in practice and for discussion with patients.

FORMAT	LINK and what it offers
<p>Calculations Online <i>FREE</i></p> 	<p>www.nhlbi.nih.gov/about/framingham/strokecalc.xls</p> <ul style="list-style-type: none"> risk score¹ to predict stroke or death in patients with <i>atrial fibrillation</i> <p>www.bhsoc.org/Cardiovascular_Risk_Charts_and_Calculators.htm</p> <ul style="list-style-type: none"> Joint British Societies calculators AND coloured risk charts
<p>PDA Tools <i>FREE</i></p> 	<p>www.statcoder.com/a-fib_stroke.htm</p> <ul style="list-style-type: none"> calculates stroke risk for patients with <i>atrial fibrillation</i>¹ <p>www.statcoder.com/cholesterol.htm</p> <ul style="list-style-type: none"> calculates coronary heart disease risk <p>www.vhpharmsci.com/sparc</p> <ul style="list-style-type: none"> SPARC tool—simplified risk chart using the CHADS₂² tool to calculate stroke risk for patients with <i>atrial fibrillation</i>¹⁷
<p>Printed, colourful graphic tables, <u>no</u> calculation required <i>FREE</i></p>  <p>Calculation Charts <i>FREE</i></p> 	<p>www.nzgg.org.nz/guidelines/0035/CVD_Risk_Chart.pdf</p> <ul style="list-style-type: none"> Updated New Zealand cardiovascular disease risk prediction charts³ Single set of charts for cardiovascular disease. May save time and facilitate discussion with the patient during a scheduled office visit. Provide estimates for overall cardiovascular risk, although will “overestimate” the risk for stroke alone it does include important risk factors (e.g. cholesterol) that apply to both stroke and coronary artery disease <p>www.healthyheartkit.com</p> <p>(see physician’s guide, then click on Introduction section, scroll to pages 19-21)</p> <ul style="list-style-type: none"> Healthy Heart Kit: separate charts for stroke and coronary heart disease Framingham stroke equations⁴
<p>Online Patient Self-Assessment <i>FREE</i></p> 	<p>www.heartandstroke.ca* Heart and Stroke Foundation of Canada</p> <p>www.americanheart.org American Heart Association</p> <p>www.strokeassociation.org American Stroke Association</p> <p>www.chiprehab.com Cardiovascular Health Improvement Program</p> <p>Encourage <i>individuals</i> to do their own personal risk assessment, and then provides information related to specific risk factors.</p> <p><i>*Note:</i> provides personalized patient follow-up support by email, promoting healthy lifestyle</p>
<p>NOTE: Many experts argue that the use of a <i>combined</i> cardiovascular disease tool is clinically more relevant and helpful than calculating stroke risk only. Others support separate calculations to provide more detailed information. Tools are continuously being improved and updated. However, it is <i>not clear</i> whether one tool is evidently more sound than another, as few studies have compared various risk assessment tools for accuracy and ease of use.</p>	

Sources: 1. Wang TJ, Massaro JM, Levy D, Vasan RS, Wolf PA, D’Agostino RB, Larson MG, Kannel WB, Benjamin EJ. A Risk Score for Predicting Stroke or Death for Individuals with New-Onset Atrial Fibrillation in the Community: The Framingham Heart Study. *JAMA* 2003;290:1049-1056. 2. Gage BF, Waterman AD, Shannon W, Boechle M, Rich MW, Radford MJ. Validation of clinical classification schemes for predicting stroke: results from the National Registry of Atrial Fibrillation. *JAMA* 2001;285(22):2864-70. 3. Jackson, R. Updated New Zealand cardiovascular disease risk-benefit prediction guide. *BMJ* 2000;320:709-710. 4. D’Agostino RB, Wolf PA, Belanger AJ, Kannel WB. Stroke risk profile: adjustment for antihypertensive medication—the Framingham Study. *Stroke* 1994;25:40-43.

