

QUESTIONNAIRE: CARDIOVASCULAR RISK ASSESSMENT

Name (optional): _____

Date: _____

Cardiovascular Disease: The Number One Killer

Cardiovascular disease is the biggest cause of death in Australia and New Zealand, with one person dying from it every 10 minutes. That's over 50,000 people per year dying from heart attacks, strokes and blood clots.

What Is Cardiovascular Disease?

Cardiovascular disease is the accumulation of fat in the arteries. This fat can cause blood clots to form and, if large enough, can completely block a blood vessel. When a clot blocks a blood vessel that is feeding the heart, part of the heart will die. This is called a heart attack. If a clot blocks a blood vessel connected to the brain, part of the brain will die, and this is called a stroke.

What Causes Cardiovascular Disease?

Most people know that high cholesterol and blood pressure contribute to your risk of a heart attack. Knowing your cholesterol level and blood pressure is an important step in reducing your risk. However, 50% of people who have heart attacks don't have high cholesterol or high blood pressure. There are other important factors that can increase your risk of cardiovascular disease.

You may have risk factors which haven't been measured by your doctor. For example, you may be under stress, not doing enough exercise, have poor immune function or be eating too much sugar. These are just a few of the many factors that may cause cardiovascular disease.

How Do I Reduce My Risk of Cardiovascular Disease?

To reduce your risk of cardiovascular disease you need to know what may be putting you in danger and what you can do about it. This questionnaire will help identify your risk of cardiovascular disease and allow you and your Healthcare Practitioner to decide on the most appropriate dietary changes, lifestyle changes or supplements to help you maintain a healthy heart and blood vessels.

How Do I Complete This Questionnaire?

- There are two parts to this questionnaire. Part 1 is for you, the patient, to fill in. Part 2 is for your Practitioner to complete.
- This questionnaire may be completed with or without blood test results; however, having the test results is preferable as it will give a more accurate assessment of your risk. If possible, please obtain the following tests from your doctor:
 - HDL Cholesterol
 - LDL Cholesterol
 - Triglycerides
 - Apo B / Apo A1 ratio
 - Lipoprotein (a)
 - C-reactive protein (hs-CRP)
 - Homocysteine
 - Fibrinogen
 - Fasting glucose / Glucose tolerance test / HbA1c
 - Blood Pressure

Part 1 – For the Patient:

- You must answer every question.
- Each answer to a question has a numbered score in the right-hand column.
- Read the instructions of every question carefully. For some questions you need to circle only one score, while for others you will need to circle all the scores that apply to you.
- If you don't know the answer to a question, circle "Don't know".
- At the end of each numbered section, add the scores for that section in the "Total" area provided (shaded).
- Your Practitioner will complete your assessment by filling out Part 2 for you.

Part 2 – For the Practitioner:

- Fill out Part 2 using your patient's pathology results, or the alternatives offered at each question.
- Write the total scores from each category of Part 1 and Part 2 on the Score Sheet (page 11).
- Based on the total for each category, tick the appropriate "priority" box.
- Add the total column for each category to achieve a total Cardiovascular Score.
- Classify your patients total Cardiovascular Risk based on this score.



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PART 1: PATIENT QUESTIONNAIRE – PATIENT TO FILL OUT

AGE

Section 1 – How old are you? (Circle one score)

Under 30	0
30 – 34	1
35 – 39	6
40 – 44	15
45 – 49	40
50 – 54	70
55 – 59	100
60 – 64	110
65 – 69	120
70 – 74	130
75 and over	140
Add Age Total:	

CARDIOVASCULAR HISTORY

Section 1 – (Circle score if applicable)

Do you have diagnosed cardiovascular disease, atherosclerosis, previous heart attack, and/or previous stroke?	100
Have you experienced angina (heart pain) within the last 3 months?	150
Add Cardiovascular History Total:	

FAMILY HISTORY

Section 1 – (Circle score if applicable)

Mother with cardiovascular disease at less than 65 years (high blood pressure, heart attack, angina, stroke, hardening of the arteries)	15
Father with cardiovascular disease at less than 55 years (high blood pressure, heart attack, angina, stroke, hardening of the arteries)	15
Parent with type II diabetes (adult-onset diabetes)	15
Add Family History Total:	

LIFESTYLE

Section 1 – Exercise (Circle one score)

Moderate exercise is brisk walking, jogging, cycling, swimming, playing sports or any exercise that increases breathing and heart rate continuously for at least 20 minutes.

Sedentary – moderate exercise less than once a week	20
Moderate exercise (average once per week)	1
Moderate exercise (average 2 – 3 times per week)	-10
Moderate exercise (average 4 – 5 times per week)	-20
Moderate exercise (average 5 or more times per week)	-25

Section 2 – Smoking (Circle one score)

Never smoked	0
Ex-smoker	10
Current smoker, less than 20 cigarettes per day	50
Current smoker, more than 20 cigarettes per day	80

Section 3 – Passive smoking (a non-smoker exposed to smoke most days at home or work) (Circle one score)

Yes	25
No	0

Section 4 – Alcohol (Circle score if applicable)

Average 0 drinks daily	0
Average 1 drink daily or 7 units per week	-10
Average 2 drinks daily or 14 units per week	-5
Average 3 or more drinks daily or 21 or more units per week	5

Section 5 – Alcohol (Circle score if applicable)

Do you consume: Male: 5 or more drinks Female: 3 or more drinks in one sitting on a fortnightly or more frequent basis?	7
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Section 6 – Environment (Circle score if applicable)

Do you live on a main road?	4
Do you live in a city?	3
Do you live in an industrial area with gas emissions?	2
Do you work with any chemicals, cleaners, pesticides, petrochemicals, paints or exhausts?	4
Add Lifestyle Total (Sections 1 to 6):	

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STRESS

Section 1 – Have you experienced any of the following events in the past 6 months? (Circle score if applicable)

Death of spouse	30
Death of family member	20
Divorce/separation	20
Marital reconciliation	20
Jail term	20
Major illness/injury/surgery	20
Marriage	10
Dismissal from work	10
Retirement	10
Death of a friend	8
Illness in the family	8
Sexual difficulties	5
Pregnancy	5
Moving to a new town/city/country	5
Family/relationship disputes	5
Change in financial state	3
Change of occupation	3
Change in work responsibilities	3
Mortgage	3
Major family events – weddings, births in the immediate family	3
Son or daughter leaving home	3
Personal difficulties at work	3
Outstanding personal achievement	2
Change in residence	2
Change in schools	2
Change in social habits	2
Change in routine	2
Holidays	2
Christmas	2
Minor violations of the law	2

Section 2 – Do you participate in any of the following activities for more than an hour a week? (Circle score if applicable)

Meditation/prayer	-5
Yoga/stretching/relaxation exercises	-5
Community events/social activities/sports	-5
Playing with pets	-4

Section 3 – (Circle score if applicable)

Do you feel anxiety, worry, fear, sudden feelings of panic, inability to control breathing and accelerated heart rate when upset, or recurrent feelings of unease?	Weekly or more: 40
	Monthly or more: 20
Do you have feelings of sadness, depression, hopelessness, apathy, gloom, helplessness, isolation, loneliness, or lack of interest in social interaction?	Weekly or more: 30
	Monthly or more: 15
Are you easily angered or frustrated, feel resentment or hostility towards others or frequently irritable?	Weekly or more: 25
	Monthly or more: 12
Add Stress Total (Sections 1 to 3):	

SLEEP

Section 1 – How many hours of sleep do you have on average per night? (Circle one score)

0 – 4	6
5 – 6	3
7 – 8	0
More than 8 hours	4

Section 2 – Do you experience any of the following? (Circle score if applicable)

Snoring	3
Obstructive sleep apnoea	10
Insomnia, difficulty falling asleep or interrupted sleep	3
Add Sleep Total (Sections 1 to 2):	

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BOWEL TOXICITY

Section 1 – Do you regularly experience lower abdominal pain, gas, bloating, diarrhoea, constipation, straining when passing bowel motions, excessively smelly stools and/or a feeling that your bowels do not completely empty? (Circle one score)

Yes	8
No	0

Section 2 – Have you taken the oral contraceptive pill for more than 6 months in the last year? (Circle one score)

Yes	5
No	0

Section 3 – For what length of time have you been on antibiotics in the last year? (Circle one score)

Less than 2 weeks	0
2 weeks – 2 months	2
2 – 6 months	5
Longer than 6 months	10
Add Bowel Toxicity Total (Sections 1 to 3):	

BLOOD SUGAR

Section 1 – (Circle score if any of these statements are applicable)

Do you feel your energy levels drop within an hour of eating? and /or Do you experience cravings for sweets or chocolate? and /or Do you have headaches or an inability to concentrate which is relieved by eating?	10
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Section 2 – Are you diabetic? (Circle score if applicable)

Yes	100
No	0
Add Blood Sugar Total (Sections 1 to 2):	

INFLAMMATION AND PAIN

Section 1 – Do you experience any of the following symptoms more than once a month? (Circle score if applicable)

Wheezing, sneezing, a runny nose, sore throat, itchy or watery eyes, coughing and/or blocked nose	5
Heart palpitations or headaches after certain foods	5

Section 2 – Do you experience recurrent pain? (Circle one score)

Daily	30
Weekly	15
Monthly or less	5
Never	0
Add Inflammation and Pain Total (Sections 1 to 2):	

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DIET

1	How often do you usually eat fried foods?	Less than once a week	1 – 2 times a week	3 – 6 times a week	Every day
		0	1	5	10
2	How many serves of bread, pasta, rice, potatoes or other starchy foods do you have a day?	0 – 1 serves daily	2 serves daily	3 serves daily	4 or more serves daily
		0	0	2	4
3	How many servings of sweet foods like cakes, biscuits, lollies and/or chocolate do you consume a day?	Usually none	1 – 2 serves daily	More than 2 serves daily	
		0	2	8	
4	How many teaspoons of sugar do you consume daily in hot drinks, added to foods, etc.?	0 – 3	4 – 6	7 – 9	10 or more
		0	1	4	7
5	How often do you usually eat fish?	Rarely	1 – 2 times a week	3 – 6 times a week	Every day
		0	-2	-5	-10
6	How many pieces of fruit do you usually eat a day?	Usually none	1 – 3 pieces daily	4 or more pieces daily	
		0	-2	-3	
7	How many serves of vegetables (excluding potatoes) do you usually eat a day? (1 serve = approximately 1 handful)	Usually none	1 – 2 serves daily	3 – 4 serves daily	5 or more serves daily
		0	-3	-5	-10
8	How many cups of coffee do you usually drink a day?	Usually none	1 – 2 cups daily	3 – 4 cups daily	5 or more cups daily
		0	0	2	4
9	How much soft drink do you consume on average?	Less than 500 mL per week	1 – 2 L per week	3 – 4 L per week	5 L or more per week
		0	2	4	8
10	How much water do you drink a day?	0 – 500 mL	501 mL – 1.25 L	More than 1.25 L	
		7	3	0	
Add Diet Total (Sections 1 to 10):					

End of patient section.

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PART 2: PATIENT ASSESSMENT – PRACTITIONER TO FILL OUT

LIPIDS

Section 1 – HDL (Circle one score)

High-density lipoprotein cholesterol less than 1.1 mmol/L	20
High-density lipoprotein cholesterol between 1.1 – 1.5 mmol/L	0
High-density lipoprotein cholesterol more than 1.5 mmol/L	-15
Don't know	0

Section 2 – Triglycerides (Circle one score from one category)

Triglycerides less than 1.0 mmol/L	0
Triglycerides between 1.0 – 2.0 mmol/L	4
Triglycerides between 2.1 – 3.0 mmol/L	15
Triglycerides between 3.1 – 5.0 mmol/L	20
Triglycerides more than 5.0 mmol/L	25
Don't know (no blood test results for triglycerides/ chylomicrons)	5

Section 3 – LDL (Circle one score)

Low-density lipoprotein cholesterol less than 2.5 mmol/L	0
Low-density lipoprotein cholesterol between 2.5 – 3.3 mmol/L	5
Low-density lipoprotein cholesterol between 3.4 – 4.1 mmol/L	20
Low-density lipoprotein cholesterol between 4.2 – 4.9 mmol/L	30
Low-density lipoprotein cholesterol more than 4.9 mmol/L	50
Don't know	5

Section 4 – ApoB/ApoA1 ratio (Circle one score)

ApoB/ApoA1 ratio less than 0.8	0
ApoB/ApoA1 ratio between 0.8 – 1.0	10
ApoB/ApoA1 ratio between 1.1 – 1.23	20
ApoB/ApoA1 ratio between 1.24 – 2.0	35
ApoB/ApoA1 ratio more than 2.0	50
Don't know	5

Section 5 – Lipoprotein (a) (Circle one score)

Lipoprotein (a) less than 30 mg/dL	0
Lipoprotein (a) more than 30 mg/dL	10
Don't know	5
Add Lipid Total (Sections 1 to 5):	

BLOOD PRESSURE

Section 1 – Systolic blood pressure (Circle one score from one category)

Less than 120 mm Hg	0
120 -129 mm Hg	8
130 -139 mm Hg	20
140 -160 mm Hg	40
More than 160 mm Hg	60
Don't know	10
Add Blood Pressure Total:	

LIVER AND BOWEL TOXICITY

Section 1 – (Circle one score from one category)

Metagenics Detoxification Questionnaire*	
Total score below 35	0
Total score above 35 and scores below 12 for sections 2 or 3	4
Total score above 35 and scores above 12 for sections 2 or 3	10
Add Liver and Bowel Toxicity Total:	

*Available for download from the Metagenics website.

STRESS

Section 1 – (Circle one score from one category)

If your patient has had cortisol levels tested in blood or saliva, do they have?	
Abnormal cortisol levels, rhythms or ratios	12
Normal cortisol	0
OR	
Don't know	4
Add Stress Total:	

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INFLAMMATION AND PAIN

Section 1 – C-reactive protein: hs-CRP assay (Circle one score)

C-reactive protein less than 1.2 mg/L	0
C-reactive protein between 1.2 – 3.3 mg/L	10
C-reactive protein between 3.4 – 5.0 mg/L	20
C-reactive protein more than 5.0 mg/L	34
Don't know	5

Section 2 – Homocysteine (Circle one score)

Homocysteine less than 9 µmol/L	0
Homocysteine between 9 – 11.9 µmol/L	2
Homocysteine between 12 – 14.9 µmol/L	5
Homocysteine between 15 – 20 µmol/L	10
Homocysteine more than 20 µmol/L	20
Don't know	4

Section 3 – Fibrinogen (Circle one score from one category)

Fibrinogen less than 3.0 g/L	0
Fibrinogen between 3.1 – 4.0 g/L	6
Fibrinogen more than 4.1 g/L	12
Don't know	3

Section 4 – Urinary pH (Circle one score)

Less than or equal to 5.5	8
6.0 - 6.5	4
More than or equal to 7.0	0
Don't know	2

Section 5 – Does your patient have any of the following? (Circle all applicable scores)

High serum uric acid/gout	15
Rheumatoid arthritis	30
Systemic lupus erythaematosus (SLE)	60
Any other autoimmune disease (e.g. Scleroderma, Sarcoidosis, multiple sclerosis, Sjogrens syndrome, fibromyalgia, polymyalgia rheumatica, undiagnosed joint or muscle pain unrelated to injury, ulcerative colitis, Crohn's disease)	20
Asthma, allergies, hayfever, rhinitis, sinus, eczema, psoriasis, dermatitis, hives, urticaria, skin rashes, food sensitivities, irritable bowel syndrome	12
History of chronic infection e.g. Epstein Barr virus, Ross River fever, Cytomegalovirus, Barmah forest virus, Chlamydia	15
Poor immunity, recurrent infections, frequent catching of colds	5
Gum infection, periodontal disease, recurrent bleeding gums	8
Add Inflammation and Pain Total (Sections 1 to 5):	

THYROID FUNCTION

Section 1 – (Circle one score)

Normal thyroid function	0
Medically diagnosed hypothyroidism or TSH > 4.0	20
Medically diagnosed hyperthyroidism or TSH < 0.4	20
Don't know	4
Add Thyroid Function Total:	

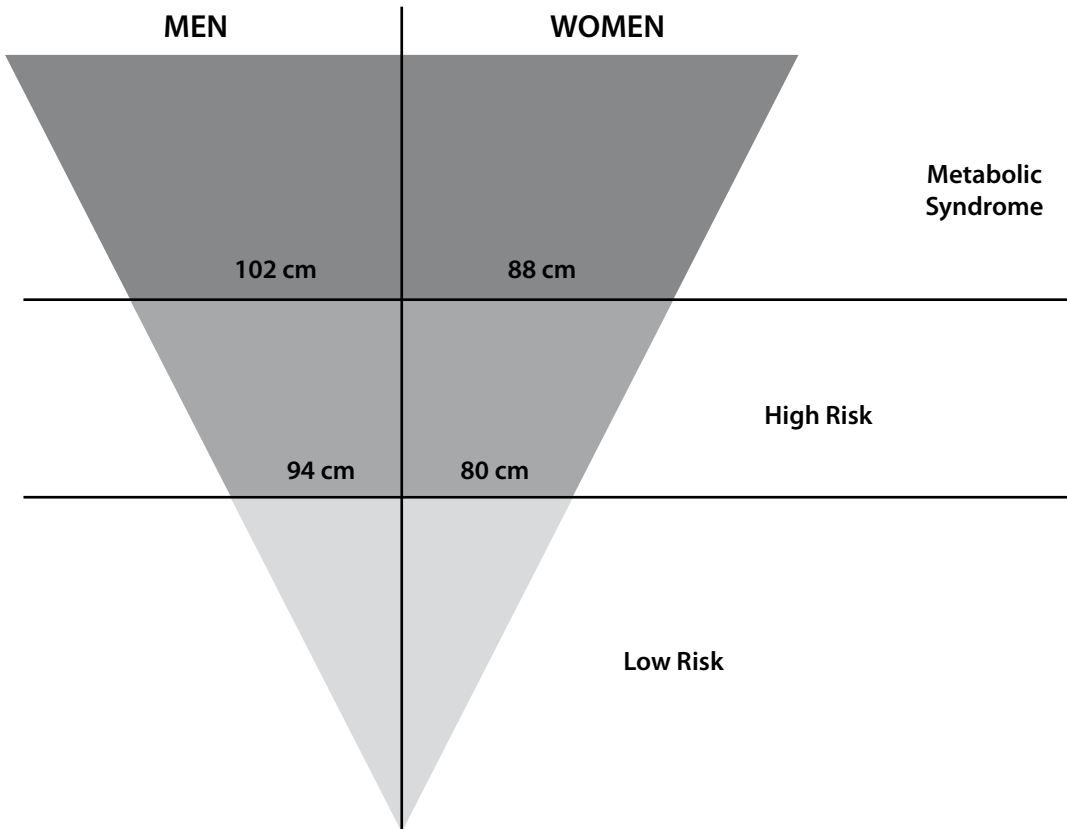
BLOOD SUGAR

Section 1 – Use one of the following categories with recent results (within the last 12 months) to assess blood glucose control (Circle one score from one category)

Fasting blood glucose:	
Fasting glucose less than 5.5 mmol/L	0
Fasting glucose 5.5 – 6.9 mmol/L	20
Fasting glucose more than 6.9 mmol/L	50
OR	
Glucose tolerance test	
2 hr glucose less than 7.8 mmol/L	0
2 hr glucose 7.8 – 11.0 mmol/L	20
2 hr glucose more than 11.0 mmol/L	50
OR	
HbA1c	
HbA1c less than 5.0%	0
HbA1c 5.0 – 5.4%	15
HbA1c 5.5 – 7.0%	25
HbA1c more than 7.0%	50
OR	
Don't know	15
Add Blood Sugar Total:	

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WAIST MEASUREMENT



Men	
Waist ≤ 94 cm	0
Waist 95 - 101 cm	25
Waist ≥ 102 cm	50
Women	
Waist ≤ 80 cm	0
Waist 81 - 87 cm	25
Waist ≥ 88 cm	50
Add Waist Measurement Total:	

* Measurement average for European, African and Middle Eastern descent. For other groups, see table below.

Country/ethnic group	Waist circumference (as measure of central obesity)	
Europids	Male	≥ 94 cm
	Female	≥ 80 cm
South Asians	Male	≥ 94 cm
	Female	≥ 80 cm
Chinese	Male	≥ 94 cm
	Female	≥ 80 cm
Ethnic South and Central Americans	Use South Asian recommendations until more specific data are available	

WEIGHT MANAGEMENT (MEN)

BIA – Bioimpedance Analysis	
Percentage of body fat less than 15%	0
Percentage of body fat is between 15 – 20%	2
Percentage of body fat is between 21 – 26%	10
Percentage of body fat more than 26%	25
Don't know	2
MEN: Add Weight Management Total:	

WEIGHT MANAGEMENT (WOMEN)

BIA – Bioimpedance Analysis	
Percentage of body fat less than 25%	0
Percentage of body fat is between 25 – 29%	2
Percentage of body fat is between 30 – 35%	10
Percentage of body fat more than 35%	25
Don't know	2
WOMEN: Add Weight Management Total:	

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SCORE SHEET

CATEGORY	SCORE			PRIORITY (Mark appropriate category based on total score)
	Part 1	Part 2	TOTAL	
Age				Not a modifiable risk factor
Cardiovascular history				Low: (0 – 30) Medium: (31 – 50) High: (51 and above)
Family history				Not a modifiable risk factor
Lifestyle				Low: (-35 – -10) Medium: (-9 – 21) High: (22 and above)
Stress				Low: (-19 – 20) Medium: (21 – 40) High: (41 and above)
Sleep				Low: (0 – 5) Medium: (6 – 11) High: (12 and above)
Bowel toxicity				Low: (0 – 3) Medium: (4 – 9) High: (10 and above)
Blood sugar				Low: (0 – 19) Medium: (20 – 49) High: (50 and above)
Inflammation and pain				Low: (0 – 19) Medium: (20 – 42) High: (43 and above)
Diet				Low: (-19 – 6) Medium: (7 – 13) High: (14 and above)
Lipids				Low: (-15 – 9) Medium: (10 – 34) High: (35 and above)
Blood pressure				Low: (0 – 9) Medium: (10 – 29) High: (30 and above)
Thyroid function				Low: (0 – 7) Medium: (8 – 13) High: (14 and above)
Weight management				Low: (0 – 11) Medium: (12 – 25) High: (26 and above)

Add Total Cardiovascular score: _____

TOTAL CARDIOVASCULAR RISK		
RISK	SCORE	RELATIVE RISK
Low risk:	-88 – 100	Less than 1
Moderate risk:	101 – 220	1 – 3 risk
High risk:	221 – 350	3 – 5 risk
Very high risk:	351 and above	5+ risk