



# Coronary Risk Profile

**Instructions:** For each risk factor, check the box in the column that best describes you. Write the score shown next to the check box, in the score column to the right. When completed, sum all of the scores in the right column to determine your overall coronary risk score. Also count the number of major risks\* (scores of 10+) you have (listed in rows 1-10, marked with an (\*)).

Risk Factors	Column A	Column B	Column C	Score
<b>1. Age.</b> Indicate your age range.	<input type="checkbox"/> 0 Men < 40, women <50	<input type="checkbox"/> 4 Men 40-44, women 50-54	<input type="checkbox"/> 10* Men 45+, women 55+	
<b>2. Family history of early heart disease</b> in a brother, sister, or parent. They had a heart problem before 55 in men or 65 in women	<input type="checkbox"/> 0 No	-----	<input type="checkbox"/> 10* Yes	
<b>3. Personal history.</b> Has a doctor told you that you have coronary heart disease, or experienced a heart attack (MI) or stroke?	<input type="checkbox"/> 0 No	-----	<input type="checkbox"/> 20* Yes	
<b>4. Physical activity.</b> Number of days you get 30+ minutes of moderate to vigorous physical activity.	<input type="checkbox"/> 0 4 to 7 days per week	<input type="checkbox"/> 4 2 to 3 days per week	<input type="checkbox"/> 10* No regular physical activity program	
<b>5. Smoking.</b> Indicate your present status.	<input type="checkbox"/> 0 Never smoked regularly	<input type="checkbox"/> 4 Stopped smoking	<input type="checkbox"/> 10* Current smoker	
<b>6. Blood pressure.</b> Do you have high blood pressure?	<input type="checkbox"/> 0 Normal blood pressure, less than 120/80	<input type="checkbox"/> 5 Pre-hypertension 120/80 to 139/40	<input type="checkbox"/> 10* High, 140/90+ or taking medication for high BP	
<b>7. Total cholesterol (mg/dL).</b> Do you have high blood cholesterol levels or high LDL? (If you don't know, skip for now but find out.)	<input type="checkbox"/> 0 Low chol., less than 200 or LDL less than 130	<input type="checkbox"/> 10* Elevated chol. 200-239 or LDL 130-159	<input type="checkbox"/> 12* High chol. 240 or higher or LDL of 160 or higher	
<b>8. HDL Cholesterol (mg/dL).</b> Do you have low HDL cholesterol levels? (If you don't know, skip for now but find out.)	<input type="checkbox"/> 0 High HDL levels, 60+	<input type="checkbox"/> 2 Average HDL 40--59	<input type="checkbox"/> 10* Low HDL, less than 40	
<b>9. Diabetes.</b> Are you a diabetic or have high blood sugar levels?	<input type="checkbox"/> 0 No diabetes. Normal blood sugar. Fasting <100 mg/dL Non-fasting <140 mg/dL	<input type="checkbox"/> 5 Prediabetes Fasting 100-125 mg/dL Non-fasting 140-199	<input type="checkbox"/> 20* Diabetic, or Fasting 126+ mg/dL Non-fasting 200+ mg/dL	
<b>10. Body weight.</b> Indicate your weight range (refer to BMI chart on back side, and waist girth standards).	<input type="checkbox"/> 0 Healthy weight BMI < 25	<input type="checkbox"/> 5 Overweight BMI 25-29.9	<input type="checkbox"/> 10* Obese, BMI 30+ or waist girth 35+ women, 40+ men	
<b>11. Breads and cereals.</b> What kind do you usually eat?	<input type="checkbox"/> 0 Eat whole wheat bread, oatmeal, brown rice, and other whole-grains	<input type="checkbox"/> 1 Half the time eat white bread, white rice, and refined cereals	<input type="checkbox"/> 3 Usually eat white bread, white rice, and refined cereals	
<b>12. Fruits and vegetables.</b> How many servings of fruits, vegetables, and legumes do you usually eat daily?	<input type="checkbox"/> 0 5-9 or more servings/day	<input type="checkbox"/> 1 3-4 servings/day	<input type="checkbox"/> 2 0-2 servings/day	
<b>13. Fats eaten.</b> What kinds of added fats do you usually eat?	<input type="checkbox"/> 0 All vegetable oils, no animal or solid fats	<input type="checkbox"/> 1 Use some of both kinds of fats	<input type="checkbox"/> 2 Mostly solid fats, butter, or hard stick margarine	
<b>14. High saturated fat foods</b> How often do you eat sausage, steak, French fries, rich desserts, hamburgers, cheese, etc.?	<input type="checkbox"/> 0 Seldom or never eat these foods, 0-2 times/week	<input type="checkbox"/> 1 Occasionally, 3-5 times/week	<input type="checkbox"/> 4 Often, 1-2 times/day or more	
<b>15. Nuts/seeds.</b> How many servings do you eat weekly? 1 serving = 1 oz or 2T nut butter (peanut butter etc.)	<input type="checkbox"/> 0 5+ servings/week	<input type="checkbox"/> 1 2-4 servings/week	<input type="checkbox"/> 3 Seldom or never eat nuts	
<b>16. Water.</b> How many glasses (8 oz.) of water do you drink daily?	<input type="checkbox"/> 0 5+ glasses per day	<input type="checkbox"/> 1 1-4 glasses per day	<input type="checkbox"/> 2 less than 1 glass per day	

**Number of Major Risks** Count one for each major\* risk (numbers 1-10 in column C above). Compare to risk rating below.

Risk Rating	# of risks	Major Risk Factors	Obesity, BMI 30+ Cholesterol 240+ Smoker
Ideal risk	None	Early family history CHD	
Low risk	0-1 risks	Blood pressure 140/90+	
Increased risk	2-3 risks	Inactive (if very active, - 1)	Age, M 45+, W 55+
High risk	4 or more	HDL <40 (60+, minus one)	Diabetes or Hx MI

**Overall Coronary Risk Score** Sum scores to see your overall risk. If your total score adds up to at least 12 points, and you exercise 30+ minutes, 5 or more days per week, or your HDLs are 60+, subtract 10 points from the total. Put final score in the lower box and mark (X) it on the risk scale below.



\* A score of 20+ indicates increased risk. A score of 40+ is high risk. Use the coronary risk score to track progress on repeat tests.



# Preventing Heart Disease

## Practical Guidelines for Reducing Risk

### Current Trends

Heart disease is the leading cause of death in America<sup>1</sup>. This year some 1.1 million people will suffer a heart attack, and 530,000 will die from it (about 45%). Half of those dying from a heart attack have no warning (63% in women). This is why prevention is so important. Don't wait for a problem to develop, take preventive action now.

The good news is that recent studies demonstrate that heart disease is largely preventable by adopting a healthy lifestyle. In the MRFIT heart study and others, researchers conclude that 76-92% of heart disease (in men and women) can be prevented by a healthy lifestyle if there are no modifiable risk factors<sup>2</sup>.

### Preventive Actions You Can Take

Refer to your Risk Profile to identify any risks you have. Then use these 7 key steps to reduce your risk of a heart attack.

- 1. Achieve and maintain a healthy weight<sup>4</sup>** Excess body fat, measured as body mass index (BMI), is a primary risk factor for heart health. Obesity, a BMI of 30 or higher, contributes to high blood pressure, high cholesterol, low HDL, sedentary lifestyle, and increased risk for diabetes. These are all major factors that cause heart disease. Check your BMI in the chart below (height in inches, weight in pounds). Maintain a healthy weight -- a BMI less than 25. Even a 10-15 pound weight loss reduces risk substantially.

Ht in.	Lean BMI 23	Overweight BMI 25-29	Obese 1 BMI 30-34	Obese 2 BMI 35+
4' 10"	110	119-142	143-166	167+
5' 0"	118	128-152	153-178	179+
5' 2"	125	136-163	164-190	191+
5' 4"	134	145-173	174-202	203+
5' 6"	142	155-185	186-215	216+
5' 8"	151	164-196	197-229	230+
5' 10"	160	174-208	209-242	243+
6' 0"	169	184-220	221-257	258+
6' 2"	179	194-232	233-271	272+
6' 4"	189	205-245	246-286	287+

**Note:** "Healthy Weight" is defined as a BMI of 18.5 to 24.9. A BMI of 20-23 is ideal for most women; 21-24.9 for most men.

- 2. Get regular physical activity<sup>4</sup>** Exercise is a key therapeutic action for both treatment and prevention of heart disease. Regular activity helps control weight, high blood pressure, blood fats, and insulin resistance that is closely linked to diabetes and increased coronary risk. Get your doctors guidance if you have existing health problems.

U.S. guidelines state, "Every U.S. adult should accumulate 30 minutes or more of moderate-intensity physical activity on most, preferably all, days of the week."<sup>3</sup> Walking is one of the safest activities nearly everyone can do. It may cut your risk of heart disease by half when done regularly.

- 3. Not smoking<sup>4</sup>** Smoking is a major cause of heart attacks. If you stop smoking you greatly reduce your risk! Ask your doctor for guidance and about medications that can double your chances of stopping successfully.

- 4. Limit animal fats and cholesterol<sup>4</sup>** Foods that raise the cholesterol levels the most are those highest in saturated fat and trans fats (hydrogenated vegetable oils). Limit these foods:

- High fat meats: sausage, hot dogs, hamburger, steak, fried chicken, bacon, etc.
- High fat dairy: whole milk, cream, cheese, ice cream
- Solid fats: butter, lard, shortening, hard stick margarine
- Baked goods using solid or hydrogenated fats (most cakes, pies, pastry, snack crackers, microwave popcorn
- Deep fat fried foods: fries, doughnuts, etc.
- Rich desserts

- 5. Choose healthy fats.<sup>4</sup>** Foods rich in vegetable oils that have not been hydrogenated are the safest to use. They actually help reduce cholesterol and heart disease.

Examples include:

- Olive oil, Canola and soy oils, olives, and avocados
- Trans fat free margarines, especially the type with added plant sterols/stanols which can lower cholesterol directly
- Nuts, seeds, peanut butter and almond butter, flax seeds or meal, and tahini (sesame butter). Nuts are especially protective to the heart. The Nurses' Health study and others showed that those who ate 5+ oz. of nuts weekly cut their risk of heart disease by one-third to one-half.

- 6. Eat more high fiber foods.<sup>4</sup>** Unrefined foods, high in dietary fiber, help trap cholesterol and rid it from the body. High fiber foods also slow the absorption of carbohydrate and decrease the insulin demand protecting against the development of diabetes. Aim to eat at least 3 or more servings of whole-grain foods daily while limiting white bread, snacks, sugar and other refined foods. This could cut your risk of heart disease in half.

Eat at least 15 grams of dietary fiber per 1000 calories eaten per day. That's generally 30+ grams of dietary fiber daily. Good sources of high fiber foods include:

- Whole-grain breads, oatmeal, brown rice, cereal
- Fruits: apples, bananas, berries, melons, citrus
- Vegetables: salads, greens, squash, broccoli, cabbage, tomatoes, peppers, peas, stir fry
- Legumes: peas, lentils, beans, garbanzos, soy, nuts

- 7. Regular checkups<sup>4</sup>** Know your risk numbers! Keep your...

- Blood pressure less than 120/80.
- LDL cholesterol <130 mg/dL (<100 is ideal).
- Fasting blood glucose level less than 100 mg/dL.
- HDL cholesterol greater than 40 mg/dL (60+ is ideal).

**Summary.** Take preventive steps now. By following these positive health guidelines you can lower your chances of ever developing heart disease. Some studies document as much as 80-90% decreased risk. You will also certainly look and feel your best. Get help from your doctor, a dietitian, or health counselor as needed in making therapeutic lifestyle changes.

#### References

1. AHA, 2006 Heart and Stroke Statistical Update, AmericanHeart.org
2. Jeremiah Stamler, et al, Low risk-factor profile and long-term cardiovascular mortality and life expectancy, *JAMA* 282(21):2012-2018, Dec. 1, 1999
3. CDC and the American College of Sports Medicine. *JAMA*, Vol. 273, No. 5
4. NIH, NCEP, Adult Treatment Panel III Report, 2001, NCEP website, 2006