

Cardiovascular (including coronary) risk factors

Cardiovascular disease includes coronary heart disease, cerebrovascular disease (causing strokes and transient ischaemic attacks) and peripheral vascular disease. The basic cause of most disorders is a build up of atheroma (a fatty deposit) within the lining of arteries. These patches of atheroma can trigger off a blood clot (thrombosis).

The problem of coronary heart disease

The number one cause of death in modern Western society is *coronary heart disease (CHD)*, whether it be from sudden fatal heart attacks or blocked coronary arteries causing angina and heart failure. CHD is responsible for 1 in 3 deaths in Australia. However, there has been a very pleasing reduction in deaths from coronary heart disease and stroke in the past 20 years because people have made the effort to reduce their risk factors. In spite of this, it is still a major cause of preventable death and we still need to work hard at reducing the risk.

What are the risk factors?

- Hypertension (high blood pressure)
- Smoking
- High cholesterol
- Increasing age
- Diabetes
- Obesity
- Lack of exercise
- Stress
- Alcohol excess
- Family history

These risk factors increase the likelihood of development of hardening of the arteries (or *atherosclerosis*) due to atheroma; the benefit of reducing them is obvious. The factors are interrelated; for example, excessive intake of alcohol will lead to hypertension.

Hypertension

The higher the blood pressure, the greater the risk. Regular checks, say yearly for people over 40 years, are advisable. Doctors recommend that you have the diastolic level (lower level) of blood pressure kept at 90 mmHg or below.

Smoking

Cigarette smoking has been clearly shown to increase the risk of heart disease. The death rate from coronary heart disease is about 70% higher for smokers than for non-smokers and for very heavy smokers the risk is almost 200% higher. The more one smokes, the greater the risk.

It has also been proved that the incidence of heart disease falls in those who have given up smoking.

High cholesterol

It has been proved that high blood cholesterol is related to heart attacks. High cholesterol is caused by a diet high in *saturated* fats, as compared with *polyunsaturated* fats. It is recommended that every effort should be made to keep the total blood cholesterol level as low as possible and preferably below 5.5 mmol/L in adults and the low density to high density cholesterol ratio below 4. This acceptable level can usually be achieved through dieting. Saturated fats are found in regular milk and its products (e.g. cream, butter, cheese); fatty meats; pies and pastries, cakes, biscuits and croissants; cooking fats; most fast foods and potato crisps.

Stress and heart attacks

The stress of our modern lifestyle is regarded as a risk factor. Evidence for this is supported by the increased incidence of heart attacks in Asians (who have a low incidence) when they move into Western societies or become business executives in their own environment. Consider ways to modify your stress factors and seek relaxation programs such as meditation. Stress also causes the liver to produce more cholesterol.

The significance of risk factors

Most of the risk factors are interdependent, and if two or more are present they have a multiplication effect. If only one risk factor is present, the patient does not have so much cause for concern. Your doctor is the best person to assess the combined risk.

Rules for living

- Do not smoke.
- Drink alcohol in only very small amounts or not at all.
- Keep to an ideal weight and waist size.
- Avoid saturated fats.
- Select preferably low-GI foods.
- Have a low-salt diet.
- Be careful of CATS—Caffeine, Alcohol, Tobacco, Sugar.
- Take regular exercise.
- Practise relaxation.

