

# Diet in the Prevention and Prognosis of Cardiovascular Problems

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*Cardiovascular disease is a major health problem and dietary intake has a great influence on its risks and prognosis. Cardiovascular risk factors include high fat intake, diets high in sodium and deficiencies in vitamins, minerals and essential fatty acids. A diet low in fat, salt, sugar and high in fibre is recommended.*

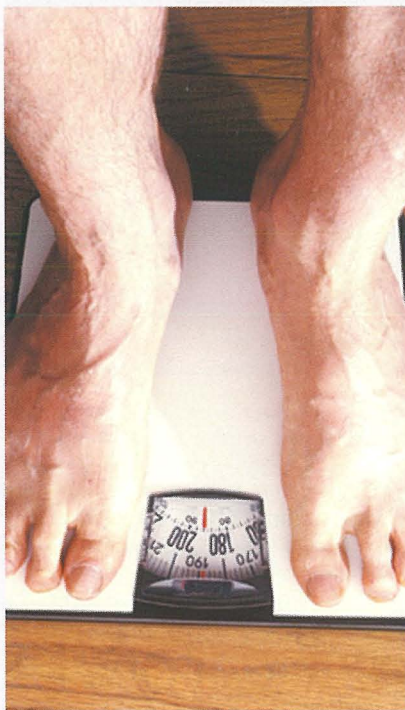
Diet is an important contributory factor in the development and regression of cardiovascular disease and atherosclerotic plaques. It has been established that high concentration of cholesterol in the blood can cause these plaques and that dietary intervention is beneficial. Research has shown that the formation of atherosclerotic plaques begins in infancy. Therefore a preventive diet is recommended for all healthy children over the age of two years.

Dietary practices which contribute to this disease include high fat intake as well as deficiencies in anti-oxidants like vitamin C, E and selenium. Magnesium, chromium, niacin, vitamin B<sub>6</sub>, essential fatty acids, linoleic acid and linolenic acid may also play a part.

Diets low in total fat, saturated fat, hydrogenated fats, cholesterol and sodium are important. In particular, fat intake should not exceed 30% of the total calories (whilst limiting saturated fat intake to less than 10% of calories). Very low fat intake can be consumed safely with supplemental fatty acids or the use of good-quality cold-pressed vegetable oils to obtain our necessary linolenic acid. Cholesterol intake is limited to no more than 300 mg/day.


A high fibre diet is also recommended, as it reduces the risk of cardiovascular disease by improving the HDL to LDL ratio. In fact it is suggested that fibre intake is increased to up to 25g/day in patients suffering from cardiovascular disease. Salt and excess sugar intake are also well known to be detrimental to this condition. In addition to a low-fat and high-fibre intake, a low-salt and low-sugar diet is thus also suggested. Avoiding salted and pickled or cured foods is recommended. More complex carbohydrates, including mostly whole grain and vegetable foods are recommended.

The types of fat which are consumed are also important. Saturated fats are



best avoided. Particularly important oils are contained in the coldwater fish such as salmon, mackerel, sardines and herring. These contain eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), which have a positive effect on lowering cholesterol and triglycerides. Recent research suggests that the anti-inflammatory effect of long chain n-3 polyunsaturated fatty acids (PUFAs) may stabilize atherosclerotic plaques. These PUFAs are found only in fish oils. In contrast, the n-6 PUFAs found in vegetable oils may produce inflammation and increase plaque instability. Consuming these oil-containing fish two or three times a week will result in cardiovascular benefit.

A well-balanced diet will help people minimize the tendency of cholesterol levels to rise with age. People with high levels of blood cholesterol will benefit by controlling their diet as well. Lowering intake from saturated fats and dietary cholesterol, while increasing

intake of dietary fibre, will decrease blood cholesterol levels. It will also improve the effectiveness of lipid lowering drugs. In addition to cholesterol levels, reduction of salt intake can help to alleviate high blood pressure. Finally, a good diet plays a role in reducing cardiovascular disease by helping people to maintain proper body weight. 

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