Preventing Heart Disease

Ischaemic heart disease ('heart disease' for the rest of this article) is the most common cause of death in the UK. About 3 in 10 deaths in men and about 2 in 10 deaths in women are due to heart disease in the UK. Heart disease is preventable in many people. For those already with heart disease, it may be possible to prevent or delay it getting worse.

What is heart disease?

Heart disease is due to a narrowing of one or more of the blood vessels (coronary arteries) that take blood into the heart muscle. Part of the inside lining of one or more of the coronary arteries become 'furred up' with fatty lumps. This is often called 'hardening of arteries'. The fatty lumps are called atheroma. It can be likened to scale forming on the inside of water pipes. Gradually, the build-up of atheroma narrows part(s) of the inside of the arteries. This reduces the amount of blood that can pass along into the heart muscle. A reduced blood supply can lead to a lack of oxygen (ischaemia) to parts of the heart. Angina and other heart conditions may then develop. Total blockage of an artery leads to damage to part of the heart muscle. This is called a heart attack or myocardial infarction. Prevention of atheroma may therefore prevent angina, heart attacks and other heart problems.

How can heart disease be prevented?

All people have a chance of developing atheroma and heart disease. It typically develops in people over 60 but sometimes occurs in younger people, particularly men. However, the following 'risk factors' increase the risk or chance of developing atheroma and heart disease.

- A family history of heart disease.
- Smoking.
- High blood pressure.
- A high blood cholesterol.
- Obesity.
- Lacking exercise.
- Having diabetes.
- Being male.
- A lot of stress is possibly a risk factor but difficult to prove.

These risk factors vary in their level of 'riskiness'. For example, although taking no exercise is not advised, it is not as risky as smoking. Even a smoker who keeps fit has more risk than a non smoker who does little exercise. Also, the risk factors add up. To have two, three or more risk factors is of more concern than one risk factor alone. For example, for a male smoker who takes no exercise and has a strong family history of heart disease, the chance of developing heart disease at a relatively early age is quite high. However, nothing can change some risk factors. For example, you cannot change your family history. In such people, extra effort should be made to tackle preventable risk factors, such as not smoking and taking more exercise. The following discusses briefly each risk factor. If you have a concern over one or more of these, it may be best to discuss it with a practice nurse or doctor.

FAMILY HISTORY . Most people have some relative who has heart disease. However, the *early onset* of heart disease in a first degree relative is a risk factor. This means a heart attack or angina starting in a father, mother, brother or sister before they were 60. So, for example, angina starting in an uncle aged 70 is not a strong family history of heart disease.

SMOKING . This is one of the strongest risk factors. In addition, if a smoker has other risk factors such as a family history of heart disease or diabetes, this increases the risk of developing heart disease quite a lot. The chemicals in tobacco smoke are carried in the bloodstream and affect the blood vessels. This makes the development of atheroma worse. If you smoke and are having difficulty in quitting then do seek further help and advice. Quitting smoking would be the single most effective thing to do to reduce the chance of developing heart disease.

HIGH BLOOD PRESSURE . All adults are advised to have their blood pressure checked at least every 3-5 years. High blood pressure usually causes no symptoms so most people will not know if theirs is high or not. However, a high pressure in the arteries over the years can be damaging. Mildly raised blood pressure can often be improved without medication. For example, dieting if overweight, regular exercise and cutting down excess alcohol will all help. Medication is usually advised for people with persistent high blood pressure.

DIET, WEIGHT AND CHOLESTEROL . If overweight, losing weight is advisable. Even if not overweight, a diet too high in fats can lead to a build up of cholesterol and other fats in the bloodstream. This can make atheroma worse. Diet sheets showing which foods are 'good' and which are 'bad' are commonly available. Very briefly, a diet to lower cholesterol will usually include the following. A) reducing the *total* fat content of the diet and increasing the relative proportions of protein, carbohydrates and fibre. B) changing the *type* of fat in the diet by increasing to a higher proportion of foods with mono and polyunsaturated fatty acids and reducing the proportion of foods with saturated fatty acids. In practice this means eating:

- LESS fatty meats, fatty cheeses, full cream milk, fried food, lard, etc and
- MORE lean meat, poultry, fish, skimmed or semi-skimmed milk, grilled food, vegetables, fruit, cereals, rice, pasta, nuts, wholegrain bread, etc. And if you have to fry
- CHOOSE a vegetable oil such as sunflower oil, olive oil or rapeseed oil.

A high cholesterol level is more of a concern if other risk factors are present. A cholesterol blood test is not necessary for healthy people. A doctor may recommend it be checked in people with other risk factors or in people who develop heart disease.

EXERCISE . People who exercise regularly reduce their chance of developing heart disease. Some medical conditions may mean exercise cannot be done but for most people exercise is advised. No matter how old, it is never too late to start building up to fitness. Any exercise is good but vigorous exercise such as jogging, swimming, aerobics, etc, at least 3 times per week of 30 minutes or more gives most benefit.

DIABETES . Having diabetes increases the risks of developing heart disease. Therefore, any preventable risk factors such as smoking should be tackled.

GENDER. Up to the menopause women have less chance of developing heart disease than men. After the menopause the risks even out. This effect may be due to changes of the female hormones. Women past the menopause who take hormone replacement therapy (HRT) may have less chance of developing heart disease than those who do not but this is uncertain.