

CHOLESTEROL

Cholesterol is a hard fat-like substance produced naturally in the body, and bile acids, which aid digestion of fats. Although cholesterol is essential to good health, high cholesterol levels are thought to be linked with increased risk of heart disease.

Cholesterol is transported around the body via the blood attaches to specific proteins called lipoproteins. There are two main types of lipoproteins:

Low-density lipoproteins (LDL) carry most of the cholesterol (approx. 75%) and high concentrations in the blood reflect high cholesterol levels. High levels of LDLs eventually cause chronic furring of the arteries, called atherosclerosis or 'hardening of the arteries,' which is a major cause of heart attacks and associated circulatory problems.

High-density lipoproteins (HDL) carry much less fat and high levels in the blood indicate a lower risk of heart disease. Women tend to have higher levels of HDL, which reduces the risk of atherosclerosis and heart disease. The female hormone oestrogen helps to keep the levels of LDL circulating in the blood at a lower level, contributing to reduced risk of heart disease before the menopause.

Known causes of high cholesterol include obesity, diabetes mellitus, low thyroid function and hereditary factors. However, high cholesterol levels can be directly related to diet and lifestyle.

LIFESTYLE

Exercise - moderate exercise increases the levels of beneficial HDL, helping to protect the body from risk of heart disease.

Weight reduction — HDL levels are low in obese individuals and increase following weight reduction.

Smoking is a known risk factor associated with heart disease.

NUTRITIONAL GUIDELINES Saturated fats

When saturated fats are eaten in large quantities there is no regulating function in the body to reduce cholesterol production. Intake of saturated fats and therefore raises cholesterol levels, especially of the LDL type. For this reason saturated fat intake is the single most important factor that must be addressed if cholesterol is to be reduced. See the eating plan.

Artificially hardened or hydrogenated fats

There is growing evidence that unnatural fats, such as hard and soft margarines also contain chemical additives, and often contain a proportion of coconut or palm oil, both highly saturated fats. As an alternative spread to hydrogenated fats and butter, try using vegetarian pates or cold pressed oils. Health food shops stock brands of margarines containing no hydrogenated fats.

Healthy fats

Certain polyunsaturated fats are essential to health and are known to have a protective effect on the circulation, raising the level of beneficial HDLs and lowering the level of LDLs in the blood. Important polyunsaturated fats are found in oily fish, such as mackerel, trout, pilchards, salmon, herring, tuna, and sardines, also some vegetable oils including olive, sunflower and safflower oils. Vegetable oils should be cold pressed and eaten raw to obtain their nutritional value. Olive oil is the only suitable oil for cooking, as it is more stable when heated.

Cholesterol lowering foods

Certain foods help to reduce blood cholesterol levels and have a positive affect on the circulation. A high intake of fibre, found in wholegrain cereals, fruits and vegetables, help the body to break down and eliminate cholesterol. Garlic, onions, leeks, artichokes, legumes (beans), barley, oats and apples are known to be the most effective foods to help lower cholesterol levels.

THE EATING PLAN

Avoid saturated fats:

Butter, cream, full fat milk, cheese
Hydrogenated fats e.g. margarine, low fat creams
Condensed milk
Ice-cream
Chocolate spreads, toffee, fudge, cocoa butter
Coconut oil, palm oil, (often found in ice-cream)
Meats - bacon, pork, beef, salami, sausages, luncheon meat
Visible fats, suet (in mince meat) dripping
Fried foods
Chips, crisps
Pastries croissants, biscuits

Foods to eat in moderation

Chicken, turkey rabbit, game
Skimmed milk Cottage cheese
Natural yoghurt

EAT PLENTY OF:

Fruit (aim to eat 4 servings per day)
Vegetables - especially cabbage, artichoke, carrots, baked potatoes, onion, garlic and leeks.
Wholegrain, brown rice, millet, buckwheat, pasta (especially wholemeal), corn
Oats, porridge, oat bran, oatcakes
Oily fish - herring, mackerel sardines
Legumes: lentils, kidney beans, split peas, chickpeas, soya and tofu.
Nuts and seeds: walnuts, almonds and hazelnuts. Sunflower, pumpkin and sesame seeds.
Flaxseed oil and flaxseeds.

Fish oil capsules, evening primrose and borage oil capsules are also a good source of essential fatty acids.

Supplements

Vitamin C - 500mg daily
Vitamin E - it is a prostaglandin inhibitor and therefore reduces inflammation and hence pain, 900 i.u. daily
Pyridoxine (Vitamin B6) 100-150mg daily, improvement in 8-12 weeks
Copper bracelets
Antioxidants - reduce free-radical damage

Suggested Drinks

Coffee substitutes - dandelion coffee, bambu, yannah
Rooibosch tea
Nettle tea and other herbal teas
Mineral water
Fruit juices, diluted half with water