Cholesterol

What is cholesterol?

Cholesterol is a fatty substance which is found in the blood. It is mainly made in the body. Cholesterol plays an essential role in how every cell in the body works. However, too much cholesterol in the blood can increase your risk of heart problems.

High cholesterol is not a disease in itself, but a high level of cholesterol in your blood linked with a high level of triglycerides, can increase your risk of developing coronary heart disease CHD, angina, heart attack and stroke. CHD is caused by narrowing of the arteries that supply the heart with blood. Fatty deposits such as cholesterol, cellulary waste products, calcium and other substances build up in the inner lining of an artery. This restricts the flow of blood through the arteries.

Types of cholesterol

Cholesterol is carried in the blood by molecules called lipoproteins. The three main types are:

(1) Low density lipoprotein (LDL). This is often known as bad cholesterol and is thought to promote arterial disease. LDL carries cholesterol from the liver, through the bloodstream to the cells

(2) High density lipoprotein (HDL). This is often referred to as 'good cholesterol' and is thought to prevent arterial disease. This is a 'good' type of cholesterol because it removes bad cholesterol from the bloodstream rather than depositing in the arteries.

(3) Triglycerides are another type of fatty substance present in the blood. They are found in dairy products, meat and cooking oils. They are also produced by the liver. People who are very overweight, eat a lot of fatty and sugary foods, or drink too much alcohol are more likely to have a high triglyceride level.

What should my cholesterol levels be?

The amount of cholesterol in the blood can range for 3.6 to 7.8mmol/litre. A level about 6mmol/litre is considered as high, and a risk factor for arterial disease. Government advice recommends a target cholesterol level of less than 5. However, in the UK, two in three adults have a total cholesterol level of 5 or above. In England, men, on average, have a level of 5.5, and women a level of 5.6.

What causes high cholesterol?

A number of different factors can contribute to high blood cholesterol levels such as an unhealthy diet, lack of exercise or physical activity, obesity, smoking and drinking excessive amounts of alcohol.

There are also a number of treatable conditions that can cause high blood cholesterol. They include high blood pressure, diabetes, a high triglyceride blood level and medical conditions such as kidney and liver diseases and an under-active thyroid gland.

Fixed risk factors can also cause high blood cholesterol and they include a family history of heart attack or stroke, family history of a cholesterol related condition, being male (men are more at risk than women), age, early menopause in women and your ethnic group - people who are of Indian, Pakistani, Bangladeshi, or Sri Lankan decent have an increased risk of high blood cholesterol.

How can I reduce my cholesterol levels?

To help reduce your cholesterol level, you need to cut down on saturated fats and transfats and replace them with monounsaturated fats and polyunsaturated fats. You should also reduce the total amount of fat you eat.

Eat oily fish regularly. Oily fish provides the richest source of a particular type of fat known as omega-3 fats which can help to lower blood triglyceride levels and also helps prevent the blood from clotting, and help to regulate the heart rhythm.

Eat a high fibre diet. Foods that are high in 'soluble fibre' such as porridge, beans, pulses, lentils, nuts fruits and vegetables, can help lower cholesterol.

Doing regular physical activity can help increase your HDL cholesterol.

Eating sterol-enriched foods. There is evidence to show that substances called 'plant sterols' may help reduce cholesterol levels.

Sources British Heart Foundation and NHS Direct