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Cholesterol is a fat that is found in the blood, everyone has cholesterol in their body, it is a vital building block for our bodies. Cholesterol is used to build cell walls, to make hormones, fat soluble vitamins and bile acids, which are used to help digest food.

Cholesterol is measured in a simple blood sample or even from a finger prick blood test. The levels are dependent on genetics and lifestyle factors, such as obesity, inactivity and an unhealthy diet. Other people inherit genes which cause them to make too much cholesterol. People with high cholesterol have a higher risk of heart attacks, strokes and other health problems, the higher the cholesterol level, the higher the risk of complications.

The results may be confusing. The total amount of cholesterol in the blood is not the most important factor. Total cholesterol is made up of LDL-cholesterol (bad cholesterol- associated with health problems) and HDL-cholesterol (good cholesterol - higher levels reduce the risk of heart diseases). LDL cholesterol clogs up arteries, HDL cholesterol helps to clear them.

Triglycerides may also be measured; these are another form of fat and are also associated with an increased risk of heart disease and strokes. Triglycerides are more strongly associated with coronary heart disease in women than men. Drinking a lot of alcohol or eating lots of starchy foods and saturated fats contribute to high triglyceride levels. Polycystic ovary disease, diabetes, thyroid disease, obesity and kidney disease are all associated with abnormal triglyceride levels and increased risk of complications.

Young people with a family history of heart disease or high cholesterol may be offered cholesterol testing, particularly if they smoke or have diabetes, heart problems or high blood pressure. People with high levels may receive lifestyle advice, for example to stop smoking, or to adjust their diet to include lots of fruit, vegetables, wholegrains, fibre and healthy fats. More frequent testing may also be offered.

Cholesterol levels are elevated in pregnancy. Cholesterol is used to make new cells for the baby and as building blocks to make the hormones required to maintain a pregnancy, in fact levels can rise somewhere between 25 and 50%, however it is the good cholesterol which rises the most. Levels generally return to normal around 4 weeks after birth, it is very rare for high cholesterol in pregnancy to require treatment.

In general, women have higher levels of HDL (or good) cholesterol than men, this is due to the effect of oestrogen. This changes when women reach the menopause, HDL levels fall, total cholesterol and LDL cholesterol levels start to rise, and the risk of cardiac disease also increases.

High cholesterol is managed with a combination of lifestyle modifications and if necessary, medication.

Dietary advice includes avoiding red meat, butter, fried foods, cheese and saturated fats. Instead the diet should include fruits, vegetables, lean proteins and high fibre foods such as oats and beans. Oats especially contain a protein called beta-glucan which is effective at binding cholesterol in the gut and allowing it to pass out of the body. Eating good fats such as those found in olive oil, nuts and fatty fish such as mackerel, trout or salmon are beneficial. Oily fish contain omega-3 fatty acids which increase the HDL proportion of cholesterol and we should aim to eat these at least once a week. Nuts are a valuable source of fat-soluble vitamins and plant sterols which also bind bad cholesterol.

Stopping smoking, losing weight and increasing activity levels to around 30 mins exercise on 5 days a week. are all factors shown to reduce LDL cholesterol. Weight loss does not have to be extreme, 10% reduction is effective, particularly if the weight is concentrated around the tummy. Reducing alcohol intake is effective in helping weight

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loss and reducing high triglyceride levels.

If you are felt to be high risk, with heart disease, vascular disease, high blood pressure, or diabetes, a medication called a statin may be prescribed for you, the effect will be monitored with further blood tests to ensure the levels improve.

If you have any further questions, please contact us at drbrame@theclinic.co.uk

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