

CHOLESTEROL

What is Cholesterol

Cholesterol is an essential component of the body being a building block for the production of cells and steroid hormones. It is only harmful when it is present in the blood stream in excess. The high level we see in Western civilisation that leads to heart disease is a product of our poor diets and lack of exercise. Cholesterol levels in rural China are 3 mmol/l and heart disease is less common. Cholesterol is insoluble in water and needs to be carried in packets (particles) in the blood stream. There are two kinds of cholesterol particles, LDL (bad cholesterol) is the harmful form of cholesterol and HDL (good cholesterol) which confers some protection from heart disease. When cholesterol is measured the total level and the level of HDL are given. It is important when learning your cholesterol level to know if you have mainly good or bad cholesterol.

What Level is Recommended?

The ideal level should be lower if you already have a problem with your heart such as a heart attack, angina, bypass surgery or an angioplasty or trouble with other blood vessels such as poor circulation or a stroke. In this case you need to ensure the LDL cholesterol level is below 1.8mmol/L. Triglyceride levels should be below 2 mmol/l. These parameters apply to those at high risk of vascular disease, namely a strong family history, diabetes, hypertension, renal disease, metabolic syndrome or of Torres strait descent

How Can I Improve my Cholesterol Level?

The liver makes most of your cholesterol with dietary intake making up about 10%. This means that improving your diet alone (unless extreme measures are taken) is generally not enough. However, good diet with low intake of saturated fat (animal fat) and cholesterol containing foods (egg yolks) is an essential part of management to assist the effect of medication. Short term reduction in cholesterol levels from diet are usually not sustained.

Medication is often required to lower cholesterol levels to an acceptable range. The commonest group of drugs are called **HMG CoA reductase inhibitors** (Siinvastatin **LIPEX**, **ZOCOR**, Atorvastatin **LIPITOR**, Fluvastatin **VASTIN**, Pravastatin **PRAVACHOL**, Cerivastatin **Crestor**). They inhibit an enzyme in the liver to reduce cholesterol production. Trials have shown that the use of these drugs can reduce the incidence of heart attacks. The fabric acid derivative Gemfibrozil **LOPIOD**, **JEZIL** or fenofibrate **Lipidil** are useful when the predominant problem is high triglyceride levels.

What are the Side Effects of Treatment?

These tablets are remarkably safe. In a small number of patients tests of the liver will reveal minor changes in the blood results necessitating stopping the drug. Rarely, patients may experience muscle pains or a rise in muscle enzymes on blood tests forcing the drug to be stopped.