# Knowledge about Cholesterol .....Counts!

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A Science of Medicine
The Art of Care

Research shows that more than 5.5 million South Africans are at risk for disease due to their high cholesterol levels. However, cholesterol is often misunderstood and few people recognize good cholesterol as a natural and essential part of our body. Understanding cholesterol, its link to diet and taking the necessary steps to best prevent bad cholesterol is important in the quest to maintain optimum health.

Cholesterol is a waxy, fatlike substance synthesized in the liver that the body needs to function normally. It is naturally present in cell walls or membranes everywhere in the body, including the brain, nerves, muscles, skin, liver, intestines, and heart. The body uses cholesterol to produce many hormones, vitamin D, and the bile acids that help to digest fat. It takes only a small amount of cholesterol in the blood to meet these needs. If a person has too much cholesterol in the bloodstream, the excess may be deposited in arteries, including the coronary arteries of the heart, the carotid arteries to the brain, and the arteries that supply blood to the legs. Cholesterol deposits are a component of the plaques that cause narrowing and blockage of the arteries. These blockages, if left unchecked, could result in heart and artery disease, stroke, angina or heart attack.

# What is High Cholesterol?

Hypercholesterolaemia, the medical term for high cholesterol simply means elevated levels of cholesterol in the blood. Cholesterol is part of a lipid (fat) profile that indicates whether yourre susceptible to heart disease or not. LDLIs, HDLIs, Triglycerides and Cholesterol comprise this lipid profile. According to The Heart Foundation of South Africa it is recommended that your total cholesterol reading should be below 5 mmol/l. The value for HDL (High Density Lipoprotein, considered "good" cholesterol), should be greater than 1,2 mmol/l, and the value for LDL, (Low Density Lipoprotein, "bad" cholesterol) should be less than 3 mmol/l.

According to Tibb philosophy, high cholesterol results from a cold and dry imbalance. The excess of cold means there is inadequate supply of heat for sufficient metabolism of ëcholer, or bile. The results of high cholesterol are not only fatty deposits in the arteries, but also gallstones, impotence, mental impairment and high blood pressure.

# **High Cholesterol Causes**

There are a variety of factors including heredity, diet, and lifestyle that lead to high cholesterol. Less commonly, underlying illnesses affecting the liver, thyroid, or kidney may also affect blood cholesterol levels.

**Heredity:** Genes may influence how the body metabolizes LDL (bad) cholesterol. Familial hypercholesterolemia is an inherited form of high cholesterol that may lead to early heart disease.

Weight: Excess weight may also increase your LDL cholesterol level.

**Diet:** Excessive intake of dairy, cold foods, hydrogenated oils, processed meats and flours, and rich fatty foods are all known to be responsible for increasing bad cholesterol.

**Physical activity/exercise:** Regular physical activity may lower triglycerides and raise HDL (good) cholesterol levels.

**Age and sex:** Before menopause, women usually have lower total cholesterol levels than men of the same age. As women and men age, their blood cholesterol levels rise until about 60-65 years of age. After about age 50 years, women often have higher total cholesterol levels than men of the same age.

**Mental stress:** Several studies have shown that stress raises blood cholesterol levels over the long term. One way that stress may do this is by affecting your habits. For example, when some people are under stress, they console themselves by eating fatty foods.

## **Testing your Cholesterol levels**

High Cholesterol levels are often not symptomatic, unless already manifesting as a cause of cardiovascular disease. It is recommended that a healthy adult should have their cholesterol tested at least once a year. More accurate testing in the form of blood tests is often required for those who have other predisposing factors to heart disease such as hypertension, diabetes or who may be overweight.

### **Treatment and Prevention**

High cholesterol is one of the several risk factors for coronary heart disease. A healthcare practitioner will consider a person's overall risk when assessing their cholesterol levels and discussing treatment options. If a person has high lipoproteins and thus high cholesterol, their doctor will work with them to reduce their levels through suitable dietary and drug treatment. Depending on a person's risk factors for heart disease, target goals may differ for lowering their LDL cholesterol.

Tibb practitioners will further advise a person with high cholesterol to exercise, lose weight and make lifestyle changes. Most importantly, dietary changes will have to be considered.

### Dietary advice includes:

Increasing foods such as garlic, ginger and onion.

Eating "good" oils such as olive oil. Olive oil is hot and moist and will combat the cold and dry imbalance of high cholesterol.

Drink fresh juices such as carrot, celery and beetroot

Eat more pulses and legumes such as beans, lentils and soya

Increase intake of whole grains and flaxseed

Avoid processed oils, alcohol, cakes, carbonated drinks, deep fried and refined foods

Abstain from alcohol and tobacco

Invest in a supplement of Omega 3

Above all be aware that high cholesterol can be effectively managed.