

# Treating high cholesterol

Cholesterol has been, by far, one of the most investigated and dynamic topics in cardiovascular disease management and prevention. The second most commonly prescribed medication, according to recent statistics is Zocor, a cholesterol lowering drug. Many studies and large trials have shown the benefits of lowering cholesterol for the prevention and treatment of coronary artery disease.

What is typically measured during a routine blood work is not cholesterol but rather lipoproteins which are the transporters of cholesterol. This lipid waxy material as we know it is essential for our body to function properly.

Cholesterol is synthesized mainly in the liver and is the main component of cell membranes and maintaining its integrity. Cholesterol is also important in the synthesis of vitamin D and is precursor of certain hormones such as Cortisol, Estrogen, Progesterone, and Testosterone.

Cholesterol can be broken down to several different categories.

The first category is referred to as low-density lipoprotein (LDL) commonly referred to as the “bad cholesterol.” LDL transfers cholesterol from the liver to the tissues within our bodies.

High levels of LDL are known to be associated with atherosclerosis commonly referred to as plaque formation of the arteries. Significant atherosclerosis can result in stroke, heart attack,

peripheral artery disease as well as coronary artery disease.

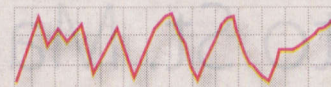
The second category looked at during a cholesterol blood work evaluation is the high-density lipoprotein (HDL) commonly referred to as the “good cholesterol.” HDL is the transporter that takes cholesterol from the tissue back to the liver for disposal.

High levels of HDL have been associated with lowering risk factors of cardiovascular disease. The final category looked at when evaluating one's cholesterol are triglycerides – free fatty acids that are measured in the blood. High numbers are also associated with cardiovascular disease. These elevated numbers have also been known to cause pancreatitis which is the inflammation of the pancreas which can be harmful to the body.

A healthy lifestyle is an important factor in modifying increased cholesterol levels. Lack of activity, obesity, smoking and eating fatty and greasy foods will ultimately increase LDL and triglycerides while decreasing HDL levels.

Eating healthy fatty foods which are high in omega acids have been shown to increase HDL levels and promote cardiovascular protection. These foods include fish such as salmon, nuts, whole grains and certain fruits and vegetables. Recent studies have shown that by eating an apple a day lowers LDL levels. It is important for those individuals that consume

## THE HEART BEAT



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alcohol to discontinue their use due to the fact that excessive alcohol consumption chronically increases triglyceride levels.

In few occasions, very high levels of LDL or triglycerides are due to genetic disease called Familial Hypercholesterolemia. Typically, the onset of disease manifestation such as heart attacks and stroke are in younger age – in 20s and 30s. Once familial hypercholesterolemia is established, the family members should be screened.

Treatment of elevated cholesterol depends on underlying co-morbidities. Many new trials have discovered that maintaining decreased LDL and increased HDL levels is crucial for a longer survival. This has also been proven to reduce the risk of heart attacks with patients who have coronary artery disease or diabetes.

Patients with established sympto-

matic atherosclerosis such as heart attack and stroke need to be treated with a form of medication known as statins, regardless if the cholesterol levels are normal. Statins have plaque stabilization properties which prevent future detrimental events.

Other medications are available to help increase HDL and lower triglyceride levels. In some instances, the combination of different forms of medications may be necessary. It is important to note that a close monitoring for liver damage and muscle breakdown for patients on cholesterol lowering medications is vital. It is essential to consult with a doctor about these types of treatment modalities and evaluate whether they may be beneficial to you.

A healthy living state can stabilize the cholesterol panel in many patients who may not need medical therapy.