

DEALING WITH CARDIOVASCULAR DISEASE FROM A NUTRITIONAL PERSPECTIVE: PART TWO

Written by David Kroll, Certified Nutritionist

www.milkandhoneyhealthfoods.com healthy@aol.com

You can lower LDL cholesterol levels in the body by moving bile through the colon and out the stool. Bile is a cholesterol derivative which the body uses to breakdown fats in the digestive process. Since bile is largely made of cholesterol, failure to remove bile can result in re-absorption of cholesterol and thus an increase in circulating cholesterol in the arterial system which may end up as deposits in the arteries. Consuming forty to fifty grams of water soluble and other fibers per day will insure the elimination of cholesterol containing bile. Oat bran, rice bran, apple pectin, flax fiber and psyllium are all examples of fibers that will facilitate this process.

Many people are using prescription Statin drugs such as Zocor, Lipitor and Mevacor to lower cholesterol levels. Statins lower cholesterol by inhibiting the enzyme HMG-CoA Reductase that catalyzes the production of cholesterol in the liver. The mechanism by which Statin drugs lower cholesterol also inhibits the biosynthesis of CoQ10 in the liver. CoQ10 is absolutely necessary for proper function of the heart as it is vital to the energy making process of the heart muscle. Some doctors have observed a marked increase in heart failure, among those using statin drugs. It even has a name, "Statin Cardiomyopathy." **Anyone using Statins or experiencing cardio problems should take a CoQ10 supplement.** CoQ10 can also be taken as a preventive as it will support cardio function and perform strong antioxidant activity in the body.

A natural substance called **Red Yeast Rice Extract** contains similar compounds to that found in Statins. Red yeast Rice extracts lower cholesterol levels by the same mechanism as Statins but because they are weaker, they generally don't have the negative side effects of toxicity to the liver or muscle weakness that Statins tend to have. Since Red Yeast Rice extracts interfere with COQ10 production just like Statins, users should supplement with **COQ10**.

Cautionary note: When Statins or Red Yeast Rice products are consumed in conjunction with Grapefruit juice, the blood concentration of their active ingredient Mevinolin is increased by up to 15-fold. Such increases are dangerous. Don't drink grapefruit juice when taking these products.

Another natural substance shown to lower cholesterol is **Policosanol**, a lipid alcohol derived from sugar cane wax. A number of studies show this substance to effectively lower total cholesterol, raise HDL levels and guard against LDL oxidation. This product is well tolerated and has no significant side effects.

Most of your cholesterol is made in the liver. Only animal products contain cholesterol and eating them is not a direct cause of high cholesterol levels as is often assumed. They can, however, be an indirect cause. Triglyceride fats, which are found in animal products, will tend to push up your own livers production of cholesterol as will

the consumption of hydrogenated fats. All hydrogenated fats such as margarine should be eliminated from the diet. Hydrogenated fats are man-made fats that create what are called trans fatty acids. Trans fats are stickier than normal “cis” fats like found in butter. They encourage fatty deposits in the arteries, liver, and other body organs. These fats also make your blood clotting platelets more sticky and therefore increase the risk of stroke and heart attack. Trans fats have been shown to raise blood levels of both cholesterol and triglycerides and in general create free radicals. Trans fats also interfere with the action of what are called the essential fatty acids.

ESSENTIAL FATTY ACIDS AND CVD: Of all the fats you consume, the two essential fatty acids (EFA’s), linoleic (omega 6) and linolenic (omega 3), are the most important to your health. These fats must be obtained from the diet, as your body does not make them. Since EFA’s are very sensitive to heat and can easily rancidify, they are generally removed in the processing of foods. If you’re eating the standard American diet of packaged, canned and boxed food, the chances are that you are deficient in the EFA’s, especially the omega 3 linolenic acid. Good sources of both EFA’s are flax seed, soybeans, pumpkin seeds, walnuts, and most dark green leafy vegetables.

In the body, omega 3 EFA linolenic acid converts to the fatty acids EPA (eicosapentaenoate acid) and DHA (docosahexaenoic acid). EPA and DHA lead to reduction in inflammation, help thin the blood, and play a role in the regulation of cholesterol and blood sugar metabolism.

As we get older or become diabetic, our bodies do not efficiently convert linolenic acid to EPA and DHA. Fortunately, you can obtain EPA and DHA direct from the diet by eating fish such as salmon, sardines, cod and herring. Taking a high quality fish oil supplement will insure a steady intake of these important omega 3 fatty acids.

HOMOCYSTEINE AND CVD: Homocysteine is an amino acid formed when the amino acid methionine found in red meat and dairy products is metabolized in the body. Excessive Homocysteine may cause abnormal blood clotting, aneurysms, hardening of the arteries, deposition of cholesterol around the heart muscle, angina, stroke and other cardiovascular problems. When homocysteine builds up to excessive levels in the blood it creates inflammation which damages the walls of arteries creating the need for the body to repair such damage which results in plaque buildup. Elevated homocysteine has been identified as a major risk factor in CVD

The body will break down homocysteine and convert it back to methionine with the help of **vitamins B6, folic acid and B12**. An underlying cause of elevated homocysteine levels appears to be under active thyroid function, also known as hypothyroidism. Research has shown that correction of underactive thyroid function automatically normalizes homocysteine levels in the blood. The minerals **iodine and selenium** are important to proper thyroid function and are often lacking in the diet due the depletion of these minerals in our soil. It has also been found that chlorine and fluoride in our water supply and various pesticides, herbicides and fungicides, interfere with thyroid function.

You can easily determine thyroid activity with the following simple test: Before going to sleep, place an oral thermometer at an accessible place beside your bed. The very moment you awake, after a good night of sleep, stay in bed and place the thermometer firmly in the armpit and leave it there for ten minutes. If your reading is lower than 97.8, (normal resting temperature), it's an indication that your thyroid is underactive. It is wise to repeat this test several times in a row in order to make a proper determination. If you are a women of child bearing years, perform this test on only the second and third days of menstruation for a more accurate reading.

You can improve thyroid function by taking a good quality thyroid supplement and adding an **iodine and selenium supplement** to your diet. I recommend drinking distilled or reverse osmosis treated water to get rid of chlorine and fluoride and eating organically grown fruits and vegetables as much as possible to limit ingestion of chemicals used on these foods. A good quality **B-vitamin complex** will insure you are getting the B-6, B-12 and folic acid necessary for the breakdown of homocysteine.

C-REACTIVE PROTEIN AND CVD: C-reactive protein (CRP) is a special type of protein produced by the liver that is only present during episodes of acute inflammation. The most important role of CRP is its interaction with the “complement system” which is one of the body's immunologic defense mechanisms. Recently, new studies have suggested that CRP may also be elevated in heart attacks. The role of CRP in coronary artery disease remains unclear. It is not known whether it is merely a marker of disease or whether it actually plays a role in causing atherosclerotic disease. Many consider elevated CRP to be a positive risk factor for coronary artery disease.

Many studies have shown an association between elevated levels of inflammatory markers (including CRP) and the future development of heart disease. This is true even for apparently healthy men and women who have normal cholesterol levels. In patients already suffering from heart disease, doctors can use CRP levels to determine which patients are at high risk for recurring coronary events by performing a simple blood test. The best way to reduce inflammation is to follow the dietary guidelines already discussed in this series. It is also very helpful to supplement with a high quality green food concentrate such as **BarleyLife** and take a high quality multiple vitamin and mineral supplement. If necessary, an additional antioxidant supplement can be added.

Next month we will discuss blood pressure and its relationship to cardiovascular health. Visit www.milkandhoneyhealthfoods.com for comprehensive articles on many aspects of health and nutrition.